DOLENTIUM HOMINUM
No 19 (Seventh Year - No. 1) 1992

JOURNAL OF THE
PONTIFICAL COUNCIL FOR
PASTORAL ASSISTANCE TO
HEALTH CARE WORKERS

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Published three times a year

Subscription rate:
one year Lire 60,000
(abroad $ 60 or the corresponding amount in local currency postage included)

The price of this special issue is Lire 60,000 ($ 60)

Printed by
Vatican Press

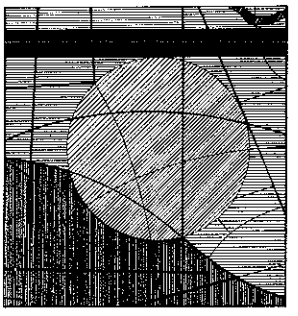
Sped in abb post gr IV/70%
I Quadrimestre 1992

Proceedings of the Sixth International Conference

organized by the Pontifical Council for Pastoral Assistance to Health Care Workers

Drugs and Alcoholism against Life

November 21-22-23 1991



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THE ADDRESS OF HIS HOLINESS JOHN PAUL II TO PARTICIPANTS IN THE SIXTH INTERNATIONAL CONFERENCE

Drug Addiction and Alcoholism Frustrate the Person's Very Capacity for Communion and Self-Giving

1. *I am especially pleased to be present once again at the International Conference for study and reflection which the Pontifical Council for Pastoral Assistance to Health Care Workers has organized each year since it was instituted to call the attention of Christians and, more generally, all men of good will to central questions of considerable current interest affecting medical science, ethics, and pastoral care in health.*

My cordial greeting is addressed, first of all, to Cardinal Fiorenzo Angelini and the members of his team, to whom this meeting should be credited; and my greeting at the same time goes out to the illustrious guests from different nations, to the scientists, researchers, doctors, sociologists, and theologians who are taking part in this important symposium, devoted to a specific problem which in our days impresses itself with supreme urgency on the attention of society as a whole.

Drugs and alcoholism against life: *this is the topic to which your reflection is directed. Quite appropriately, it is preceded and in a sense prefaced by the meaningful phrase of St. Paul:* Contra spem in spem *("hoping against hope"), as if to claim for those who, following the example of the aged patriarch Abraham, trustingly believe in God's promises, the right not to abandon hope ever, even when, humanly speaking, such hope might seem empty and groundless. Drug addiction and alcoholism, in view of their intrinsic seriousness and devastating spread, are two phenomena which threaten the human race, shattering—in the individual, in the family environment, and in the social fabric the deepest motives for the hope which, to be such, must be hope in life—hope of life.*

2. *On careful consideration, indeed, it is easy to discover a twofold connection between these phenomena and despair. On the one hand, at the root of alcohol and drug abuse—though a painful complexity in causes and situations exists—there is usually an existential void due to the absence of values and a lack of self-confidence, of confidence in others and in life in general; on the other, the difficulties which are encountered to get out of that situation, once established, aggravate and amplify the sense of despair, and the victims, their families, and the surrounding community are thereby led to an attitude of resignation and surrender.*

Over the course of the years, moreover, the alcoholism and drug picture has grown out of all proportion, and today we are faced with insidious social plagues which have spread throughout the world, fostered by huge economic interests, and sometimes political ones as well. While many lives are thus consumed, the powerful drug lords arrogantly abandon themselves to luxury and dissipation. If considered in human terms, the reasons for despair (contra spem) would seem to prevail, especially for the families which, having been marked and directly stricken by the sad phenomenon, do not feel sufficiently assisted and protected. With deep affection I am close to them and share their sorrow; I would like to meet them one by one, to take them some of Christ's consolation (cf. 2 Co 1:5) and spur them to react against the sense of abandonment and the temptation to become discouraged.

Very often, when thinking of the victims of drugs and alcohol—generally young people, though their spread among adults is a source of growing concern—I am led to recall the man in the Gospel parable who, when assaulted by criminals, was robbed and left half dead along the road to Jericho (cf. Lk 10:29-37). In fact, these, too, strike me as people "on a journey" who are searching for something in which to believe in order to live; they instead run up against the merchants of death, who assault them with the allurement of illusory freedoms and false prospects for happiness. These victims are men and women who, unfortunately, find themselves robbed of the most precious values, profoundly

wounded in body and in spirit, violated in the depth of their consciences and offended in their dignity as persons. In these situations, the reasons leading one to abandon all hope might really appear strong.

3. *While aware of this, you and I nevertheless wish to testify that there are reasons to go on hoping and they are much stronger than those against hope (contra spem in spem). Indeed, today, too, as in the Gospel parable, Good Samaritans are not lacking who, with personal sacrifice and sometimes at a risk to themselves, are able to "become the neighbor" of those in difficulty. For this reason, I want to say to the families touched by trial: Do not despair! Rather, pray with me that these Good Samaritans working at public facilities and in volunteer groups will multiply, among private citizens and the leaders of nations, and a united front will thus be formed engaged increasingly not only in prevention and the rehabilitation of drug addicts, but also in denouncing and legally prosecuting those trafficking in death and in demolishing the webs of moral and social disintegration. We are now faced with a phenomenon of terrifying scope and proportions, not only because of the very high number of lives brought to an end, but also because of the worrisome spread of the moral contagion, which for some time now has been reaching the very young as well, as in the case unfortunately, not uncommon of children forced to become pushers and, along with their peers, consumers themselves. I thus repeat the grieved appeal I addressed several years ago to the different public bodies, both national and international, that they "curb the expansion of the drug market. To this end, the interests of those speculating on that market must first of all be brought to light; the instruments and mechanisms they make use of should then be identified; and, finally, the coordinated, effective dismantling of these ought to begin. In addition, we must work for the integral development of those populations which, in order to subsist, devote themselves to the production of such substances. At the same time, an attempt will be made to promote interconnected service networks working for real prevention of this evil and sustaining the rehabilitation and reintegration of the young people affected by it"* (Address of September 23, 1989)

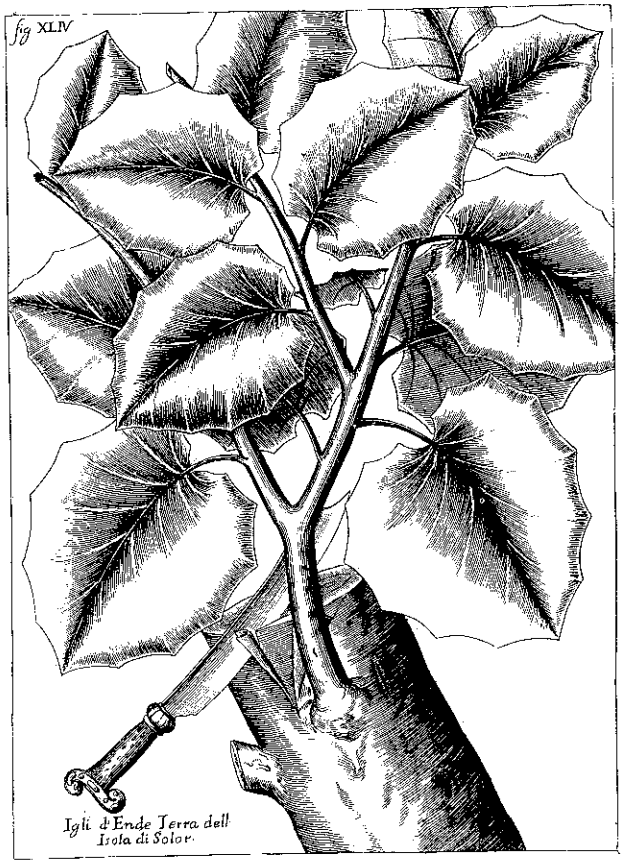
4. *There is certainly a clear difference between resorting to drugs and turning to alcohol: whereas the moderate use of alcohol as a drink does not, in fact, clash with moral prohibitions and only abuse is to be condemned, taking drugs is, on the contrary, always illicit, because it involves an unjustified and irrational renunciation of thinking, willing, and acting as free persons. Moreover, recourse to psychotropic substances by medical prescription to mitigate suffering in carefully determined cases must itself abide by extremely prudent criteria to avoid dangerous forms of habituation and dependence. The task of health authorities, physicians, and the officers of research centers is to work to reduce such risks to a minimum through measures for prevention and information.*

Drug addiction and alcoholism are against life. *We cannot speak of the "freedom to take drugs" or the "right to drugs," for the human being has no right to harm himself and neither can nor should ever abdicate the personal dignity which comes to him from God! These phenomena it must always be remembered are not only detrimental to physical and psychic well being, but frustrate the person precisely in his or her capacity for communion and self giving. All of this is particularly serious in the case of the young. Theirs is, in fact, the age which opens to life, the age of the great ideals, the season of sincere, oblational love.*

I wish, therefore, to say once more to the young, with grieved solicitude: Beware of the temptation of certain illusory, tragic experiences! Do not surrender to them! Why head into a deadend street? Why renounce the full maturation of your years, accepting an early senescence? Why waste your lives and your energies, which can instead find joyful affirmation in the ideals of honesty, work, sacrifice, purity, and true love?

That's it: love! For the victims of alcoholism, for the family and social communities which suffer so much on account of this infirmity of their members, the Church in the name of Christ proposes as an answer and an alternative the therapy of love: God is love, and whoever lives in love implements communion with others and with God. "He who does not love remains in death" (1 Jn 3:4). But whoever loves tastes life and remains therein!

Dear brothers and sisters, the phenomena of drugs and alcoholism cannot be combatted nor can effective action be taken for the healing and recovery of their victims unless the human values of love and life are first restored—the only ones capable, especially if illuminated by religious faith, of giving full meaning to our existence. Society cannot and must not oppose its indifference against the sense of being outsiders which so often afflicts drug addicts or regard itself as absolved simply because it supports the action of volunteers, which is, indeed, irreplaceable, but unavoidably insufficient alone. Laws are needed! Facilities are needed! Bold action is required!



5. As it is up to the Church, then, to work on a moral and pedagogical level, intervening with great sensitivity in this specific area, so it is up to public institutions to adopt a serious policy aimed at healing situations of personal and social unease, among which the crisis of the family —principle and foundation of human society— unemployment among young people, housing problems, social and health services, and the educational system stand out. In this campaign for prevention, treatment, and recovery the interdisciplinary research to which this Conference has made such a significant contribution has a decisive role to play.

In congratulating you on the efforts and results of this useful scientific colloquium, I also wish to address a word of sincere appreciation to the vast multitude of young and not-so-young people participating in rehabilitation programs and every other initiative directed towards this noble purpose. With the assurance of my fervent prayer and my heartfelt solidarity, I reiterate my invitation for them to look trustingly at life, to believe in the inestimable greatness of the destiny of the human person, who—I love to repeat—is a reflection of the very image of God. In a word, I repeat once again the invitation to hope against all hope: contra spem in spem, and I particularly address it to those who, with admirable generosity and in a Christian spirit, become neighbors to their brothers and sisters in need of help because they have been affected and overwhelmed by these two deplorable phenomena.

The Church, which desires to work in society as the yeast of the Gospel—and this is her duty— is and will continue to be ever at the side of those facing the social plagues of drugs and alcoholism with responsible dedication to encourage and support them with the words and the grace of Christ. He is the light that illuminates man and can lead him to the destination of a more mature and worthy existence.

May the Most Blessed Virgin accompany the generous efforts of all who devote their energies to this arduous and valiant service. Upon them, in the hope of supernatural assistance, I wholeheartedly bestow my Blessing.

CARDINAL ANGELINI'S WORDS OF WELCOME

Holy Father,

as we prepare to receive your paternal and long-awaited words to close the sessions of this Sixth International Conference, devoted to the very serious subject of the fight against drugs and alcoholism, I cannot fail to convey to Your Holiness the heartfelt gratitude of all present for the deep sensitivity and marked interest with which you, Holy Father, have sustained, followed, and blessed our work.

With the conviction, as you confirmed in the Encyclical Centesimus Annus, that drugs, in their most varied expressions, including alcoholism, "seek to fill the spiritual void which has come to be created" (no. 36) in such vast areas of contemporary society, the Pontifical Council for Pastoral Assistance to Health Care Workers, through this International Conference, which is so representative, has wished to associate itself with the commitment whereby Your Holiness works for the affirmation and defense of the dignity of the human person.

Your words, Holy Father, are the most eagerly awaited and effective conclusion to our sessions, and we, as the Pontifical Council, intend to be faithful to your directives, impressing upon our pastoral efforts the prompt, bold resolution with which you affirm and defend, on behalf of Christ's teaching, the rights of every human being, particularly of the weakest and most helpless.

Aware that the Church, which has always been solicitous towards the suffering, recognizes in this commitment of hers a qualifying, fundamental aspect of her mission, we wish to promote convergent action for training and prevention, not only within Catholic institutions, but among all men of good will, so that those spreading the culture of death will be opposed, as you love to repeat, by the magisterium and ministry of a culture of life, the presupposition for a society which is healthy because it is based on order solidarity, justice, and peace.



MESSAGE OF THE PRESIDENT OF THE UNITED STATES OF AMERICA GEORGE BUSH TO PARTICIPANTS IN THE CONFERENCE

On behalf of all Americans, I am delighted to send greetings to the participants in the Sixth International Conference organized by the Pontifical Council for Pastoral Assistance to Health Care Workers. I commend you for your demonstrated commitment to the fight against drug and alcohol abuse, and I am heartened by the personal interest that His Holiness Pope John Paul II has taken in your work.

The theme of your conference, "Hoping Against Hope," underscores the tragedy of drug and alcohal abuse and the challenge that it poses to the community of nations. Substance abusers bring suffering not only to themselves but also to their families, their friends, their communities, and their co-workers. America has seen the violence and the waste of human life and potential that are caused by this scourge, yet we know that drug abuse has no borders: nearly one-third of the world's cocaine and most of the world's heroine are consumed outside of the United States.

We will continue to combat both the supply and the demand for drugs through coordinated treatment, prevention, and law enforcement efforts; however, there is a fundamentally higher objective that we must strive to achieve. We must strengthen, each of our nations, those values and ideals which are the foundation of strong, loving families and stable, caring communities. We must emphasize the virtues of self-respect and self-control, as well as respect for human life. We must also stress the difference between liberty and license as we work to promote individual rights and freedom. Clearly, religious faith plays a central role in achieving these important goals, and that is why pastoral leadership in the fight against drugs is so important. Whether they counsel health care workers and other professionals or reach out directly to people in need, members of the clergy have a vital role to play in the prevention of substance abuse and in providing assistance to recovering addicts.

While government can provide vital direction and support in the fight against drugs, we must work together if we are to prevail. Parents, public officials, educators, health care professionals, business leaders, and members of the clergy—all of us must work together not only to eliminate substance abuse but also to offer the world a better way of living. That is why the United States is pleased to participate in this unique international conference.

Barbara joins me in sending best wishes for a productive series of discussions. God bless you.

INTRODUCTORY REMARKS BY FIORENZO CARDINAL ANGELINI

Fighting for Life

This Sixth International Conference, sponsored by the Pontifical Council for Pastoral Assistance to Health Care Workers, proposes for our examination a question which is indeed no less relevant than those topics treated in preceding years at this representative and authoritative See. Drug addiction and alcoholism, so common to the collective experience, constitute a challenge to the development model at the base of the society in which we live; it is a society which, because of the growing interdependence among nations, is painfully experiencing a rapid expansion of the structures of sin, while the effort to overcome them becomes ever more arduous and fatiguing when viewed from the perspective of the creation of that new world order passionately expressed by the Holy Father, John Paul II, as "the civilization of love." Significant, indeed, is the fact that the question to be studied by this Conference coincides with the very year in which both the Church and the world celebrate the first centenary of the Encyclical *Rerum Novarum* by means of the reading, interpretation, and updating provided by the Holy Father, John Paul II, in his Encyclical *Centesimus Annus*.

In this document, the Holy Father considers the spread of drugs to be a "sign of a serious dysfunction of the social system," since it presumes "a materialistic and, in a sense, destructive reading of human needs" (*Centesimus Annus*, 36).

The scientists, researchers, theologians, sociologists, those responsible for pastoral assistance in general, and health care workers in particular, who will offer to this Conference their most recent considerations and their vast experience, are summoned not only to take a position regarding the grave reality of the phenomena of drug addiction and alcoholism, but—according to the spirit of these International Conferences—to propose, as well, concrete and constructive alternatives which, through the light and strength which derive from faith, offer responses of hope, even though the arguments against hope often seem to prevail.

In spem contra spem. The effects of drug and alcohol abuse, more than other forms of consumerism that exploit the fragility of the human condition, not only concern physical pathology, but also psychological and spiritual infirmity, which in the victim reaches the point of extinguishing the most profound reasons for having hope.

This Conference does not intend to provide a mere display of careful analysis of data relevant to the worldwide spread of these two rather extensive evils in our times, but, above all, to give rise to the capacity and the duty to originate a constructive proposal.

The terms *to defend oneself* against drugs, *to fight* drugs, and *to overcome* drugs are all precise expressions concerning the aim which is proposed, but they remain ambiguous from a subjective point of view in as much as they seem to imply that the user of the terminology is immune to the fact, and above all, free from responsibility as to its spread. The same reasoning also applies to alcoholism.

If so many of our brothers, especially adolescents, are not capable of avoiding temptation to experiment with drugs, and so many others are not able to free themselves from drug-addiction, it is also due to our obstinate estrangement from the tragedy which they personally, and their families, are living.

Evil always floods over where there are not enough dykes built by good.

The entire human community, and particularly those who act inspired by their faith, has the duty to erect dykes of hope against the floods of desperation, since the source of deviant choices which lead to drug-addiction and alcoholism is first of all a pathology of the spirit, induced through omission and social sin which involve the responsibility of every man.

It is obvious that the spread of drugs and alco-

holism is a sign of a crisis in values. We must nevertheless ask ourselves which values are promoted in today's world by the mass media, by the political structures of society, by organized labor, by the very notion of progress? What are the values which constitute the good fortune of so many non-addicts? Are they indeed real, authentic values, worthy of being imitated, or are they, on the contrary, pseudo-values which marginalize youth, those who are weakest and most defenseless? It is enough to recognize the fact that the most active and powerful drug traffickers are certainly not addicts!

Paradoxically, recourse to drugs and also to alcohol demonstrates that man cannot live without an ideal which exalts him, which helps him to transcend his limits, providing a transcendent meaning to his existence.

Perhaps even more than past epochs of history, our times prod man towards the search for a modification of his own psyche which would fortify him so as not to succumb to fears, dangers, insecurity. A psychological change which enriches and crowns his aspirations in an encounter with a reality capable of giving true significance to his own life.

The spirit which animates this International Conference can be no other than to offer a ray of hope, to suggest ways of involving the world-community, especially to help the younger generations free themselves from the very serious risks run by resorting to drugs and alcohol.

This is not the only purpose: it is also clear that the activity of those who make their iniquitous fortunes from the drug and alcohol markets must be checked and overcome.

In living out its founding motive to study the worldwide problems of health policy and care, and to provide them with Christ's answers, and in His Light, offering responses of the Church, the Pontifical Council for Pastoral Assistance to Health Care Workers wishes to fulfil its duty in collaboration with those individuals and institutions that are dedicated to fighting the destructive effects of drugs and alcohol, and also seeks to promote and stimulate new initiatives inspired by the certainty that good will triumph over evil, and that in the very same terrain which has been devastated by drug addiction and alcoholism, hope may once again flourish, and along with hope, the joyous celebration of life.

FIORENZO CARDINAL ANGELINI
President of the Pontifical Council
for Pastoral Assistance
to Health Care Workers



OPENING ADDRESS BY ALFONSO CARDINAL LOPEZ TRUJILLO

For a Human Ecology

I am greatly honored by the fact that the generosity of His Eminence Fiorenzo Cardinal Angelini has kindly offered me the opportunity to give the Opening Address for the Sixth International Conference, with a topic of such great importance and current interest as is "Drugs and Alcohol against Life," and with such an inspiring slogan as "Hoping against Hope," which is indeed a call for hope in a world which so badly needs it, and even more so as regards the painful subject which we propose to deal with at this time.

The question proposed, as we see in the program, will be the object of authoritative considerations by well-known specialists and prestigious personalities, with vast experience behind them. Allow me to situate myself in an ethico-pastoral perspective on this question we are confronting with concern, sensitivity, and love. The Church, we must say, is a global specialist on this subject. Her pastoral gaze is necessarily broad, in fidelity to the truth concerning man, whose secret may be descovered only through the truth of God. We are all at the same time heirs and beneficiaries of a Church experience whose depth corresponds to the forcefulness and quality of the love involved. The one who knows another best —I think the idea is Max Scheler's— is the one who loves him most. No one is able to know a baby better than his or her mother, at least under normal circumstances. The Church progressively takes in the experience of service to those who are victims of drugs and alcoholism, like a mother accompanying them in suffering and hope. This experience grows in the measure in which her children, in the most varied services and positions, form the vanguard in defending the dignity of life, by virtue of the same faith in Him who is Lord of Life.

I am particularly referring to the victims of drugs, especially to the young, although we well know that this scourge strikes all ages. Consumption is, in fact, increasing among adults, and there are no barriers to its use by adolescents and even children. In any event, my remarks in these summary observations are valid for alcoholism as well, *servatis servandis*.

We are faced with a new form of slavery which subjugates and oppresses the world. This servitude not only introduces desolation and pain into homes, but possesses the devastating characteristics of an earthquake shaking the very foundations of whole societies, nations, and regions. When greed, by recourse to easily acquired wealth takes possession of hearts, the doors are opened to violence, fear, and corruption. In a certain way, the first victims of the insatiable thirst for money, in the atmosphere of a culture of death, are the very protagonists of commerce in death. Places which were formerly loving oases of peace and cordial community life have seen their physiognomy altered, as if a plough had struck their souls and pulled up the roots of their culture. The distressing phenomenon is of course not limited to the countries where drugs are cultivated and produced and commercialized, but spreads like a hurricane to the nations into which it is introduced, after having imposed the tyrannical need for its consumption. It is an entire chain whose rings are inseparable. To seek money of such an obscure origin people are capable of anything, with no respect at all for others' lives and placing their own at risk. The seriousness of such a complex problem is closely linked to the consumption of drugs. Once people are subjugated by the tyrannical vice, everything else falls into the background when it comes to satisfying it.

The drug phenomenon strikes down every kind of victim day by day, as in a macabre dance. It makes an impression to see its devastating effects on the spirit even more than the evident physical degeneration of those falling into this tragedy. People reach the limits of despair. The Church wishes to accompany those who grapple with this problem on an itinerary of lib-

eration going from despair to hope (the expression comes from the Holy Father, John Paul II, in the audience granted to participants in a Meeting on the Family and Drug Addiction organized by the Pontifical Council for the Family). With responsibility shared by all the forces of the world community, it is necessary to encourage a strategy of prevention, and in this connection the Church, a "sign and ..safeguard of the transcendent character of the human person" (*GS*, 76), wishes to offer her increasing collaboration. This Conference is situated in such a perspective. The Church becomes a companion and guide on the road of this pilgrimage towards freedom, which must begin with freedom from many slaveries of today's world, enchanted by new idols before which it sacrifices its dignity and compromises its future. The Church, the Pope observes, becomes the guardian of this freedom, which is the condition and basis for the true dignity of the human person (*RH*, 13). Since it is question, then, of the profound meaning of freedom, with respect to the authentic realization of man's vocation, taking into account the truth about man, we must take seriously the indispensable demands of ethical values in action committed to a "human ecology." I have taken the highly evocative expression from the recent Encyclical *Centesimus Annus*. The Holy Father invites us to "*safeguard the moral conditions for an authentic 'human ecology'*. Not only has the earth been given by God to man, who must use it with respect for the original intention of goodness according to which it has been entrusted to him, but man is given to himself by God and must, therefore, respect the natural and moral structure with which he has been endowed" (*CA*, 38). I feel there is ample room for this teaching by the Successor of Peter in the subject we are concerned with. "Decisions, thanks to which a human environment is constituted, can create specific structures of sin, impeding the full realization of those who are oppressed by them in different ways" (*CA*, 38). As regards alcohol and drugs, are we not faced with real structures of sin? In order for the world to be able to breathe pure oxygen deeply, recourse to ethical mediation becomes indispensable. One author, quite debatable in other writings, notes, "For this reason such a programatic imperative is understandable: Ethics, which in modern times was increasingly considered to be a private affair, in postmodernity—for the good of man and the survival of humanity—must again become a *public exigency of primary importance*" And elsewhere he adds, "Postmodern humanity needs values, ends, ideals...." (H. Küng, *Project for a World Ethic*).

It is indispensable to react to the prolonged ethical eclipse of mankind, whose consequences we are paying for. Man cannot live without a meaning for existence. Societies cannot develop in an orderly, consistent fashion beyond the confines of ethical demands. All possible measures to remedy the misfortune would be devoid of foundations. We must repeat: *Quid leges sine moribus*. Without the foundation of morality, without upright behavior, laws can do nothing. Everything is left at the mercy of human subterfuges and shrewdness. And even more in this field, wherein silence and impunity are the object of so many maneuvers.

The humanity is virtually subjugated by structures of sin which make an attempt on man's dignity. The profound truth of man—the image of God, fruit of God's creative love—is forgotten. Man manifests the eminent dignity of a son. The drama begins when along a false road of liberation man seeks independence from God, from his will, from ethical principles. He wants to remove himself from his condition as a creature. He repudiates his sonship, absorbed by his whims. There is an ethical code written on the heart of man. It is at the root of genuine human community life. Natural reason, human wisdom, and the experience of men can discover certain norms without which communities would fall apart and disintegrate to the point of utter ruin. Christian faith, in a surer and deeper fashion, receives a vision from God and some basic ethical demands. This enables it to defeat the tragedy of man when he moves away from God.

Allow me to have recourse to the Parable of the Prodigal Son, who, to consolidate his independence, decided to abandon the Father's house. He received his inheritance, went far away, and squandered it.

Many today, in search of freedom, abandon the Father's house. Many drift away from God and squander the goods of their Lord. They think they can find the meaning of their lives and their self-realization and freedom far from God. Far from Him who is the Light, we are in darkness. Man cannot constitute himself as the center and measure of everything. The grandeur of man is flooded with light in nearness to Christ. Far from Him, the Light of the nations, conscience grows dull.

A process of secularization is advancing. This could include a healthy and valid affirmation of human rights and a legitimate autonomy of the temporal sphere. This process may, however, manifest a *secularistic* variant: man denies his creaturely condition and arrogates to himself a power and prerogatives which do not belong to him. In this sense he makes an attempt on his own truth. He wants to build his world upon a lie. Far from God, how can the foundations of

morality, of respect for others, and of community life be kept intact? God knows what is good for man. He has an original design for humanity. To forget this is to prepare one's own ruin. The moral decadence of so many societies is not, then, a simple coincidence. It is a logical consequence of having exiled God from society. Without the acceptance of God, with moral values rejected, man fools himself about not having to answer to anyone in a dimension which is eternal. Since human justice can easily be mocked, in a certain way everything is permitted.

The secularistic attitude separates us from the Father's house, which is the house of truth and dignity. Gabriel Marcel some time ago pointed out the distinction between being and having. Man remains imprisoned by his thirst to possess, having forgotten the exigency of being. He loses himself in the search for enjoyment and flees towards fictitious worlds uninhabited by truth or freedom or happiness. Man uncontrollably presses for society to be amoral, immoral, and permissive. Man himself is the author of the reigning social and personal disorder. The founts of human action are poisoned. In addition, an attempt is made on life in many ways. A path is followed (*peripatein* in Greek is to walk in an ethical sense, as St. John uses it) against life. The effects do not take long to appear. The culture of death then prevails, of which the drug phenomenon forms part under its varied aspects, in a violent struggle against the culture of life.

They abandon the house of the Father, seduced by the easy wealth of the powerful networks of the merchants of death. They even go so far as to impose themselves as models for a lifestyle. During a pastoral visit to a school, when I asked the children what they wanted to be when they grew up, one of them replied to me without turning a hair, "I want to be a member of the Mafia." And, to make the matter more concrete, he mentioned the name of his model. ... In such an environment it is not strange for there to be terrible conditioning of the young and for the doors to be opened to the horrible enterprise of the hired assassins. The protagonists of this new slavery do not come to understand the scope of the evil they cause. Some years ago I wrote an article, using the literary genre of a *letter to a Mafia member*. I paraded before his eyes the procession of his victims, ruined in body and broken in spirit. I nevertheless grasped how difficult it was to provoke sentiments of conversion when their lifestyle turns them, too, into victims: it turns their hearts into stone. In Greek sclerosis of the heart is spoken of. It is the term *sclerocardia*, 'heart of stone'—just the opposite of a human heart, of flesh. And, in spite of everything, the message of conversion is also addressed to them.

In growing numbers, vast sectors of the young abandon the Father's house, to a great extent victims of a society in an advanced state of ethical asphyxia, permissiveness, and consumerism, especially in the rich and opulent countries.

We here touch something we have been able to observe pastorally in many ways. Others, with greater authority and experience, can determine the validity of this insight. The phenomenon of drug addiction is in direct proportion to the measure of the inner void, the lack of ideals, and the interior desolation of young people who have not received from either society or their families the values needed to live in the truth. Drugs are an escape, an unreal world in which people think they can fill the void. Yes, there is an existential void which provokes flight, in these "trips" involving compensation, in search of a happiness which proves elusive.

The biblical parable shows us the state of prostration at which the son who squandered his inheritance arrived. The wretch remained completely at the mercy of his destiny. He was forced to become the pig herdsman. In Hebrew culture, this weighed upon him as a curse. He was hungry. He could not eat even the acorns of the herd he was looking after. He utterly lost his human dignity. An exegete comments, "The man who has drifted away from God finds no mercy before men. He could not have fallen any lower! ...Abandoned and scorned...he was a nonperson" (J. Ernst, *Vangelo secondo Luca*, Morcelliana, vol. 2, p. 646).

In the Encyclical *Dives in Misericordia* the Holy Father observes, "There is concealed the drama of lost dignity, the awareness of wasted sonship" (no. 13).

How impressive the destructive effects upon the slaves of drugs are. Their lives decay. They lose their freshness. Their minds are darkened and their wills are weakened to the point of impotence. They walk along the roads like human rags. There is no light in their eyes. Their hearts are shattered to pieces. By the bad use of their freedom as sons and daughters they have burdened themselves with the chains of slaves. Their responsibility must not be denied or hidden, for in the acknowledgement of their mistakes the way to their recovery is opened. It is necessary to be aware of the state of prostration. A. Gratry writes very well in pointing out the decisiveness of certain fundamental options. The first of these is the choice of God. This is to opt for freedom as well. For the true being of man: "One comes closer to God and is more; one drifts away from Him and *is less*. And this is the whole mystery of life: to go to God or to move away

from Him..... We are always walking towards God or towards nothingness..... It is true that there are atrocious moments for man in which, having descended in a certain sense to an inferior being —that is, brought low in his life— [and-] ...seeing himself diminish and sink....., he goes towards a lower being [and] begins to believe in nothingness..... " (A. Gratry, *El conocimiento de Dios*, Madrid, 1941, pp. 316-317). A bit—or a great deal—of this happens to those who have fallen into the abyss of drug addiction. They are victims of their own decision, but in large measure they are also victims of a soulless society which produces its models for life and generates its admirers in the image and likeness of its own deformation, when, on the contrary, man's vocation is to grow in the dignity of one who is the image and likeness of God, *to conform to the image of his Son* (*Rm* 8:29).

Man needs values to integrate his personality. Otherwise he sails as if he has lost his compass in the storm. He urgently needs to look on high so as not to lose his bearings and be able to reach port — that is, the realization of his vocation. It is indispensable to reconstruct the social fabric by helping so that the ethical values to fill such a vast spiritual void will be embodied in society and in youth. The bombardment of messages disseminating life " models " which cause confusion will otherwise continue. In attending to the demands of a genuine human ecology it will be possible to promote a service of preservation which will also contribute to the incorporation into society of those who are able to overcome the evils.

The family, sanctuary of life (*CA*, 39), must be the main source in transmitting moral values. Investigations of the drug phenomenon coincide in pointing to the relation between the family and drug addiction. When profound values are not inculcated into the children at home, the latter experience their emptiness with anxiety. This may proceed from either the disarticulation and disintegration of the family or its weakness, when the exercise of an authority which must be supported by example as well is lacking. The young, according to the phrase of a psychologist, must bear the heavy burden of an interminable adolescence, in a permanent state of immaturity of the personality.

The Prodigal Son, in his prostration, " recovered his senses " to make the decision to go back. It is a moment of lucidness which sets a whole process of conversion in motion. He reflected on what he had been in his father's house, on what he was at the time of maximum degradation, and on what he might have been. This comparison spurs him along the way to liberation. A German poet once said, " What we are sadly greets what we ought to be. " He becomes aware of his situation and recognizes his sin. He is prepared to confess it to his Father, who, on seeing him at a distance, runs to embrace him. This difficult rush for an elderly Father is the sign of his mercy, which forgives and reconciles. The Son who comes back home will be accepted not as a day laborer, but with the dignity of a son. He is received not as a slave, but as a free person. The Father gives orders to dress him in the finest suit, a symbol of his re-



deemed dignity. A ring is placed on his finger and sandals on his feet. We again find here a symbolic meaning. In this way he is recognized as a free man. The man, one writer remarks, must no longer walk barefoot, like a slave. It is also a symbol of his liberation, of his redeemed dignity. A celebration is held. It is the joy of conversion and the new encounter, comparable to a resurrection, for, in the Father's words, " This son of mine was dead and has come back to life; he was lost and has been found " (*Lk* 15:32).

In the Father's embrace the son found himself again.

"To recover one's senses." This is what one must do. It amounts to a sincere and lucid ethical examination Society cannot avoid it. Whoever is in the grip of the tentacles of the compulsive consumption of drugs and alcohol must do so.

For the return to freedom, given the importance of the task the drug addict is faced with, it is necessary to help him, accompany him with patience and hope, with an open heart, like that of the Father who embraced and covered with kisses his redeemed son. In the Encyclical *Dives in Misericordia* the Holy Father writes, "At the center of the conscience of the prodigal son there emerges a sense of lost dignity, of that dignity which flows from the son's relationship with the father" (*DM*, 5). In order for this sense of dignity to emerge, which is
also a sense of freedom, we must reinforce the institutions of hospitality and recovery, and also —it is useful to repeat—strengthen prevention programs. All of this is not possible except through timely decisions which are at once ethical and political.

The drug addict must be stimulated and lovingly accompanied by the family. I was impressed by this statement by some parents who had gone through the calvary of the prostration of their son: "We come here to get a new supply of affection. To fill up on affection"— that was their phrasing. They explained how they had realized their responsibility. There had been at least omissions in education. The family that is able to welcome and accompany is the field *par excellence* for both prevention and recovery and integration into society. For this reason institutions should work to create a climate of family, friendship, and affection. The family and society must fill up not only on affection, but also on moral sense in order to protect the family and prevent a catastrophe.

There is a problem in methods among institutions, and their variety must be respected, especially when they can display abundant fruits of recovery among those who have been placed under their care. It seems to me that at bottom there is a significant convergence in purposes: to fill voids with a therapy of love, trust, affection, and humanity. A feeling of security and hope must be reborn: not everything is lost. Some use the logotherapy of Victor Franck, who survived the inhumanity and cruelty of Nazi concentration camps because he had values in himself to cling to. It was the same proof he arrived at with others. Those who were literally desolate, for they had seen the longing to live vanish to the point of wishing for death, to put an end to so much pain. When it is possible, especially in countries with a Christian culture, and where the storm of secularism has not wreaked too much havoc, this process of embodying values must translate into the invitation to conversion proceeding from the Gospel. It is a question, then, of an explicit announcement of the *Logos*, the Incarnate Word, Jesus Christ, the Redeemer of man. In Him all values reach the dimension of perfection. He is not an abstract ideal, but concrete, close, and immediate, permitting a passage from despair to hope, from slavery to freedom.

Faith is at the origin of conversion for life. On visiting numerous institutions of the Church, I have seen so many faces to which a smile and the joy of living have returned. I have seen them in the process of resurrection, with the reconquest of a freedom which becomes prayer, song, and healthy, serene gladness. A new sense of life and of love for life has budded forth in them, for they have felt themselves to be reached anew by the forgiveness of God, who reconciles them, makes them worthy, and gives them the strength to fight. I have virtually touched the joy of the homes that have gone from the Via Crucis to celebration.

One doubt surely remains: if a spiritual ecology, in an option of profound social conversion, is not ensured—which must spur everyone, political leaders, educators, and, above all, the family, and the Church calls us to this, announcing the Gospel of Life opportunely and inopportunely— what will the future bring us? Won't society strike posterity as impotent to attend to the effects of this evil, in a phenomenon which is in large measure a symptom of social and family decomposition?

The Church announces to the four winds this message of hope, conversion, and freedom. The Church prays and works to change the hearts of stone of the merchants of death into hearts of flesh. One of the proofs of their conversion is not only to check this frenetic march towards destruction, but also to respect society and the law, so that impunity will not confirm them in their inhumanity. She announces to all the victims that the Lord of Life embraces them in hope.

ALFONSO CARDINAL LOPEZ TRUJILLO
President of the Pontifical Council for the Family

H.M. QUEEN SOFIA OF SPAIN

Drugs and Alcoholism: A Radical Restraint on Men's Freedom, Community Life, and Happiness

I wish to convey to all present my satisfaction over being invited to take part in this forum, organized by the Pontifical Council for Pastoral Assistance to Health Care Workers, which in a short time, since it was created by the Holy Father in 1985, has succeeded in making itself heard in every corner of the world, guided by Cardinal Fiorenzo Angelini.

My greeting also goes out to the health professionals, speakers, and other participants who have participated in this Sixth International Conference, whose contributions, of the greatest interest to all, I hope will help to blaze new trails in the fight against drugs and alcoholism, a real plague besieging us in the closing years of this century whose universal scope represents one of the greatest restrictions upon freedom ever known.

The problem of drugs and alcoholism is present in our daily life just as are other problems of evident seriousness, but in a more penetrating, continued fashion, and both exert a pathological influence upon the human person's unrenounceable tendency to seek happiness.

Drugs alter and debase those aspirations, suggestively offering a deceitful formula to free us from our problems — deceitful because to escape from the difficulties we encounter in life, they take life itself away from us. They are an inside-out myth. And they have selected young people on a priority basis, for it is among the young that the most fertile and permeable terrain is found for that seduction providing a paradise that swiftly arrives and effectively kidnaps them.

Alcoholism also attacks human freedom, conditioning our acts and behavior in functioning as a means of escape from everyday reality. The refuge for moments of incomprehension, failure, and loneliness, it renders us unsympathetic and violent, transferring an affective, emotional frustration which acts slowly and degeneratively into the family and social environment.

Drugs and alcohol damage the individual's biology and modify his behavior, and it is now, on the threshold of a new era, that the two appear as a radical restraint upon men's freedom, community life, and happiness.

The current crisis in ethical values, the persistence of numerous social injustices, the break-up of the family, and distorsions in community life, along with unemployment and uprootedness, are circumstances, among many others, determining these social phenomena, whose seriousness grows day by day, affecting the entire social fabric without any distinction in geographical, economic, political, or racial boundaries.

In the face of this reality, what is the task which



must be taken on by political leaders, teachers, educators, parents, and, in this specific instance, health care workers to break this noose around our society's neck?

In the first place, I think it is necessary to act by way of a global policy of prevention. Only by means of the integral education of children, the relaunching of adolescents' personal projects, attention to the social exigencies of integration, and improvement of the quality of life can a good part of the demand for drugs and its consequences be eliminated, without overlooking, of course, the complete, comprehensive, and personalized care needed by the people already affected.

Considerations similar to those set forth for drugs, with all due differentiation and specificity, must be applied to alcoholism.

In the second place, it seems undeniable that both prevention policy and the establishment of therapeutic responses for those affected, while remaining the responsibility of public authorities, can never be effectively developed without the indispensable support of the family and the solidary commitment of society as a whole

The acceptance of people who are addicted, so that the correction of their problem will not be confused with marginalization, discrimination, or disqualifying isolation; mutual support permitting and reinforcing the long process of rehabilitation; and generous, proper assistance to facilitate reintegration are exigencies which depend on us and which can be successfully carried out only when, far from selfishness, fear, or lack of solidarity, they are undertaken with the social awareness of providing help to our least favored brothers and sisters.

May the general title of this Conference, " Hoping Against Hope, " be like a light guiding a ship in a storm, so that, with the daily effort of all, the people undergoing the anguishing problem of drugs and alcoholism can recover their freedom and dignity.

H.M. QUEEN SOFIA OF SPAIN



JAIME PAZ ZAMORA

The Fight against Drugs: The Responsibility of All

We have been called here by His Holiness John Paul II through the Pontifical Council for Pastoral Assistance to Health Care Workers.

The nature of this meeting renders my presence a real pilgrimage, with its content of renewal and testimony, which, because of the characteristics of my mandate involve representation of a whole people of deep Christian roots.

Renewal and testimony which grow in the fruitful teaching of Jesus of Galilee, who loved to repeat that " only the truth will make us free. "

Drugs have become one of the great scourges of the contemporary world. Someone said at this Conference that it is a question of a terrible weapon. It presents itself in our time as one of the horsemen of the Apocalypse of whom St. John the Apostle speaks.

It involves an evil produced by ourselves. To look it in the face means, in a certain sense, to recognize therein one of the characteristics of modern society, as if its image were reflected in a mirror.

My first proposal is thus to ask of this Conference an act of humble acknowledgement which is inescapable to be able to deal with this subject. I would ask if we really intend to declare the end of something which we ourselves have created and, if so, to take on the full responsibility we all share in the fight against drug production, traffic, and consumption.

In this spirit of truth, allow me to begin by expressing my opinion on the meaning of this meeting.

I have been told that these three days have seen a wealth of reflection and both conceptual and practical contributions. From our standpoint, however, they contain a limit. And this is that reference has been made almost exclusively to the aspects linked to the consumption of drugs and its consequences. We have been restricted, then, almost exclusively, to the problems concerning the rich, industrialized countries as a result of the consumption of drugs.

Consequently, the aspects related to production of the raw material and to prohibition of illicit traffic have received less attention than they sometimes deserve.

In this line of reasoning we run the risk of carrying out a partial analysis and proposing incomplete indications for future action.

I am not saying anything new on affirming that dealing with the drug problem is a joint responsibility. We should, then, rejoice at the initiative of calling this Conference and the universal nature of the representatives in attendance. A universality, moreover, which must not silence at all the aspect of the problem peculiar to each country.

From a Bolivian standpoint, we have pointed out to the international community the need to distinguish three dimensions to the problem:

* the production of raw materials, such as the coca leaf, which is a *campesino* production activity, can be eliminated only by implementing a program of alternate development;

* cocaine production and traffic, which must be combatted with prohibition by enforcing the full weight of the law;

* consumption, for which we regard prevention as indispensable, in the most varied and creative forms.

In the Americas, the dominant concern of some consumer countries has been the repression of traffic. The idea of concentrating efforts on reducing consumption thus emerges here, at this Conference, in Europe.

While both conceptions are basically correct, in our judgment they lack the primordial element—that is, the introduction of alternate development.

Allow me to explain what we understand to be alternate development.

We have defined it as the set of activities in the production sector whose purpose is to exchange the economy based on a surplus production of coca for another—modern, dynamic, and competitive—which will offer the peasant, within a suitable timespan, the chance for legitimate, dignified employment, with a minimum of continuity and security.

It seems relevant, for the purposes of this Conference, to distinguish clearly between the coca leaf and cocaine. The cultivation of the coca leaf is a millenary tradition in the South American Andes, deeply integrated into social life and the perfect balance between man and nature.

The magical and religious meaning of this cultivation is closely bound up with the cultural identity of our people. The coca leaf has been the source of links with the supernatural and destiny. It has been and still is used for its dietetic value, in ensuring necessary

strength in the extremely difficult environment at a height of 4,000 meters above sea level, where our original Andean cultures developed

In reality, the social, environmental, and criminal problems linked to the drug traffic appear at the same time as the enormous increase in demand for cocaine in the industrialized countries.

Well then, the production of cocaine would be impossible without the chemical components, the so-called " precursors " manufactured and exported by the developed countries, trade in which is not controlled with the same severity which is applied to trade in the coca leaf. Let us consider, moreover, that the value of these chemical products is entirely marginal for the economies of the industrialized nations, when compared to the impact which, unfortunately, the production of the coca leaf has had on Peru, Bolivia, and Ecuador.

From this premise there follow some important specifications:

* The coca leaf is ours; cocaine comes from outside.

* We must distinguish between the cultivation of the coca leaf for traditional consumption and the cultivation of surplus coca leaves which are used to satisfy the illegal demand directed towards the preparation of cocaine.

The expansion of the narcotics market from the late 1960's to the early 1980's coincided in my country with the process of transition to democracy and the world economic crisis which produced the fall in raw material prices.

It was in that period when thousands of unemployed miners, farmers, and city-dwellers moved to the areas where the coca leaf is produced to find a source of income and work there. In this way, through the combination of external and internal crises, they have been caught up in the circuit of this great evil at the close of the century.

The inner reality of Bolivia has radically changed. Today we have a stable economy and a clear process of growth. My people lives in a climate of social tranquillity and work which is enviable in the region, and the democratic system is gradually being consolidated.

In addition to this, however, an enormous effort has been made to combat the drug traffic, as I shall explain briefly. In recent years we have freed over 14,000 hectares from coca leaf cultivation, which represent about a third of the total surplus cultivation, estimated to be 50,000 hectares.

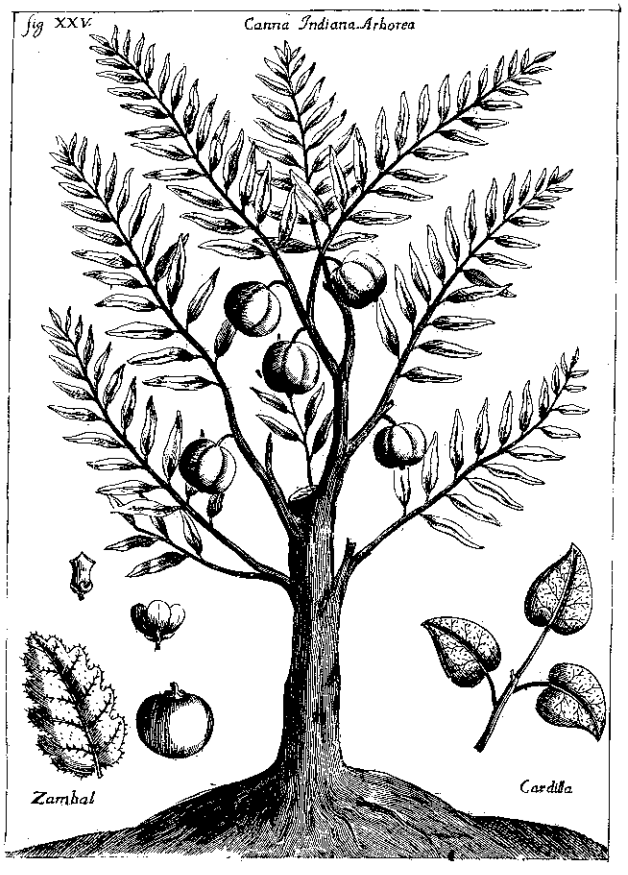
I ask myself what the economic and social consequences would be for a country—such as Italy, for instance—if the traditional concept of wine consumption were restricted to ritual and nutritional applications and a decision were made to prohibit quality production as a surplus

Even if we take into account the necessary variations and differences, the example can serve to evaluate the meaning of the contribution which Bolivia, with its program to suppress coca leaf cultivation, is making to the world fight against drugs.

We have done even more. Virtually all the recognized heads of the drug-trafficking organizations in my country are behind bars in Bolivian or foreign jails, and their networks have been dismantled, thanks to the so-called Repentance Decree, through which the application of the sanctions established by law within the territory of the country is guaranteed for the delinquents who give themselves up.

The conspicuous increase in production and exports—a consequence, moreover, of the restructuring being carried out—has diminished the importance of the cocarelated economy within the Bolivian economy as a whole.

And we have obtained all this without violence,



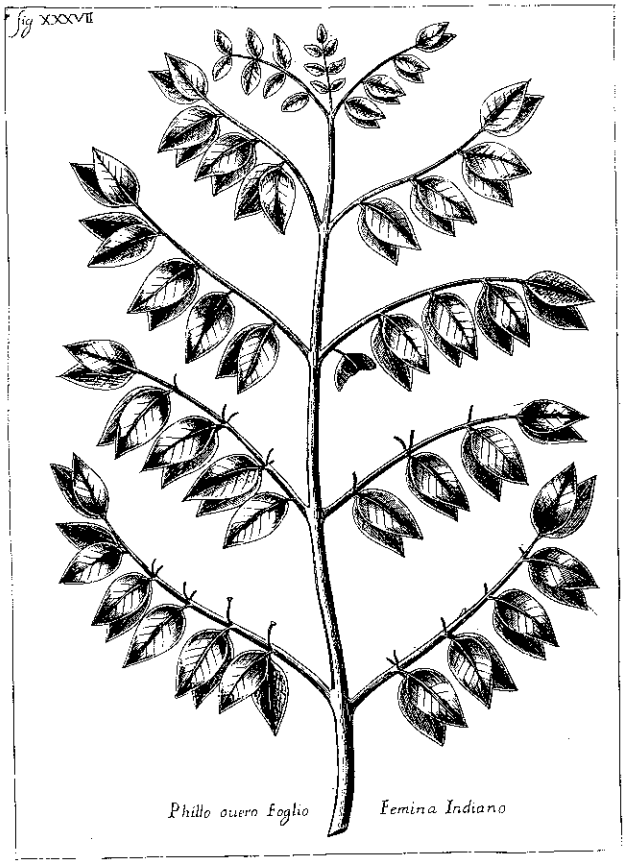
safeguarding social peace and public order, guaranteeing human rights and ensuring the dignity of the *campesinos* who sow the coca leaf.

This gigantic national effort at economic and political reorganization, carried out with enormous sacrifice, is certainly not sufficient to block the tentacles of drug traffic in my country.

Fortunately, the international community is abandoning its traditional passive attitude in order to take on concrete, increasingly active commitments which reduce the possibility that drug traffickers will find " sanctuaries " for protection.

The Vienna Convention of December 1988 marked a decisive moment in the unification of strategies and means to combat drug traffic. The Cartagena Summit Meeting, in which the Presidents of Colombia, Bolivia, Peru, and the United States took part, also represented a significant step in the same direction. The second summit meeting, to take place in the United States in February 1992, with the inclusion of Mexico and the invitation of President Bush, will certainly lead to a greater understanding which will improve the results of our collective action.

As far as I am concerned, I intend to propose at the second meeting the holding of Cartagena III, this time with the additional participation of the European heads of government.



Previously, at the 1990 meeting of the seven most industrialized countries in Houston, the strategy of alternate development as a common need was adopted. And the initiative for the Americas by President George Bush has selected this strategy as part of a continent-wide effort to give a push to our economies.

On the other hand, we must acknowledge that although severe controls on drug traffic have been established, the world alcohol market has few rules. International trade in alcohol is not only prosperous, but in continuous expansion.

This difference in approach of course weakens efforts in the fight against drugs. In general terms, we are not far from the truth on observing that the inhabitants of the rich countries control world trade in the alcoholic drinks consumed by the poor countries and at the same time consume the drug production brought from the developing countries.

I would like to summarize my reflections in ten points.

1. The coca leaf is the cultural patrimony of the Andean countries. Cocaine comes from outside.

2. Cocaine is the sum of the coca leaf and chemical components. The coca leaf by itself is inoffensive and has been shown to be so by a millenary experience.

3. Alternate development in the countries producing raw materials, such as Bolivia, must be the backbone of the strategy to combat drug traffic.

4. Drug traffic is a planet-wide calamity requiring the systematic application of a world anti-drug strategy worked out on the basis of principles for integral prevention and joint responsibility and also a contribution by all countries in keeping with their possibilities, implemented in accordance with their peculiarities.

5. There must be control of international trade in the formulas and chemical components, known as "precursors," with the same rigor applied to control of the commercialization of surplus coca leaves.

6. The aforementioned world strategy must have at its disposal mechanisms capable of carrying out —with equal criteria and precision—the steps forward and the results of joint action to reduce consumption, control drug traffic, and effect alternate development, to ensure equitable and harmonious application of the program.

7. The international plan for the fight against drugs must show equal sensitivity to the problems of poverty and the mar
ginalization of [SL]campesinos[SL] and the human and moral drama undergone by the people who consume drugs.

8. The world strategy to fight against narcotics must devote its best efforts so that the supply of raw materials will decrease and consumption will be reduced—the former through alternate development and the latter through education and prevention.

This strategy for peace, concentrating on the two extremes of the drug traffic chain, must result in a drop in the intermediate phase of production and traffic.

9. Prohibition, in the rigorous domain of the law, comes immediately afterwards, as an important aspect in international strategy and must be systematically enforced against cocaine producers and traffickers.

10. More operative formulas must be found to regulate the production, commercialization and consumption of alcohol, without compromising the logic of the functioning of the free market.

I have taken the liberty of submitting for your consideration, in the necessarily limited time allotted for my talk, the main elements of a strategy unhesitatingly embracing education, development, and employment.

At this point, I would like to add a reflection. This program to combat drug traffic would be worth very little if our societies did not recover the moral and ethical sentiment implicit in religious faith from the depths of their consciences.

Only the recovery of these values, as norms for social life, economy, and culture, will give our plans clarity and meaning.

And only in this way will we have received the deeply humane and humanitarian Message which the Holy Father has addressed to us on convening this extraordinary and solemn Conference and requesting the testimony of our commitment in favor of life and against alcoholism and drugs.

JAIME PAZ ZAMORA
President of the Republic of Bolivia



GIULIO ANDREOTTI

Joint Effort by Governments to Eradicate Drugs

We are all very grateful to the Pontifical Council for Pastoral Assistance to Health Care Workers and, in particular, to Cardinal Angelini, for having once again provided us through this International Conference with the opportunity to analyse and develop more thoroughly one of the most current, serious, and urgent issues of society today

Indeed, the ever increasing spread of drugs knows no geographical or ideological barrier. We are now witnessing a global phenomenon for whose solution there exists neither vaccine nor miraculous treatment. It must be fought by means of convinced and concrete cooperation among all States, and through an extensive and detailed program, applying a strategy that, taking into account the many lessons of the past, promotes immediate and effective interventions capable of reaching each and every school, workplace, and family.

The statistical data gathered by the United Nations indicate that world drug consumers amount to more than 40 million persons; that last year more than 800 tons of cocaine and 350 tons of heroin were produced; that, in Europe alone, the number of drug addicts affected by AIDS has tripled.

These are dramatic figures: the proof that a real war—the only worldwide war— is taking place and causing thousands of casualties. They are the victims of the indifference and egoism of all those who —in words— loose no opportunity for expressing their solidarity and empathy, but—in their deeds—pursue economic interests to ensure a fortune to the few, and ongoing suffering to the many

And it is mostly the younger generation that is condemned to experience this real tragedy and these extremely severe epidemics. We are used to saying that the only way to foretell the future is to forge it. Today, more than ever before, government leaders must feel bound to this special commitment, which must be readily turned into action. It must be unitary action that involves the acknowledgement and acceptance of those fundamental values to which today we urgently need to assign new meaning. Like our great political leaders of the postwar period, we must reaffirm the primacy of ethics over economics; the primacy of universal morals, which call upon governments to realize a new humanism, based on the absolute respect for life and human dignity. The Social Encyclicals of Pope John Paul II and the pastoral programs of the Bishops' Conferences of all countries have launched a clear message to world political leaders: man must be the reference point for all systems of social, economic, spiritual, and religious values.

In the Encyclical *Sollicitudo Rei Socialis*, John Paul II reminds us that: " Phenomena of evasion like drug abuse—which are typical of contemporary times—show us that Good, which we are all asked to pursue, and happiness, to which we all aspire, can only be achieved through the active involvement of all, no one excluded, and by renouncing our egoism. "

Hence, concerted action by all States; which means—first of all—to allocate human, financial, and technical resources to counter this insult to the development of mankind.

In the face of a danger such as drugs, governments should not close doors, build fences, or *cordons sanitaires*—which run counter to history—as one is tempted to do at times vis-à-vis other realities of our age, for example, immigration.

Social problems cannot be blocked by artificial barriers.

The duty of all government leaders is to provide a positive stimulus for cooperation with all parties, both in the field of research and in setting up the most effective tools to prevent or halt the spread of these phenomena, in full respect for the rights of individuals, and by deploying all efforts to single out economic and social solutions that may be acceptable to all.

I recall that one day the former President of Hungary, Kadar, told me: " I am glad that our currency is not convertible because narcotraffickers remain at bay. They cannot be interested in pocketing money that has no use to them. "

In this instance we are aware—and I say it with deep regret—that in helping Eastern countries to achieve a new social and political order we concurrently open the door to the spreading of a phenomenon still barely known there, with the devastating consequences it causes in a society as of yet ill-prepared for addressing and repressing it. Therefore, we must ask ourselves whether some aspects of our activities which we have looked upon as positive might not be harmful for future generations.

But it would really be woeful if people were to exploit difficult situations, perhaps through a carefully studied manipulation of statistical data, to advocate

the free circulation of drugs under the disguise of hypothetical forms of legislation. Indeed, the problem cannot be solved by lowering the threshold of our moral and social commitment. An affluent society that were to defend itself in order not to be " bothered " by drug addicts would soon see an increase in the degree of conflict between generations and the heightening of resentment among classes of society unequally blessed by history and by nature.

Perhaps in no other field like the fight against drugs have so many subsequent commitments and political statements been adopted, agreements for the control of narco-trafficking been initialled, international conventions and bilateral agreements been respectively ratified and concluded.

Italy itself—one of the first countries to understand the seriousness of the problem and the urgency for international accords— ratified all the UN conventions dealing with this issue, is a convinced protagonist of every EEC initiative, has signed bilateral agreements on the prevention of drug trafficking with more than twenty nations, while always acknowledging the irreplaceable role of the United Nations and proving it in deeds by allocating—as of 1985—a financial contribution for over 178 million US dollars, 33 of which in 1991 alone. Our country is legitimately proud of the choice made by the Secretary General, who entrusted the delicate task of guiding the various bodies upon which rested the operative responsibility of this sector to two of the most capable and respected Italian officials.

But more must be done; we must immediately adopt concrete initiatives leading to a large-scale endeavour transcending the " vexata questio " between drug producing and drug consuming countries, bearing in mind the global dimension of North-South relations and the multi-faceted hues of this problem.

Therefore, the problem of the debt of developing countries must be solved according to the guidelines set forth in the Report prepared by the Secretary of the Italian Socialist Party, the Hon. Bettino Craxi, upon the mandate of the UN Secretary General.

In fact, we cannot expect from Latin American countries a blanket commitment to eradicate all coca plantations, if their GDP has decreased by 7% as compared to 1980, and if in the last six years capital flight has amounted to over 200 million US dollars, and their debt has reached the incredible and unsustainable figure of 1,250 billion dollars.

I have personally witnessed how effective the policy is of replacing the illicit crops, as part of integrated development programs aimed at creating alternative sources of income for the farmers concerned. What is needed, however, is a true involvement and a sense of responsibility on the part of local communities, who should not only benefit from their agricultural, economic, and social development, but should also be active agents therein.

The President of Peru, Alberto Fujimori, described to me his corageous program to fight against drug trafficking, no longer based only on repression, but also on an integrated strategy capable of stimulating cooperation with those two hundred thousand farmers called *cocaleros* who in two specific regions cultivate 70% of the world coca leaf output with a per capita yearly income of no more than 700 US dollars. With the support of the new agency created by the United Nations and of President Bush, Fujimori concluded a proper agreement with the *cocaleros*, which envisages the possibility of land ownership, new credits, modern agricultural technology, and the establishment of a new market economy that facilitates access to domestic and, above all, international markets for the new substitute commodities.

It is quite clear that neither Peru nor Bolivia —also pursuing the same policy—nor the other nations where 90% of cocaine and heroin are produced can sustain such a policy without that support from the international community which would allow for the cancellation—or at least the drastic reduction—of their debt, and the conclusion of a trade agreement favouring the purchase of substitute commodities according to new and quite feasible mechanisms

Indeed, this imposes on rich countries a heavy sacrifice. But, in the face of a danger threatening the entire world, I believe it is a price we should all be ready to pay, in the name of that solidarity all too often procaimed in words alone, being aware that the further growth of advanced countries is objectively hindered by the lack of economic and social well-being in the other countries.

The positive outcome would be overwhelming. For example, I think of the deadly blow which would be inflicted upon the narcopollution, now literally killing the ecosystem of the entire Amazonian region, poisoning air and water, and destroying its faunistic patrimony. The indiscriminate deforestation has destroyed 650 thousand hectares of Amazonian forest. In Colombia alone, to refine 125,000 tons of coca leaves involved the use of close to 6 million chilos of sulphuric acid, 29 million litres of gasoline and kerosene, 7 million chilos of lime, and 2 million litres of acetone.

However, the possibility of crushing the traffic in cocaine—now within reach, thanks to the commitment of the young Latin American democracies—should not induce anyone to lower their guard in the campaign against heroin. Though it is true that the WHO rightly considers cocaine as the most dangerous drug, it is equally true that heroin continues to exact a very high death toll in all countries of the world. This is why I wonder whether it might not be the right time for a joint analysis of the issue by competent Ministers, similar to the one conducted at London in 1990 on the threat posed by cocaine.

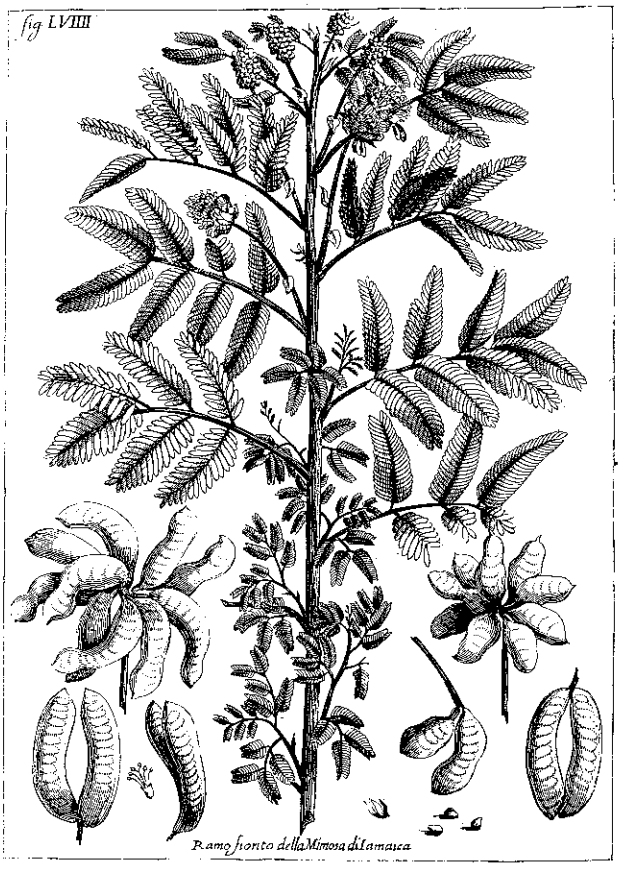
In fact, there is no doubt that heroin benefits particularly from the difficult political conditions of many producing countries, some of which are lacerated by such ethnic, cultural, and religious conflicts as to strongly impair the intervention capabilities by central governments.

In this context, allow me to pay homage to Mrs. Aung San Suu Kyi, who has been awarded this year's Nobel Prize for Peace and symbolizes the hope for the renewal of a people deserving to live a life more consonant with its great and centuries-old culture. A people certainly willing to cooperate—once it achieves democracy—in freeing its country from be-

ing the sad record-holder in the world production of opium.

These ideas are no Utopia; they are a strategy based on data and concrete experiences. One might even conclude that these initiatives may eventually involve costs lower than those shouldered today by Western countries in coping with their domestic situation. Furthermore, this renewed financial and trade effort could well be coupled with a control and verification system managed by the United Nations, including agreement on specific sanctions for those countries which violate the commitment not to cultivate the eradicated commodities.

The issue of reducing the demand for drugs also



continues to be tackled without that common contribution of ideas and experiences which every country can offer the international community. I believe the time has come to formulate global strategies, with particular respect to information, prevention, treatment, and sociopsychological assistance, as well as the monitoring of action program implementation by each specific country, through real coordination of government initiatives and assessment of results achieved.

This, indeed, is a very broad spectrum of activities which requires—first of all—an up-skilling of personnel, as the present curricula do not appear to provide the best answers for future needs. In order to promote the rehabilitation of drug-addicts it seems essential to me to enhance volunteer schemes— thus transforming worthy and sponaneous initiatives into structured services available to the community, capable of integrating and adapting to the rapid changes of reality. Current therapeutic communities, still largely insufficient everywhere in the world, continue to select and host the very few patients who can adapt to the proposed treatment model, leaving out others who, no less in need of assistance and solidarity and being unable to find it, keep the supply and demand circuit going.

If we consider the importance of correct information and appropriate health education—both physical and psychological—we once more realize that serious prevention measures require the constant and convinced contribution of everybody. Thus, and foremost, prevention, which must be true and concrete. Too often this term is used—and abused—to label deeply diverse intervention models, prompted by the need " to do something and do it anyway, " but without a true prevention approach and according to a still undefined scientific approach.

Indeed, in no other sector have we witnessed such a gap between theory and practice. No doubt, there is a general consensus that in order to prevent one must act within the social context where situations of malaise and social isolation arise and proliferate. But what interventions, and how to implement them? Surely not extraordinary or extemporaneous acts, in contrast with the need for effective changes, but most assuredly interventions which do impact the normal and everyday mechanisms of life. In this framework, the recovery of traditional values, such as family, must certainly not be interpreted as a return to obsolete patterns. In our life, too, as in our way of being, there are some absolute values that—as such— know no limits in time or in space.

Before concluding, allow me to recall that, together with the need to recover the values of our civilization and to increase the commitment of public leaders, we feel the need for the help of the scientists here with us today. Since in this field also and above all, as in others, scientific cooperation must be supported and developed. The quest for a better world and for instruments that increase far more than the material well-being of mankind alone—this is the ultimate goal of science. And it must be pursued without jealousy or egoism, in a spirit of true openness which excludes secrecy. The most heartening and noble example of this commitment is provided to us by our Nobel Laureate, Professor Rita Levi Montalcini, who has long maintained and demonstrated that prevention must rest on precise scientific grounds.

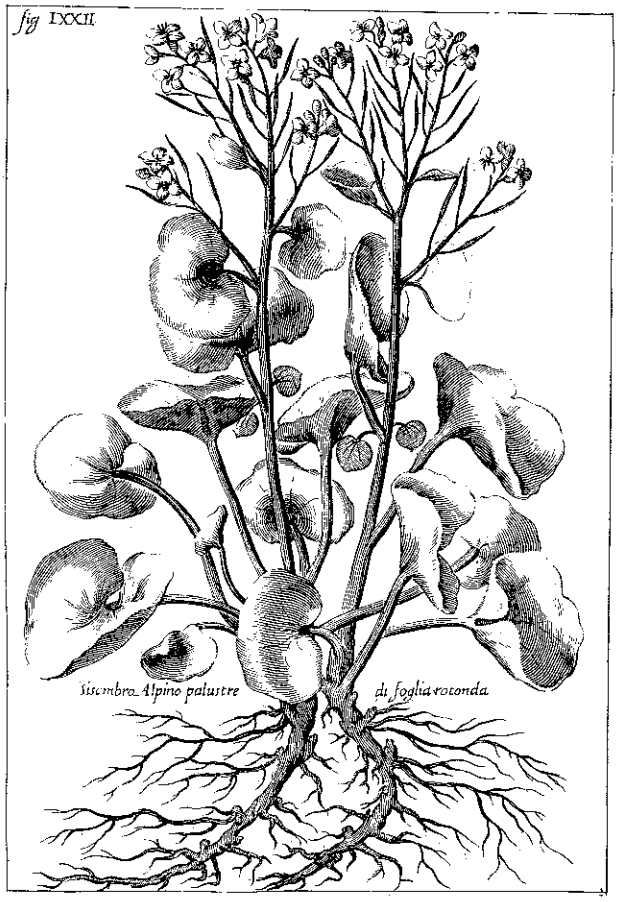
I recall the accurate and touching illustration of the damage all drugs cause to human health that she made at an international meeting convened in Rome on the problems of cocaine. I believe it is essential that these extremely serious consequences be made known in objective and comprehensible terms. As Rita Levi Montalcini acutely sustains, if these notions are introduced during the formative years of a human

being, at an age when children are still receptive and not conditioned by deviating influences, they are certainly more effective than preaching and numerous acts of hypocrisy committed in the name of this noble struggle.

Hence, cooperation and partnership, embracing the entire issue and with no reservations. Solidarity, understood as resolute and spontaneous participation in an enterprise reaching far beyond international agreements, joint participation in social initiatives, and the boundaries of science. This enterprise can succeed only if we become aware that what is at stake is not only the victory of Good over Evil—in the physical meaning of the term—but the victory of man as a thinking being, a man whose dignity must be restored along with his awareness of those values underlying his condition as a social being. And I would like to conclude by quoting the words of President Bush who, at the end of his call to the nation, used his characteristic concrete approach in launching his proposal for a national strategy in the fight against drugs: " It will take time and hard work to succeed, but we must win: too many young lives are at stake. If we fight this war as a divided nation, we shall loose it. But if we tackle this plague together, drugs will turn into a handful of useless chemical substances. "

I believe that this is the same appeal we can address to all mankind for our good, and for the good of the generations to come.

Hon GIULIO ANDREOTTI
President of the Italian Council of Ministers



JAVIER PEREZ DE CUELLAR

United Nations Efforts to Combat Drug Abuse

It is superfluous to stress that the object of our considerations and exchanges on this occasion is vitally important for the future of humanity. As UN Secretary General and a citizen of one of the countries most affected by the problems linked to drugs, you can well understand that I am doubly sensitive to such problems.

We are all familiar with the deep faith and the spiritual and moral fervor by which His Holiness the Pope is able to inspire efforts to combat this worldwide scourges commitment that brings together all Churches in a single thrust.

Over the last twenty years the world has seen a dramatic expansion of the production, traffic, and illegal abuse of drugs.

Practically no nation, social group, or age bracket has been spared. Some estimates refer to 40 million consumers of illegal drugs in the world. Unfortunately, I am afraid that reality is far worse.

A number of theories have tried to explain such a disquieting phenomenon and to discover its causes. One of these schools has thus stressed the weakness of individuals and the influence of their environment.

Another current of thought instead insists on the role played by supply, the role of the market, into which a great many illegal substances are poured.

Without calling into question the scientific soundness of these theories, it is, however, necessary to acknowledge that it has not been possible so far to identify in a systematic and incontrovertible way all the parameters of the phenomenon. In no case, however, should theoretical hesitation about causes prevent us from taking firm action in this field action which must aim at controlling supply and demand at the same time.

To control demand, we obviously need to deal with the desire for consumption. Such an approach is necessary, urgent, and primordial, but extremely difficult, for it runs up against the human being's complexity. In this field, I am convinced that our efforts must aim simultaneously and consistently at both long-term and short-term objectives.

Our long-range strategy could draw its inspiration from the noblest principles of the human heritage, principles which lead us to ask about certain values of our modern societies, such as the idea of unlimited economic growth, blind consumption, the obsession with wealth, or the attitude seeking to measure everything in terms of immediate utility. But it is not enough to criticize the demons of our time: as Hermann Hesse wrote, " Instead of idols, a faith is needed. "

Such an ideal may still seem remote, but some encouraging signs show that it is not out of reach. There are many people. I am thinking especially of the young those sensitivity to the problems of the human community as a whole is progressively increasing and asserting itself. Many of them are actively engaged in works of solidarity which demonstrate an exemplary respect for human dignity, for life in general actions which do not appear on the front pages of newspapers, but which offer some solid reasons for hope. But, as I said, there is still a long way to go.

I believe there is need for a redefinition of our value systems and the development of a way of living which situates moral notions such as justice and human dignity in their proper place.

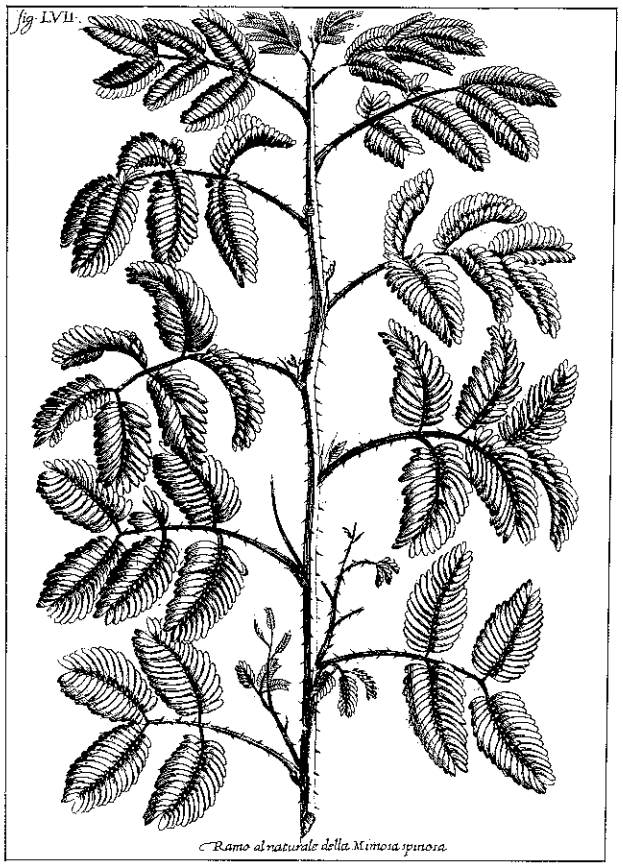
Such concerns should not, however, lead us to forget that from this time on we must face an urgent social situation in this field, a crisis situation with a seriousness never before experienced.

Drug abuse has also resulted in a considerable accumulation of " dirty money " and the use of banking and financial institutions for the purposes of laundering, penetration into the business world by the " drug lords, " and a corruption threatening the effectiveness and credibility of institutional structures.

The symbiosis linking drugs and organized crime is clear today. Criminals have taken over this market, exploiting addicts and farmers at the same time. They have created a network of illicit business. It is precisely against this network that society must fight. This struggle is dramatic, for the modern form of organized crime openly threatens stable structures, which it attacks with ferocious violence and determination.

Another motive for growing concern is the harm done to the environment by the drug trade. Though the data to evaluate its scope is still lacking, it is clear that such damage contributes to deforestation, for example, especially in the Andean region of South America, as well as in Southeast Asia, two areas regarded as the world centers for the cocaine and heroin industry.

Among the varied characteristics of the drug problem, one of the most outstanding not foreseen by spe-



cialists as the fact that drug addiction in recent years has also spread to the populations of developing countries, affecting the young, above all. In such cases, the phenomenon takes on a terrifying appearance and represents a further obstacle on the road to development of the poor nations. If we wish to protect present and future generations, if we wish to relieve the suffering of so many persons and their families, we must take specific, effective, and swift measures. Our action must function in such a way that the suffering of the young will not necessarily lead to drug-taking. This fatal nexus must be broken

How?

It is evident that mere national action alone cannot deal with which amply ignores and transcends boundaries. A general, overall mobilization is needed, and it is acknowledged today that only a new, multilateral approach to the problem can offer a valid solution.

For forty years the United Nations has taken part in international efforts to control drug abuse. It has, first of all, provided guarantees for the process of introducing and distributing controlled substances for legitimate and therapeutic purposes and worked out the legal instruments by which governments undertake to combat drug abuse. UN action has not, however, limited itself to this.

Through assistance programs UN involvement has also extended to the operative aspects of all forms of control of drug abuse, including the publication of studies, the reduction of illicit supply, and preventing and reducing demand and illegal trafficking. Over the past five years the UN has multiplied initiatives aimed at increasing the international community's awareness of the seriousness of the phenomenon and its negative impact upon the vital forces of our society.

Among the leading events we should recall the International Conference on drug abuse and illegal trafficking held in 1987 and the adoption the following year of the United Nations Convention on illicit trade in narcotics and psychotropic substances.

In February 1990 the General Assembly devoted a special session to the drug problem and on that occasion adopted the program for world action. A few weeks later a world summit of ministers met in London under the auspices of the UK government in collaboration with the UN.

These last years have witnessed a coming to awareness of the need to reinforce the role of the UN in the field of the international control of drugs. This awareness has spurred me, at the request of the General Assembly, to establish a new program now known as The United Nations Drug Control Program. This Program, in addition to carrying out the previous UN functions in this area, received a new mandate which is at once ambitious and realistic and makes it a reference point for the channeling of international efforts against drugs.

The Executive Director of the Program was named on March 1, 1991. Unfortunately, he has not been able to take part in this Conference, as he is currently at work in the Andean region of South America to develop concrete action plans with the governments involved.

Though the Program was only recently created, the

conception, or, if you will, the spirit which is to orient its strategy, has already been indicated.

In addition to these functions contained in documents, its energizing role as a control and information center, and its technical assistance to countries requiring it, the Program takes on specific and decisive responsibility for coordinating all the efforts of the UN in drug control.

If necessary resources are made available and there is political will to act, the drug problem can be kept under control. It is clear that resources and financial contributions constitute the real acid test to measure nations' will to deal with the problem in serious fashion. Governments should finally realize that the money spent today will save them much larger sums in the future.

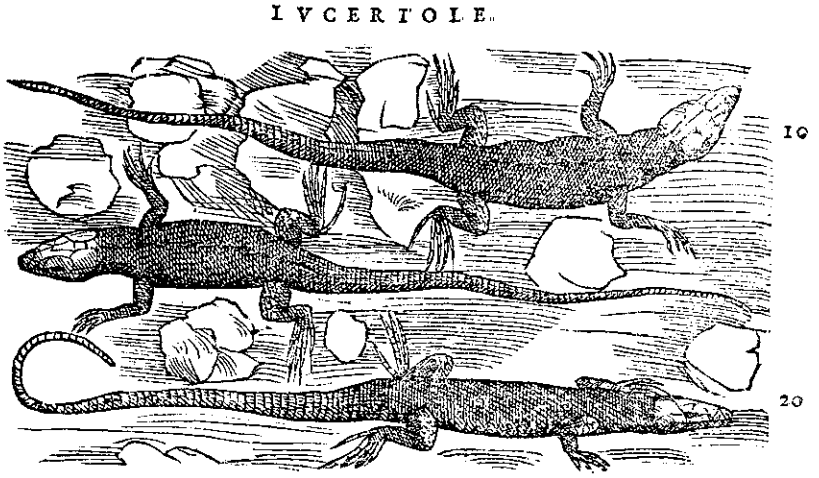
A coordinated effort is needed using all the human, intellectual, scientific, and financial resources required in the framework of an adequate strategy. But if we are to reach our final objective, which is to reverse our course and change cultural attitudes to drugs it will be necessary not only to establish and maintain close links on all levels of government and by way of all the UN systems, but also imperative for the community itself family members, teachers, religious leaders, the media, professional associations, and the private sector in general, including the business world to mobilize and contribute fully to the common effort.

If we really wish to make a difference, we must work simultaneously and in a balanced manner both on the streets of the industrialized countries and in the countryside of the developing nations.

We can already glimpse the hazy dawn of a new millennium: with what anguish, but also with what determination we are approaching this new threshold in human history! With the intention of valiantly doing our duty as men and passing on to the coming generations a heritage that has been wisely administered, carefully preserved, and superbly developed. The fatal and illusory temptations of drugs must be banished from such a heritage.

I am convinced that we will be able to reach this goal, but in order for that to happen the ideals which the United Nations Charter reflects must become the rule and not the exception in managing the world's affairs. I know I share this ardent aspiration with all of you, and it is this which comforts me in my hopes and my efforts.

JAVIER PEREZ DE CUELLAR
Secretary General of the United Nations



LOUIS W. SULLIVAN

Drug Control in the United States: Rediscovering the Culture of Character

I am delighted to be here today, and I bring you best wishes from President Bush. In fact, I'd like to begin by reading a message from the President to His Holiness, Pope John Paul II.

Let me briefly expand on what the President has shared with all of us in his message to the Pope. The United States has a major role to play in reducing the demand for drugs. As a consumer of illegal drugs, our nation is working vigorously to cut our use and eventually eliminate our drug market. Drug usage has hurt our own citizens and citizens outside our country. But with commitment and cooperation from family and neighbors in our own country, and in partnership with the governments of our friends and neighbors around the world, we hope that we can greatly reduce the demand for drugs. That is why my country enthusiastically supported the World Drug Summit in 1990 and gives our same support to this meeting today.

The demand for drugs in the United States and elsewhere fuels drug production and trafficking in this country and in others around the world. But illicit production and trafficking also fuel new demand

This is the reality of the cycle. Our National Drug Control Strategy in the United States has two components designed to break that cycle: reduction of demand and reduction of supply. Only by acting against both sides of the drug problem can we reduce drug use.

A major goal of the strategy is to increase citizen concern and involvement in both component efforts, which really are actions on the same continuum of effort—eliminating illegal drugs. With regard to the reduction of illicit drug demand, public opinion polls show the majority of our citizens see drug use as one of our most important domestic concerns. They know that they will not be safe from the users and dealers until the United States eliminates its demand for drugs. The demand reduction effort must be waged on two fronts: We must create a climate of responsibility to sustain public disapprobation of drugs and we must strengthen and reinforce the appropriate research, prevention, and treatment efforts to stop the use of drugs. Let me address both matters.

When it comes to rediscovering the culture of character, we need for our citizens to make choices which affirm an obligation to one's self and to one's community not to engage in dangerous conduct. We can not legislate such choices—they are taught in our cultures and become an integral part of us— they are our *a priori* set of values. That is not to say that the law has no role to protect society and the individual. We know that it very much does, and we have invested heavily in our supply programs in the United States which have proven their great value.

We have also put a great deal of effort into international law enforcement and interdiction. We are working with other countries to help them increase their ability to break up the trafficking organizations, to stop the flow of essential chemicals, to inhibit money laundering, and to discourage the growth of narcotics crops. We have served notice that drug use will no longer be tolerated, and those who use illegal drugs will be held accountable. We are trying to create true dis-incentives for drug use and distribution by ensuring that for those involved punishment is more certain.

But an ethicist, Patrick Devlin, once reminded us that "no man is worth much who regulates his conduct with the sole object of escaping punishment, and every worthy society sets for its members standards which are above those of the law."

What is frightening for me as a health official in America is how far our drug problem has taken us below those standards. You only need to look at the tortured faces of drug impacted babies in a neonatal ward to see that a resurrection of the human spirit is also needed as a part of our fight against drugs.

Such a resurrection is taking place for two reasons. In the 1960s and 70s America experienced a libertine apogee. Among other ramifications of this, drug use was almost glorified in the youth culture, and in much of the mass media. This helped foster a tolerance, an acceptability for drug abuse. So when the government disseminated an anti-drug message the government and the media were pitted against each other. But this tension—this contradiction—has been eliminated, and the media has joined forces with the government. In this media-saturated age, the media must be on our side and utilized to full advantage.

Now influential members of the entertainment, movie, and music industries are working to depict drug use as it really is—destructive, vile, and dangerous. Advertisers and the advertising industry have do-

nated their talents and hundreds of millions of dollars in free advertising to air anti-drug messages

Radio and television executives have created national and local anti-drug programs designed to reach poor and minority audiences with a drug awareness message, and with hope by providing information about treatment programs and other sources of assistance.

And parents, perhaps the most important advocacy group, are energized and working with the government. In fact, they catalyzed our government to do more.

The goal of our prevention program is to stop the increase in the number of users, and I see our success in our many children who have chosen not to use drugs In fact, the 1990 U.S High School Senior Survey found that 47.9 percent of high school seniors had used an illicit drug at least once in their lives. This was the *first time* the figure had gone under 50 percent since we have been doing the survey, and it is a part of the continuing decline since the early 80's, when up to 66 percent of seniors had tried an illicit drug at least once.

By striking down a culture of drugs and replacing it with a culture of character we are investing wisely in the future of our children and of our citizens to reduce the demand for drugs. But we must also have real and achievable demand reduction programs. It also means we must address populations with serious socioeconomic disadvantages and most at risk populations for drug abuse. These are our poor populations, our minority populations, and those who lack education. For these groups, the cumulative emotional impact of the drug culture has devastated entire communities.

Paramount in addressing this problem of reaching high risk groups is reaching substance abusing mothers—those who abuse not just illicit drugs, but alcohol and tobacco, as well. In my Department of Health and Human Services, we have over 40 direct and indirect programs to address the problem of substance abusing women and their children. We spent over $ 325 million last fiscal year on these programs, and we are planning to do even more this year

While broad social progress and prevention efforts are helping to reduce drug use, millions of individuals still need help to stop using drugs. Under the goals set out in our National Drug Control Strategy, federally sponsored treatment capacity in the United States has been expanded 40 percent from 1989 through 1991. Federal funding for treatment increased from $ 900 million in 1989 to $ 1.5 billion in 1991, and we have requested $ 1.65 billion for fiscal year 1992. Special federal assistance is also being channeled through Target Cities Projects, Critical Populations Grants, Criminal Justice Program Grants, Campus Treatment Demonstration Projects, and a new proposed Treatment Capacity Expansion Program.

But providing money alone is not enough. We are also working to expand our efforts to coordinate more effective and efficient use of treatment money. We want to match treatment needs with those facilities and programs best able to help the addict. We will strive to foster more cooperation between treatment facilities and social, health, and employment agencies so addicts can get the different services necessary to help put their lives back together.

Much remains to be done in treatment, research, and prevention and what I have outlined is really just a portion of the progress we have made in the United States. But all of it—the investment of time, energy, and resources—is a reflection of the cultural change that the U.S. is undergoing. It is a part of the restoration of the values—the culture of character—that will lead our nation out of this epidemic.

Today we have gathered because we understand our responsibility as a world community. We know that unless we work together, drugs will continue to terrorize our children, our communities, and our nations. We have reached agreement on this most fundamental point. Just as neighborhoods have begun to come together in America's cities to fight illicit drugs, so we must continue to come together as international neighbors, to battle drug production and use. Drug use will continue and proliferate unless we work together.

But we must also keep in mind that there is a larger battle that we are also fighting, and it is that battle which underlies our demand reduction program. For demand reduction is not simply a spectrum of interventions generated from research into prevention and treatment programs. While we all want to change our citizen's drug using behaviors, our goal is more than mere compliance with the law. We must do better than that. We must support and reinforce the values that family and faith nurture in us—we must, as President Bush put it, bring a better way of living to our world.

Hon LOUIS W. SULLIVAN, M.D.
Secretary of Health and Human Resources, U.S.A.

DICK THORNBURGH

The War on Drugs: Law Enforcement and Values

In a very real sense, my address to this Sixth International Conference is in the nature of a "report from the front lines" in the worldwide effort against drug trafficking and drug abuse.

During the last three years, as Attorney General of the United States, it was my responsibility to direct our country's law enforcement efforts against the international drug cartels. Moreover, as Chairman of President Bush's Domestic Policy Council, I oversaw the development of our National Drug Strategy to deal with what the President properly calls "the scourge" of drug abuse.

Mere words cannot express the impact of the drug scourge that threatens so many of our countries. Virtually anywhere around the globe, the disastrous consequences of the international traffic in drugs are all too readily apparent. Few international conspiracies have exacted such tremendous costs—not just in economic terms but, more important, in the incalculable harm to humankind. Many persons, especially in South America, have literally given their lives in the effort to see that others may live drug-free.

The truth is that the nature and complexity of the drug war requires that all nations face this crisis together. We suffer the devastation from drug use in common; we must fight with a cooperative strategy and concrete action. You are therefore to be commended for this conference to focus on "Drugs and Alcohol Against Life."

President Bush's comprehensive strategy to deal with the enormous drug problem in our country looks at the entire spectrum of drug control activities: not just law enforcement, but prevention, education, rehabilitation, and treatment. Above all, his strategy seeks to re-establish the traditional value structure within our country—a value structure that denies drug dependency as an acceptable lifestyle.

Toward that end, we believe in education to warn of the harm caused by drugs, accompanied by strong laws with stiff penalties that will act both as a deterrent and punishment. We also are committed to assisting those who seek to come back clean to a new life.

1. Let me first discuss briefly the law enforcement role. The American response is based upon a very simple realization: not one gram of heroin or cocaine is produced within the United States. It all comes from beyond our borders. Thus, our efforts to deal with the supply side of the drug problem can only be carried out as part of an effective international endeavor.

Although the international community is scoring an increasing number of successes in this war on drugs, our combined efforts still have not kept pace with the international drug cartels. Drug kingpins still ignore our laws, and in some countries, have so terrorized the legal system that law enforcement is severely hampered. That is why a modern legal framework for international cooperation in the fight against drug trafficking is so important.

Fortunately, such a framework is at hand. The adoption of the United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances by nearly 100 nations at a historic ceremony in Vienna in December 1988, marked a turning point in this effort. I was privileged to sign the U.N. Convention on behalf of the United States and to spearhead its ratification by our Senate so as to enable our country to become one of the first nations to implement its provisions.

This treaty is of particular importance because it is a law enforcement treaty. Signatory nations are obligated to criminalize each link in the chain of illicit drug-related activities, from the initial production of drugs to the final laundering of profits through far-ranging corrupt enterprises such as the Bank of Credit and Commerce International (BCCI), first successfully prosecuted in the United States. This Convention calls on all of its parties to pierce the veil of bank secrecy, as well as to establish effective measures to seize and forfeit drug proceeds sought to be concealed as legal deposits.

It also calls for placing controls on the flow of essential chemicals. And it mandates unprecedented cooperation in the conduct of investigations, prosecutions, and, where appropriate, extraditions. Yet, this Convention does not alter the laws of any country. It absolutely respects sovereignty.

This is a unique Convention because it actually undertakes to impose responsibilities on each of the ratifying nations to take specific steps to aid one another in an expanded law enforcement effort. It is, for example, incumbent upon all signatory nations to conform their own legislation to meet treaty require-

ments. Taking such action is critical to stopping drug trafficking and its associated crimes.

The ultimate test of the U.N. Drug Convention, of course, will be the expressions of political will in countries adopting the implementing legislation. Each signatory nation must undertake this initiative with a sense of urgency—particularly relating to money laundering, chemical diversion, and asset seizure and forfeiture, which hit the drug cartels where it most hurts.

The 43 nations that have ratified or acceded to this Convention already constitute a unique and powerful alliance. Rapid ratification and accession to this treaty by the remaining 51 signatories will send a clear message to drug traffickers that there is a collective, global commitment to exposing and ending their illegal activities and that there is, literally, no place for them to hide.

2. But that is only half the battle, at most. And the other half is the more challenging and the one for which each of us shares a responsibility. We, similarly, I suggest, have no place to hide.

The war against drugs, if such it be, is not going to be won only through tough law enforcement. It is going to be won, if at all, on the battlefield of values. It will not be won solely in the courtroom, but in the classroom, in the workplace, in our houses of worship, in our neighborhoods and, most important of all, in the family. These historic sources and transmitters of our values are the very institutions which can most effectively delineate the value of a drug-free lifestyle and distinguish it from the degradation, indeed often death, which is the inevitable by-product of drug dependency.

Values of self-worth and self reliance, values that reflect the determination of each of us to realize in full our God-given potential, values that embody a concern for our fellow man and woman—these are the true foundations upon which a drug-free lifestyle can be built.

These are thwarted, as noted in your introductory program materials, " by insufficient training, conditioning by illusory or inadequate imitative models, the crisis in the institution of the family, and disdain or lack of consideration of ideals whose attainment requires sacrifice and dedication. "

These obstacles can be erased by a commitment to the following important steps:

* First, by strengthening the family in every way possible, in recognition of the essential educational and socializing role played in all our lives by our home environment. Infants and children denied the attention of loving parents, neglected or abused, or left to latchkey loneliness, are launched into today's complex world without the guidance and stability necessary to, in many cases, literally survive.

* Second, by a commitment to providing comprehensive, specific, and factual education to our children, at the earliest stages of their schooling, regarding the perils of substance abuse. " Scare tactics " or a reluctance to discuss this problem for fear of inducing the very behavior sought to be protected against are poor substitutes for candor and frankness to a constituency that often knows more than we give them credit for.

* Third, by compassion and discipline in the workplace—including appropriate drug testing procedures—so as to insure the safety of all workers and provide assistance to employees enmeshed in substance abuse. The legal right to test employees in our country was first established in a case I personally argued before our Supreme Court. It should not be viewed as a punitive procedure, but as a means to help identify those in trouble with substance abuse problems, to break the barrier of deniability, and to offer a way out.

* Fourth, by paying particular heed to conduct by role models in the sports, entertainment, and political fields, to whom citizens of all ages and from all walks of life look for guidance regarding appropriate conduct. Loose talk about " recreational " drug use, coupled often with a so-called " sophisticated " attitude toward sexual promiscuity and out-of-wedlock parenthood is all too characteristic of too many of today's role models in these highly visible fields. This must end.

* And, finally, by active participation by religious institutions and leaders in the process of strengthening the faith of those most vulnerable to the temptation of substance abuse through a loss of belief in religious tenets and prescriptions for truly moral and ethical conduct. In the final analysis, the human spirit derives its qualities from a belief in standards higher than those set by contemporary society. A strong faith, founded on principles that have stood the test of the ages, is still the most relevant source of proper standards for today's conduct.

One other matter deserves mention. From a medical point of view, as Dr. Sullivan can no doubt attest, we must continue to strive toward more effective rehabilitation and treatment modalities. As of yet, we can offer no " magic bullet " to those motivated to seek treatment and rehabilitation, as I was reminded by the plight of a brother of a member of my own staff who was enrolled in eight separate treatment programs for substance abuse, without success, before tragically taking his own life. We simply must devise better and more effective ways to aid those who are cognizant of the dreadful consequences of their continued substance abuse and who seek to lift themselves out their condition.

Obviously, much has been accomplished in recent years. But we have great distances to go. While more countries have enlisted in the effort to combat drug trafficking and drug abuse as a consequence of the rapidly spreading stain of illegal and antisocial activities, we have not yet forged the effective worldwide law enforcement network needed to exterminate the drug cartels. And while conferences such as this bring together a wide range of talented professionals, dedicated spiritual leaders, and responsible government officials to focus on a broad range of issues, we have not yet impressed upon significant portions of our societies the notion that substance abuse is not " someone else's problem. "

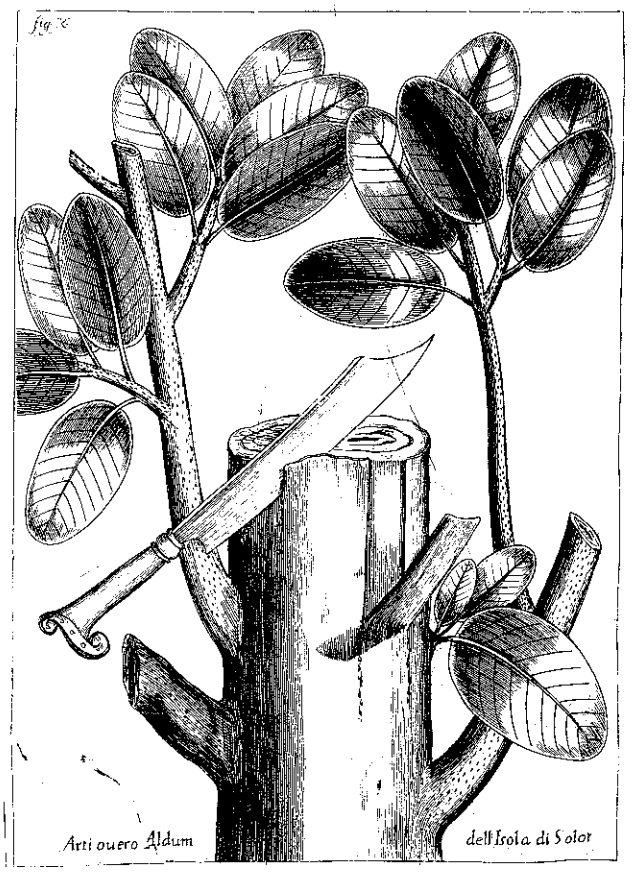
It is indeed a problem for all nations and for all of us and for each of the institutions we have devised —in different ways and in different settings—to stimulate, regulate, and develop the human potential. That potential can only be stunted and diminished by substance abuse, and, as it affects any of us, it affects all of us.

Indeed, our stake in the process of dealing with the problems of substance abuse and the need for our commitment to action in this area could well be stated in the timeless observation of the poet John Donne:

" No man is an island, entire of itself; Every man is a piece of the continent, a part of the main; if a clod be washed away by the sea, Europe is the less, as well as if a promontory were, as if a manor of thy friends or of thine own were; any man's death diminishes me, because I am involved in mankind; and therefore never send to know for whom the bell tolls; it tolls for thee. "

And so it does. Thanks to those of you who are " involved in mankind " for your kind attention and for your commitment to this important cause

Hon DICK THORNBURGH
Attorney General
of the United States of America



ROSA RUSSO JERVOLINO

The Antisocial Behavior of the Drug Addict and the Law

The new Italian law on drug abuse, approved in 1990 and deeply rooted in the principles of the New York Convention of the UN, constitutes a bold turning point in regard to the logic of permissiveness and lack of involvement by institutions in action for prevention and the recovery of drug addicts which unfortunately characterized our country for a long time.

Strongly backed by President Andreotti, approved in Parliament not without difficulty by a large majority, deemed completely constitutional by a recent court sentence, and favorably received by sizeable sectors of the population, it is, however, still opposed with enormous polemical force by the " anti-prohibitionists, " who, precisely in these days, are gathering signatures for a referendum to repeal some significant parts of the law

The basic choices applied by the 1990 norm concern problems at this point common to all countries, and, consequently, a brief reflection on these problems may prove useful.

On the front of the fight against drug traffic, the law valiantly chooses to strengthen the operative means and instruments made available to those responsible for law enforcement and to increase penalties for drug traffickers. On this front success has been immediate and noteworthy. After the law went into effect, seizures of heroin, cocaine, and cannabis in fact rose by 74.31%, 58.95%, and 16.21% respectively. In addition, the police operations which, thanks to the mechanisms established by the new law and reinforced international ties among law enforcement agencies, are directed against traffickers of increasing importance have risen by 27.15%. As for drug takers, the law clearly establishes the principle of illegality and punishment for possession and consumption, modifying the juridical system in force since 1975, which, based on illegality, provided for nonpunishment in the case of possession and use of " moderate amounts " of toxic substances. This opening has produced devastating consequences in the country, leading to the spread of drug pushing, to a substantial renunciation by institutions and society of combatting personal use, and to the surreptitious formulation of a sort of right to take drugs.

In the new norms, punishment of consumers takes the concrete form, above all, of the possibility for Prefects to apply administrative sanctions (suspension of driver's license, of permission to bear arms, etc.). The characteristic feature is that the sanction may be avoided by the drug addict if he agrees to undertake a course of detoxication. The basic objectives of the new law are, in fact, prevention and the recovery of drug addicts in addition to fighting drug traffic. The new norms and this is the cornerstone of the choice willed by the Government and the Parliament take a clear decision to assert the negative value of drug consumption.

During discussion of the law, in both the Senate and the Chamber of Deputies, a great deal was said on the subject of freedom. At root the debate over prohibition (which I feel is more rightly called assumption of responsibility by institutions in the face of drug consumption) versus anti-prohibition implies two different ways of conceiving freedom. Indeed, to be even clearer, I feel the anti-prohibition positions are entirely antithetical to a correct and realistic concept of freedom. Being or becoming enslaved to a toxic substance, self-destruction, and reducing oneself, in the hands of pushers, to a helpless pawn for their traffic and their earnings cannot, in fact, be described as freedom. Whoever consumes drugs even against his will tourishes and finances the underworld and thus behaves in a markedly antisocial manner. This is one of the messages we will convey in the next campaign of the Council Presidency which we hope will make the same positive impact as its two predecessors, thereby contributing to making public opinion aware of the antisocial character and dangerousness of drug consumption. Freedom, according to all who have supported the new law, has a much more noble and elevated meaning than the one attached to it by anti-prohibitionists. Freedom is the possibility of realizing oneself to the utmost in all of one's potentialities; it is the possibility of thinking, acting, building, and escaping from the dominion of others. Freedom is exactly the opposite of what a drug user experiences.

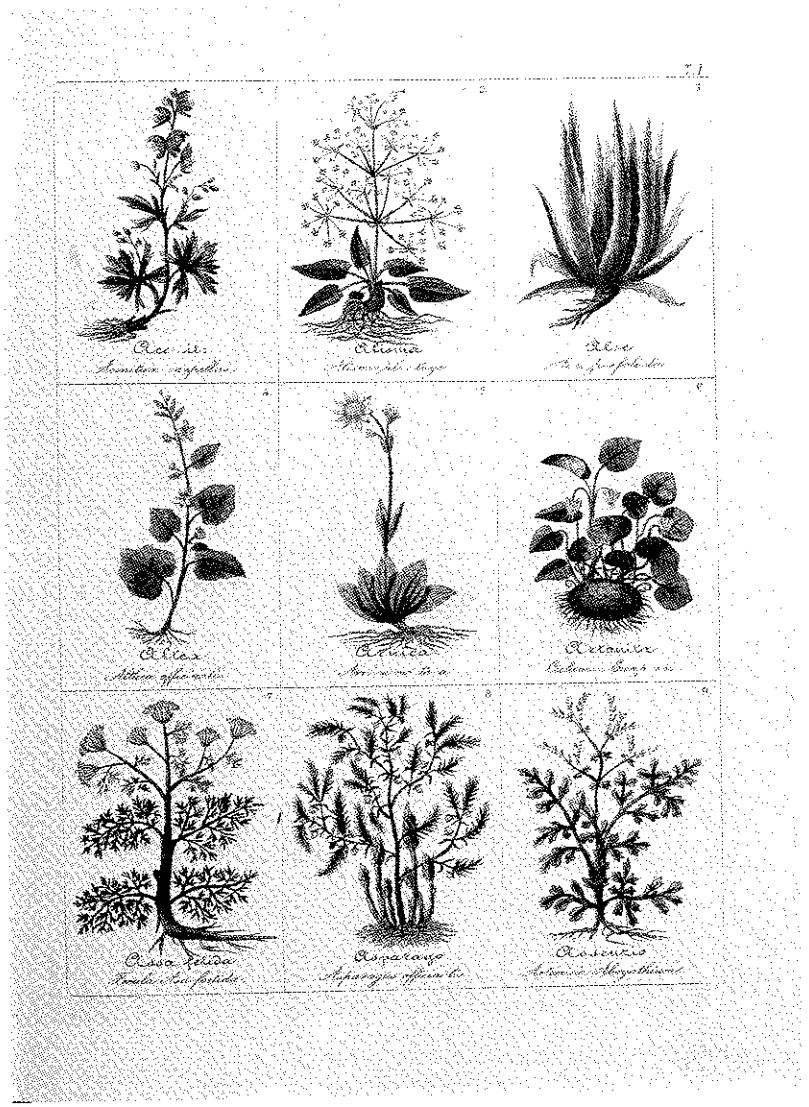
The use of toxic substances is also antisocial, for those supporting the new law, because an addition to constituting a worrisome attempt on every human person's right to health it causes serious problems for the family and for the surroundings in which the drug addict lives. An interesting fact of our experience is that, though the process of approval and initial implementation of the new law was pursued in a climate of fiery, instrumental polemics (from which the

weight of strong economic interests which the new law boldly seeks to overturn was not absent), a protest never came from the families of drug addicts. Whoever has suffered or suffers in his own family nucleus the drama of drugs and then approaches the problem with a real intention of overcoming it, or at least containing it, immediately grasps that to introduce clearly the principle of unlawfulness into the legal system and enforce it concretely constitutes an irreplaceable component of a real prevention strategy. The Government is now engaged in implementing incisively and energetically the complex, structured system to fight drugs delineated by the new law, system providing for cooperation and teamwork on a domestic, as well as international, level, between central and local government, between public institutions and volunteer groups. If on some fronts (the war on drugs to which I referred earlier) results have been notable and immediate, on others (prevention and recovery) the positive consequences of the work done involving the need to make an impact on culture and individual and collective habits will instead manifest themselves on a more long-term basis. Furthermore, it is impossible to make up for the terrible damage of years of substantial inertia in a few months. This difficulty, far from discouraging us, renders the Government's action even more deeply motivated and incisive. But public institutions, even if actively involved, cannot alone create full awareness of the dangerousness and antisocial character of toxic substance abuse. The international scientific community, the world of culture, and the different sectors of society must be mobilized, encountering the unifying value of their action in a commitment to defending man, his integrity, his true freedom and possibility for relation. For these reasons as well the meeting which is concluding today has an exceptional value and meaning. My gratitude thus goes out to those who have organized and prepared it and to all who have made an elevated contribution to it in terms of scientific competence and human sensitivity

Hon. ROSA RUSSO JERVOLINO
Italian Minister for Social Affairs



Contra Spem in Spem



Drugs and Alcoholism against Life

MANUEL VELASCO-SUAREZ

United in Hope and Action to Win the Fight

Apparent advances in the influence of drugs and alcoholism must not undermine our hope in the triumph of freedom and life.

On behalf of Mexico, I am honored to offer our respects and recognition to His Holiness, John Paul II, to whom we owe so much in a world in need of peace, justice, and health. This International Conference, "Contra Spem in Spem: Drugs and Alcoholism Against Life," has been convened by His Eminence Fiorenzo Cardinal Angelini, President of the Pontifical Council for Pastoral Assistance to Health Care Workers, for the purpose of bringing together representatives of the world's intellectual conscience to discuss the challenges and hopes for life in the face of the devastating aggression against life by drugs and alcoholism.

St. Paul left us his deep conviction concerning the *integrity* of the person and, in his incessant struggle for the Faith, the phrase "hoping against hope," to fill life with an infinite sense of hope and plenitude in human dignity.

"...For nothing and no one can separate us from *love* for all men..." (*Rm* 8:31,39).

We are now rediscovering its applicability. To speak of *hope* is to discover the future in the life of the people of God, in whose promises we are to encounter the splendor of a limitless future.

Natural well-being in this world is as fleeting and uncertain as our negligence in the face of the transcendent in human life when we confuse existence with excessive biological fatalism, forgetting the higher destiny of the spirit.

St. Paul's *hope* is an admirable support for *faith* and *charity* in the light of the values on which we must base ourselves, with the purest intention of answering for others, for no one is foreign to death and to all that goes against life. This is the case in regard to organized drug traffic and its destructive fury in the immoral marketplace of slavery and the death of those falling into addiction who renounce their human rights and their freedom.

To date many studies have made us aware of the serious individual and social effects of alcoholism and its possible points of convergence with the international drug trade, the arms trade, and their endless chain with its links of production, distribution, commercialization, dealing in technology, and consumer demand, including pornography and its concomitant excesses.

We would now like to set out once again, with *hope*, on the road of action against the disastrous effects of the consumption and abuse of alcohol and drug addiction. From this Chair —in *peace*, *faith*, and *love*, but also with our awareness open to reality— we must penetrate into the machinery of the "war of drugs and alcoholism," which seems prepared to take the place of the superseded "cold war."

We will have to agree that the recompense or satisfaction the person finds in alcohol or drugs is a fallacy, that the consequences could not be worse, and that better understanding of their fatal results relates to individual pathology, major harm to young people, and undesirable events in different societies in today's world.

The tendency to become alcoholic or seek "chemical intoxication" as an escape from honorable work, from the natural challenges of insecurity and suffering, is a manifestation of a lack of moral responsibility and an existential void with suicidal attitudes.

Alongside the social and ethical aspects of permissive conduct in the abuse of alcohol and drugs, we are observing striking phenomena of immorality, prostitution, and promiscuity and very serious harm among children, families, and workers, from manual laborers and university students to the level of managers, bureaucrats, political leaders, and so on.

It is not unusual for the deceitful action of false "good works" to crop up cynically in the marketing and manipulation of the drug traffic's underground policy.

Among poor people in developing countries, inhalation of toxic substances (solvents and cements) has been shown to produce irremediable brain damage (1,2), as is also true of alcohol, tobaccoism, and marihuana, commonly used in the industrialized countries. The even more harmful reality of other drugs, such as cocaine (3), which, though used culturally by the natives of the South American Andes (descendants of the Peruvian and Bolivian Incas), who chew coca leaves to decrease awareness of fatigue, is now found by us, with all its associated illegalities, in pure cocaine, both analgesic and illusion-producing, and *crack* among young adults, women and men, especially those belonging to minorities, the new rich or the old poor, who frequently have not acquired any moral education, are not concerned about health costs, and readily fall

into the abuse of morphine, heroin, and various opiates as well (4).

The formation of gangs, mafias organized for crime, violence, and insecurity in society are already a serious, universal problem in health associated with the drug trade.

In the United States, more than 5.3 million people are (illegal) drug addicts, according to estimates (5). In this figure the persons addicted to legal substances, such as barbiturates, caffeine, and amphetamines, are not included.

More than 60 million are alcohol- and nicotine-dependent (6,7)

In Mexico, a recent epidemiological study (1990) points out that 7.3% of the total urban population over 12 presents alcohol dependence (men predominate, at a level of 14%; whereas 1% of women are affected). Out of the total number of drinkers, 18% have been involved in accidents or criminal violence (8)

In relation to the female population, 16.8% have been found to have consumed alcoholic beverages during their last pregnancy, and cases of withdrawal syndrome have appeared among the newborn (9).

In spite of the fact that drugs and various substances (LSD, PcP) sold illegally have been shown to produce frequently irreversible damage to the *central nervous system*, the laboratories developing them (at random, chemically), in view of their possible beneficial effects in some therapeutic sense, continue to make them as part of the exploration of the pharmaceutical business, especially since, with the advent of addicts' clinics, it has been discovered that, according to individual reactions, potential victims of drug dependence or those with a propensity towards addiction, open the way for research into other psychoactive drugs which might block receptors to neurotransmitters which are eventually responsible for such psychiatric pathology.

Most of the drugs " abused " interfere with neurotransmitters, which make possible the marvelous communication of nerve cells orchestrating the complicated activity of the human brain. These events may be demonstrated scientifically by electroencephalography (EEG), magnetic resonance imaging (MIR) or magnetospectroscopy, and, more evidently, positron emission tracing (PET), particularly useful for detecting intracellular chemical changes in the brain, those which may be demonstrated through the action of drugs modifying glucose metabolism in structures of the limbic system (hippocampus, entorhinal and cingulate cortex), which are also affected in schizophrenia.

This approach is especially important to recognize the irreversible brain damage produced by (illegal) drugs in victims, along with the serious behavioral problems induced by alcoholism, with destructive social consequences.

The development of medicines to treat drug dependence has also become an important subject for investigation in view of the risk of incurable AIDS among addicts of intravenously used drugs (10,11,12,13)

Moreover, research has moved ahead in designing highly differentiated molecules to " hit the target, " the receptor of alcohol and narcotics or other chemical compounds (canabinol) which may produce effects even on a genetic level. On the map of the human genome itself there is already an attempt to modify genetic propensities to drug addiction, without evading the risks of reaching a destination in other areas which might modify the specific *integrity* of the human person.

Fortunately, promising aspects are being investigated in the treatme illnesses and neurological disturbances which include molecules and chemical compounds which might prove useful as anticonvulsives and moderators of the phenomena of schizophrenia, and it is observed that some of them may be surprisingly useful for the therapeutic handling of drug addiction (14).

Given the resemblance between mental illness and drug addiction, if the effects of any medication developed to deal with one of them are clarified, this will also prove useful to the fight against the other.

Abuse of drugs and alcohol and excesses with tobacco can cause states quite similar to certain mental disturbances with comparable processes of brain pathophysiology. In addition, either directly or indirectly alcoholism and drug addiction represent causes of death. In Mexico there are 410,000 deaths each year, on the average, due to these causes (15).

It is not strange that the use of drugs should begin in medicine with different substances, including tranquillizers or ataractics, preanesthetics and hypnotics, or stimulants, such as amphetamines and others. Their abuse, however, might signify tolerance, ignorance, or professional complicity, wherein *medical ethics* would be compromised.

The fortunate advent beginning in 1950 of psychotropic medicines, which have shown their effectiveness in the treatment of mental illnesses, has been clouded over by the incorrect use of these chemical compounds, by way of self-medication in the population which did not need them and a lack of medical control.

As far as supply is concerned, the most reliable estimates show that the cultivation and production of narcotics, along with the illicit detour of a significant part of legal pharmaceutical production, has grown in absolute terms and spread to new geographical production, has grown in absolute terms and spread to new geographical areas Not only in the regions where drug production has traditionally been an illicit activity (twelve countries in different parts of the world) has there been an increase in the areas under cultivation and the total volume of production, but new regions have also been added to the production chain. However, the expansion of demand has led not only to the participation of new producers and suppliers in third world countries (whose precarious economic conditions make drug production an attractive activity), but production in the centers of consumption themselves has increased significantly (USA).*

Although there is broad international recognition of the destructive worldwide impact of an illegal narcotics market, it is important to acknowledge that the nature of the problem is relatively different in those societies where generalized consumption constitutes the predominant condition as opposed to those where drug traffic presents itself in terms of production. Organized crime and concomitant corruption are shared realities which demand differing views and perspectives to combat the problem.

The high level of public interest in the context of such varied national situations makes it particularly difficult to coordinate policies, communication, and understanding among countries occupying different positions and maintaining different attitudes in the international drug traffic chain, as regards the criminal economy and the war of immoral commerce (16-17) making evident the moral dissolution of society and culture

In recent years there has been a significant increase in the indices of drug addiction in Mexico and all of Latin America with serious social consequences and economic repercussions. This situation has mainly affected the group of young people, who represent the future of our countries. The need is seen to deal with the problem through specific action and global attention, seeking to link together the aspects of education, prevention, treatment, and rehabilitation for a recuperated, healthy, and productive social life. The National Anti-Addiction Council of the Health Secretariat, the Centers for the Integra enormous fight to control and destroy marihuana and poppy crops have been strengthened **

In the City of Mexico, which, because of its population and size, is a megalopolis with myriad problems, a program called " Young People for Health " has been established in this connection, constituted by a network of Integral Attention Centers, with volunteer action by the community for young people in danger of addiction (alcohol and drugs) and to treat those who have slipped into drug addiction adequately

It has also been necessary to create a chain of toxicology centers to deal with emergencies and cases of acute intoxication, the early detection of a propensity towards addiction, and treatment through " short hospitalizations " and follow-up by social workers and medical students, who act educationally as well upon the family and social milieu.

For later outpatient consultation professional groups have been created, with the general practitioner, psychiatrists, psychologists, and recovered former patients who help with social work.

We must act together every time the drug traffic and alcohol threaten our social stability.

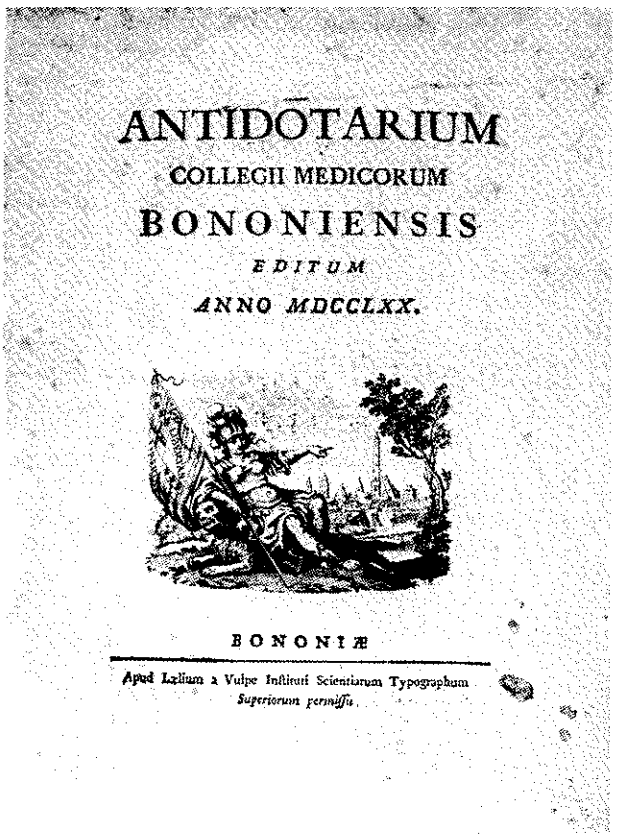
Drugs and alcoholism enslave the human being, sacrifice his dignity, and cause him to behave as if he had lost his soul while still alive.

United in hope and action, we must seek love so as to *win the fight*.

We trust that from this International Conference there will arise effective strategies and measures so that a Pastoral Commission for Health Care Workers can periodically evaluate the efforts, resources, and achievements attained in this area, which today we must deal with and undestand in depth.

We can offer the victims of alcohol and drugs *hope against hope* at the biblical table of life.

Prof. MANUEL VELASCO-SUAREZ
Emeritus Director, National Institute of Neurology and Neurosurgery, Secretary of the Mexican General Health Council



Notes

* The twelve traditional producer countries of illicit drugs are Colombia, Bolivia, Ecuador, Jamaica, Mexico, Thailand, Laos, Burma, Pakistan, Afghanistan, and Lebanon. Other important producers within the legal market are India and Turkey.

** As regards Mexico's efforts to control drugs, see Procuraduría General de la República, Coordinación General para la Atención de los Delitos contro la Salud, " Sistema estadístico uniforme sobre el narcotráfico, " *Uno más uno*, XXVIII (Nov. 1991).

References

1 R. Barroso Moguel, R. Thinner, Inhalación y Consecuencias, " Instituto Nacional de Neurología y Neurocirugía, FISAC, (Mexico 1988).

2 A. Chevaili, J. Tuber-Oklander, and C.G. Champion, " Disolventes Inhalables, " Ed. Consejo-Nacional contra las Adicciones, SSA, vol. I (Mexico 1988).

3 R. Barroso Moguel, H.J. Villeda, and A.M. Mendez, " Causas y efectos médicos del abuso de cocaína, " *Gaceta médica de México*, 126, 6 (1990), 513-518

4 J. Cabrera Solís, R. Zapata Aguilar, F W Echegaray, et. al , *Heroína. Centros de Integración Juvenil*, Consejo Nacional contra las Adicciones, SSA Mexico, vol. 2 (1988)

5 Senate Judiciary Committee, National Institute on Drug Abuse, USA (1990)

6 National Institute on Alcohol Abuse and Alcoholism, USA (1990)

7 *Alcohol and Health Seventh Report to the U.S Congress from the Secretary of Health and Human Services* U.S Department of Health and Human Services (January 1990).

8 G Solache-Alcaraz, R Tafia Conyer, et. al , " Encuesta Nacional de Salud. El Consumo de Bebidas Alcohólicas, " *Salud Mental*, 13, 3 (1990), 13-19

9 L. Abel, *Fetal Alcohol Syndrome and Fetal Alcohol Effects* (New York: Plenum, 1961)

10 W. Current, J.W Jaffe, A M. Hardy et al., " Epidemiology HIV Infection and AIDS in the United States, " *Science*, 239 (1988), 610-616

11 J.B. Brunet, D C Des jarlais, and M A Koch, " Report on the European Community Workshop on Epidemiology of HIV Infections. Spread among Intravenous Drug Abusers and Heterosexual Population, " *AIDS* (1987), 50-61.

12 D.C Des Jarlais et al , " HIV Infection and Intravenous Drug Use: Critical Issues in Transmission Dynamics, Infection Outcomes, and Prevention, " *Rev Infectious Diseases*, 10 (1988)

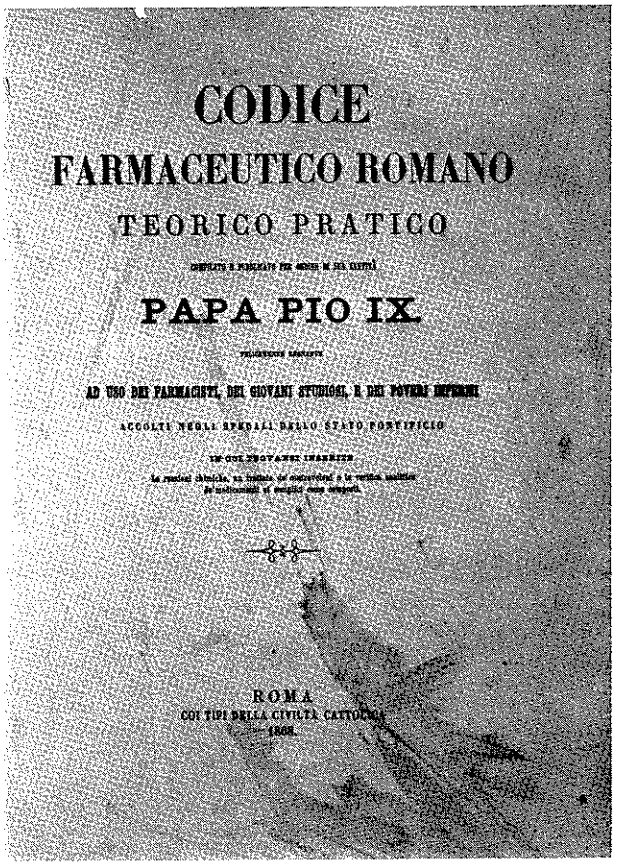
13 Lucian J Engelmajer, *Drogas y SIDA*, Ed. El Patriarca, Edificio 13 A Depto 202 U. Loma Hermosa Col Irrigación, Mexico.

14 A Herz, " Mecanismos neurotransmisores involucrados en el proceso adictivo, " *Memorias Symposium International de Farmacodependencia*, S.D N , Mexico (1991)

15 *Reporte de la Dirección General de Estadística e Informática*, SSA, Mexico (1991)

16 Marcos Kaplan, *Aspectos sociopolíticos del narcotráfico*, Cuadernos INACIPE, Mexico (1990)

17 R. Schroeder, *El mundo de las drogas*, Fourth Edition (Mexico: EDAMEX, 1990).



HERBERT KLEBER

Use, Abuse, and Dependence

Introduction

The use of certain psychoactive drugs for altering an individual's state of consciousness has probably occurred everywhere such drugs have been available and dates back thousands of years. In some instances, drug use has remained limited to a few individuals who were then labeled as deviant by the larger society. In other instances, it became so widespread as to be a part of the cultural norm with no stigma attached to the users.

In still other cases, and the United States is a good example of this category, there has been a combination of both of these. Certain drugs —alcohol, tobacco, and tranquillizers—achieved widespread use and were tolerated by society; others —heroin and LSD—remained limited to a relatively small number of individuals or groups who were then labeled deviant; still others —marijuana and cocaine—became widely used and initially tolerated, and then later became generally disapproved. Use also varies in a culture from time to time in regard both to the types of drugs used and the part of the population using them. Religious rites, such as wine with the Jewish Seder or Catholic Communion, and peyote with rituals of the Native American Church, are well known and usually socially approved, while excesses of the same agents are frowned upon, from the shame associated with Noah's drunken stupor to the loss of a driver's license for driving while intoxicated. Certain drugs are permitted in crude form, but use in other forms is considered abuse, e.g., coca tea or chewing among Andean Indians versus the smoking of crack cocaine. Cruder forms of drugs tend to be less harmful or addicting than the pure forms, but, increasingly, more refined forms, and the delivery routes that produce faster impact on the brain, predominate and drive out the older methods. The wide variation in attitudes and practices across and within societies makes it hard to arrive at definitions of terms like use, abuse or dependence that are not culturally bound and are instead scientifically based. It is also important to realize that the pharmacologic differences between drugs and between routes of administration may increase or decrease the likelihood of becoming addicted.

The present epidemic use of drugs in the U.S. appears to have peaked after a 30-year run and to be subsiding, as have previous epidemics. Marijuana is at the lowest level since 1973; heroin use is moderately stable with some rise occurring; casual use of cocaine peaked in 1985 and has dropped 70% since then. Unfortunately, heavy use of cocaine remains high and is going down much more slowly. Drug use is still on the rise in many other countries, however. The effectiveness of preventive and educational efforts is imperfect, and legal control efforts remain spotty and unsure at best. The decision to use drugs is an individual one, but the type and extent of drug usage are greatly influenced by community and national factors as well as individual ones. The only thing we can say with certainty, unfortunately, is that as long as psychoactive drugs are used, there will be many casualties of such use.

This paper will describe the magnitude of the problem and related social costs, and consider the factors that lead from use to abuse to dependence. It will focus on illicit drugs more than the licit ones such as alcohol or tobacco.

Magnitude of Problem

The use and abuse of illicit and licit substances in the United States and throughout the world is staggering. The problems reach into every aspect of life, directly affecting in the United States alone millions of people. While statistics are not perfect, a brief look at the numbers reveals the extent of the problem. Fifty-four million Americans, one out of every five, are addicted to nicotine, primarily in the form of cigarettes. Twelve to eighteen million Americans are considered alcohol abusers or alcoholics. Twenty-five million or more have tried cocaine, and approximately two million are considered addicted to it. Somewhere between 600 and 800 thousand Americans are heroin addicts. Sixty-six million Americans have used marijuana; over 5 million use it more than once a week.

Social Costs

In one poll, 3 out of every 4 Americans indicated they knew someone affected by drug abuse. If licit drugs are added to this, probably everyone in America would have had a family member, friend, or colleague who had been affected. The consequences of these numbers reach through many areas: fetal alcohol syndrome is the largest single preventable cause of mental retardation; up to 350,000 babies

born in 1989 were considered exposed to illegal drugs in utero, and estimates are that between 50,000 and 150,000 of these suffered some drug impairment at birth. There is a 25-50% higher rate of fetal and infant death among women who smoke during pregnancy compared with those who do not. Half of the nation's hospital beds are filled by patients for conditions related to substance abuse.

AIDS is spreading most rapidly through those addicted to intravenous drugs. Drugs and alcohol are also implicated in three-fourths of the nation's murder rate, child abuse, and assaults. Eighty percent of the 500,000 inmates in State prisons have used illicit drugs, and half were considered to be under the influence of drugs and/or alcohol at the time of their offense

Drug abuse has been a leading cause of the failure of many low income housing projects where residents are terrorized by drug dealers and drug-related crimes. More than half of homeless Americans suffer from alcohol or drug abuse. Two of every 3 illegal drug users are employed, either part-time or full-time Drug use in the workplace contributes to high turnover rates, declines in worker productivity, increased threat to workplace safety, and rising insurance claims. It is estimated that deaths due to intentional violence, over 52,000 a year, often are carried out in relation to drug and alcohol abuse and the unintentional deaths, such as motor vehicle accidents, fires, drownings, etc , are also often related to substance abuse. Both the personal and societal costs are staggering No economic, ethnic, racial, or age group is totally exempt.

Definitions

In the 19th century, medical use of certain substances was usually regarded as character weakness rather than criminality. Many of the predominantly rural white women who suffered from opiate addiction at the turn of the century, for example, were viewed more with pity than contempt. After the U.S. Civil War, so many soldiers became addicted to morphine for nonmedical use, (the hypodermic needle was invented just before the war) that it became known as the "soldier's disease" (1). The term drug abuse apparently was first applied to the use of cocaine by southern blacks early in the 20th century, and then to the smoking of opium by Chinese Americans (2). In both cases, it was related to fear of a despised minority. The use of heroin and morphine became included in the term drug abuse after the passage of the Harrison Narcotic Act of 1914, and in the next decades, the view of unprescribed opiates shifted from a bad habit to one of criminal activity. Addiction formerly referred to certain habits, both good and bad. Dr. Charles Towns in 1902 defined an "addictive triad" for drugs as increased craving, growing tolerance, and a withdrawal syndrome. Zinberg has pointed out the problems with that definition (1). By 1910-1920, the word had become linked to the culturally disapproved use of certain drugs. Today it most often refers to the compulsive drug seeking behavior, usually involving physical and/or psychological dependence, following the continued heavy use of drugs such as heroin, alcohol, and cocaine.

Terms such as drug abuse, addiction, and dependence have had a variety of definitions over the years and no attempt will be made in this paper to review the shifting changes. The interested reader is referred to an earlier paper by the author (3) and other reviews (1)(4). Instead, for purposes of this presentation, I would like to conceptualize a continuum (5) from Abstinence, no use of psychoactive drugs at one end, to Dependence or Addiction at the other. In between are the stages Use and Abuse The more individuals that enter the pipeline, the greater the number of eventual addicts. To decrease the number of addicts, treatment alone is not sufficient. Prevention is critical.

Users span those with occasional as well as more frequent use but with apparently no harm being suffered, by definition Abuse, the next step, could be defined as sufficient nonprescriptive use of psychoactive chemicals to alter one's psychological state where as a result of such alteration, the individual, others around him/her, or society incur some harm. It should be recognized that this is a medical rather than legal definition. Legally, any use of an illegal drug could equal abuse. Abuse, like use, is a broad category: at one end, the individual whose use is clearly under control, so that in spite of evident problems, stopping without treatment can still occur; at the other end of the abuse continuum, it shades into addiction or dependence, where loss of control has become a paramount defining feature. Individuals may go from use to abuse, and then back to abstention one or more times. Whether *dependent* individuals can go back to *stable* use, however, is a subject of much professional debate and appears to only occur, at best, in a minority of cases.

Relapse from abstention is the norm rather than the exception for dependent individuals, especially early on after becoming clean. Contrary to popular belief, relapse is often likely to occur when the individual is doing well rather than only when adversity strikes When things are going well, it is easier to believe the problem has been defeated and controlled use can again occur. It is important to note that the goal of the addict and that of the therapist may differ in this regard. The therapist usually aims for total abstinence, realizing that controlled use is unlikely once addiction has occurred and that use of any mind altering chemicals increases the likelihood of relapse back to the favorite substance. The goal of the addict, on the other hand, is usually return to controlled use. Every addict had a honeymoon in the early stages of use in which the use was controlled and enjoyable—the one drink before dinner, the line of cocaine at a party. The memory of such controlled use is part of the whole drug craving phenomenon and can be triggered by "persons, places, things" against which self-help groups warn to be on guard. However, the desire for the pleasurable feelings can be so great, and the belief system (or denial system) regarding control so impaired, that use will occur in spite of cognitive knowledge and past history of failures (6).

Relapse, of course, also occurs in relation to a variety of difficult circumstances. These can be summarized under four headings: psychiatric problems such as depression

and anxiety; social pressures, including unemployment; family problems and peer influence; protracted abstinence where automatic changes simulating withdrawal can occur; and, finally, conditioned responses such as in relation to environmental stimuli.

Symptoms of the *dependent state* go beyond the specific pharmacological properties of the drugs themselves However, the drug itself, the form in which it is taken, and the route used all influence the likelihood of going from use to abuse In general, with the same drug, the faster the chemical hits the brain, the greater the euphoria and the more likely that abuse will occur. Oral use tends to be the slowest, while intravenous injection and smoking the fastest. Intranasal cocaine users are more likely to have 2-3 years or longer of controlled use while smokers of cocaine freebase are more likely to get in trouble in a matter of months. Definitions of drug and alcohol dependence have changed over the past 40 years reflecting changes in beliefs about the nature of the disorder In the 1950's, *physical dependence* was the defining characteristic In the 1960's *psychic dependence* was added by the World Health Organization, the term reflecting the belief that excessive drug/alcohol use could be primarily a response to underlying psychopathology. In the 1970's, the concept of a *dependence syndrome* for alcohol was pushed by Edwards and Gross (7). The syndrome had 7 defining characteristics with some key underlying assumptions: both biological processes *and* learning are involved in the symptom complex; there is a *continuum* of severity rather than discreet categories; dependence needs to be distinguished from alcohol induced disabilities. In 1987, the American Psychiatric Association made the dependence syndrome the key construct for its definition of dependence and extended it to include both drugs and alcohol. This definition, part of the Diagnostic and Statistical Manual, 3rd edition revised (DSM-IIIR), was adopted just 7 years after the previous definition, and DSM-IV is already in process for early in the 1990's.

The DSM-IIIR definition of substance dependence is as follows (8):



Dsm-III-R definition of substance dependence

A. At least three (3) of the following:

1) Substance often taken in larger amounts or over a longer period than person intended.

2) Persistent desire or one or more unsuccessful efforts to cut down or eliminate substance use

3) A great deal of time spent in efforts to get the substance or in recovering from its effects

4) Frequent intoxication or withdrawal symptoms when expected to fill major role obligations at work, school, or home; or when substance use is physically hazardous.

5) Important social, recreational, or occupational activities given up or reduced because of substance use.

6) Continued substance use in spite of having a persistent or recurrent social, psychological, or physical problem that is caused or exacerbated by use of the substance.

7) Marked tolerance: need for markedly increased amounts of the substance (at least 50% more) in order to achieve intoxication or desired effect; or diminished effect with continued use of same amount.

8) Characteristic withdrawal symptoms.

9) Substance often taken to relieve or avoid withdrawal symptoms.

B. Some symptoms above have persisted at least one month or have occurred repeatedly over a longer period of time.

This definition can be seen to include three (3) key characteristics: items 1 and 2 relate to impaired *control* over the amount or length of use of the substance; items 3 through 6 are related to *salience* —the use interferes with, dominates, or replaces the usual work, home, or recreational activities; items 7 through 9 deal with tolerance or withdrawal.

Physical dependence per se is not required in order to be diagnosed as drug dependent. Cocaine, which produces less severe physical de-

pendence than heroin, may nevertheless be more addicting in regard to the likelihood of becoming addicted with certain forms (9). Some drugs, such as anti-hypertensive agents, may produce physical dependence but not psychological dependence or drug-seeking behavior. Addiction and *physical* dependence are no longer synonymous—each can occur in the absence of the other. What is critical is that the drug use becomes the driving force of much of everyday life. It is the behavior rather than the physical symptoms of dependence or disabilities that define the disorder. It is unclear, however, why this occurs. Definitions of dependence often end up being circular. They begin by describing the state outlined above and end by using it as an explanatory concept. Thus, if the question is raised as to why an individual constantly uses drugs in spite of adverse consequences, a common answer is, because he is dependent on them. The term, drug dependence, has become the explanation of the pattern of the drug use (1).



Theories of Etiology

The decision to *initially* try an illegal drug relates to many diverse factors. Curiosity, peer pressure, boredom, desire for risk taking, attempts to improve one's mood or alter one's physical state, or escape from a depressing socioeconomic environment are all explanations that have been given. The reason varies with the particular drug, as well as the way it is viewed by the larger society and by the smaller group in which the abstainer moves. Both physical poverty and spiritual poverty can be etiologic factors. Drug use that begins as a way of escaping from either kind of poverty in fantasy can end up making it impossible to escape from poverty in reality. If large numbers of individuals in a group are trying a particular drug, users may not be particularly deviant. However, when the use is restricted to a small number, there tend to be some characteristics about the individual that mark him/her as being somewhat deviant from the mainstream. Regardless, the decision to try use initially is usually not due to pathologic features per se.

Risk factors refer to any agent or circumstance that contributes to continued drug use. They can be *causal* in that use would not occur in their absence: for example, access to drugs is necessary for use to occur. However, since most youngsters with access do not use drugs, other *contributory* risk factors must also be present. Examples include peer role models, positive attitudes towards such use, and an environment that supports initial steps to use. Likewise, there may be *protective* factors that work against such use, such as strong, stable families, religiosity, and academic success. In general, the more risk factors that are present, the greater the chance of abuse or dependence occurring. Protective factors offer a target for prevention efforts by families and society.

Substance abuse/dependence appear to be complex biopsychosocial phenomena, and theories that explain the move to abuse and dependence need to look at psychosocial and biological factors as well as their interaction.

Psychosocial Factors

Early psychoanalytic theorists viewed drug abuse or dependence in a variety of ways (11), including as a symptom of depression, a manifestation of oral regression, a masturbatory equivalent, a defense against homosexuality, or a repetition compulsion. More recent psychodynamic theorists stress the role of self-medication, looking at the possible role of psychoactive drugs in regulating unpleasant mood states. Affective disorders, in general, are quite common in individuals with drug problems and personality disturbances, especially in the handling of aggressive or sexual impulses, or conflicts with dependency strivings are frequently seen. There is a large subset of drug abusers diagnosed as antisocial personality disorder where the drug use is part of a larger picture of deviance (12). This latter group often displayed such traits as shoplifting, truancy, fighting, and cruelty to animals as adolescents before ever using drugs. Presence of such be-





havior is predictive of early onset of alcohol and drug use, with the total number of such behaviors being a better predictor of adult outcome than any family variable. First grade males rated by their teachers as being aggressive had higher levels of alcohol and drug use 10 years later. The shy-aggressive youngster, the bully who is also a loner, is especially vulnerable. Minor delinquencies, such as cheating and stealing, are more likely predictor of alcohol use, while major delinquent acts tend to predict later illicit drug use.

Socioeconomic factors are frequently cited as being causative in drug use because of the higher percentage of such abuse in individuals in the lower socioeconomic groups. The individual in such circumstances may be attempting to self-medicate the environmental pain, or may view the drug use as a rebellion against a perceived cruel society, or may use because that is what is going on in the peer group.

Poverty can increase the risk for drug abuse in a variety of ways. Access to illegal substances is often greater along with exposure to adults and peers who are using. The drug dealer often appears to be one of the few economic successes in the community, and involvement in even minor ways with such activities, e.g., being the "lookout" for a dealer, will increase the likelihood of access and use. Single parent and dysfunctional families are more common and can increase the emotional pain from which the drugs promise relief. Ironically, while dependence rates may be higher among the socially disadvantaged, there are a number of studies suggesting that members of minority groups that make it to senior year in high school are less likely to experiment with drugs than more affluent white adolescents.

Family factors associated with drug abuse or dependence occur among all income groups. Various studies suggest they include being a child of a drug or alcohol abuser; a family history of depression; marital discord; being a "latch-key" child; and inconsistent or too authoritarian discipline. Having older siblings who actively use alcohol or other drugs increases risk, with the risk being greater as more siblings use. Just having an older sibling increases the likelihood both of use and of an earlier initiation into alcohol and drug abuse (12).

Some authors postulate a gateway model in which alcohol use typically precedes marijuana use, which in turn precedes use of other illicit drugs. Cigarette use may also serve as a gateway to marijuana use, which then leads to use of other illicit drugs. However, despite the high prevalence of alcohol and drug use among youth, only a small percentage of adolescents go on to *abuse*.

Children with symptoms of attention deficit disorder, hyperactivity, and some learning disorders appear to be at increased risk for involvement with and dependence on alcohol and illicit drugs (12). Poor school performance, truancy, and a history of academic failure are prognostic of later drug abuse, as are limited intelligence and perceptual deficits.

Biologic Factors (11)

Studies of twins, adoptees, and siblings reared apart have clearly demonstrated the importance of genetic factors in the transmission of alcoholism. The genetic factors do not *cause* the alcoholism but render the individual more at risk. The role of genetic factors in the development of other substance abuse is not so clearly indicated. This may relate in part to the ubiquitous availability of alcohol and the lack of availability of various illicit drugs at different times in a culture. Thus, it may not have been possible to have a parent who was a cocaine or heroin addict if they grew up in an area or era where such drugs were rarely available.

It is also possible that various neurobiologic mechanisms can aid in the transition from abuse to dependence. For example, heavy use of cocaine interferes with dopamine reuptake. This can lead to a state of anhedonia in which normal activities that provide pleasure no longer do so, and life is seen as increasingly gray, with the only pleasure being return to the use of more cocaine.

One can postulate a model in which genetic and/or psychosocial

risk factors lead to an increased possibility of use turning into abuse/dependence Once such an intensified pattern occurs, neurophysiological changes take place which persist, make the likelihood of further use more probable, and the return to moderate, nonabusive use unlikely.

Conclusion

Substance abuse and dependence are complex biopsychosocial phenomena. A continuum from use to dependence is postulated with the latter occurring in degrees rather than on an all or nothing basis. The tenacity with which the condition can persist and be associated with the loss of all that an individual holds dear suggests that more than " will power " is involved. It is quite possible, indeed probable, that what begins as a psychological or psychosocial problem can lead to biologic changes that persist and are associated with resistance to extinction of the drug taking even when the original risk factors are no longer present As the poet T.S. Eliot has warned us, " After such knowledge, what forgiveness? "

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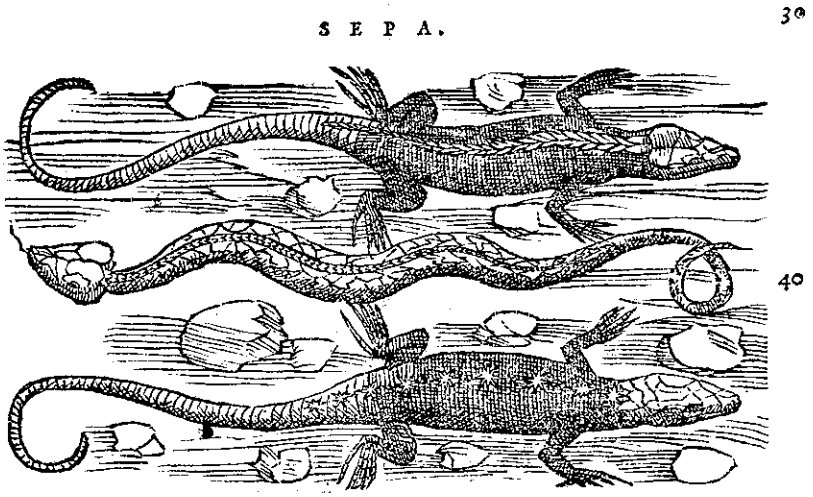
References

1. ZINBERG, N.E., HARDING, W.M., and APSLER, R. (1978) What is drug abuse? *J. Drug Issues* 8:9-35.
2. MUSTO, D.F (1973) *The American Disease. Origins of Narcotic Controls* New Haven, CT: Yale Univ. Press.
3. KLEBER, H.D. (1990) *The Nosology of Abuse and Dependence, J Psychiat Res* 24 (Suppl. 2): 57-64
4. BERRIDGE, V (1990) Dependence: Historical concepts and constructs. In: *The Nature of Drug Dependence*, edited by G Edwards and M Lader Oxford Univ. Press, New York, pp. 1-18.
5. JAFFE, J.H. (1985) Drug Addiction and Drug Abuse In: The *Pharmacological Basis of Therapeutics* (7th Edition), edited by A.G. GILMAN, L.S. GOODMAN, T.W. RAWL, and F. MURAD, MACMILLAN Press, New York, pp. 532-581.
6. KLEBER, H.D and GAWIN, F.H. (1986) Cocaine In: *Drug Abuse and Drug Dependence A P A Annual Review* 5:160-185.
7. EDWARDS, G. and GROSS, M.M. (1976) Alcohol Dependence: Provisional description of a clinical syndrome. *Br Med. J.*, 1:1058-1061.
8. Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (1987) Washington, D.C.: American Psychiatric Association
9. GAWIN, F.H. and KLEBER, H.D (1986) Abstinence symptomatology and psychiatric diagnosis in cocaine abusers *Arch Gen. Psychiatry* 43:107-113
10. STEINBERG, L. (1991) Adolescent Transitions and Alcohol and Other Drug Use Prevention In: *Preventing Adolescent Drug Use: From Theory to Practice*, edited by E.N. Goplerud, OSAP Prevention Monograph 8, U.S. Public Health Service, ADM91-1725, pp. 13-51.
11. Group for the Advancement of Psychiatry, Committee on Alcoholism and the Addictions (1991) Substance Abuse Disorders: A Psychiatric Priority, *Am. J Psychiat* 148:1291-1300.
12. LORION, R.P., BUSSELL, D. and GOLDBERG, R. Identification of Youth at High Risk for Alcohol or Other Drug Problems. In: *Preventing Adolescent Drug Use: From Theory to Practice*, op cit., pp. 53-89



ZDZISLAW JAN RYN

Andean Coca: Cultural and Medical Aspects

The use of coca is one of the oldest traditions among the people of Latin America. It is especially popular in the countries of the Andes, and has been reflected in numerous activities of their inhabitants. It appears in their history, their culture, their ceremonies, and faith. It is a very important element of popular medicine, too.

In the abundant literature on coca and its influence on man, one can find, on the one hand, its fervent defenders who consider the leaves of this plant almost a panacea for the curing of many illnesses and pains; on the other, you find its relentless adversaries, who believe that coca is the cause of physical and psychic sufferings and diseases. There are those who think it to be a poison which leads to psychic and moral degradation of man.

The studies which have been carried out during the last years by anthropologists, ethnographers, physicians, and biologists show frequently a positive influence exerted by coca on man. But, first of all, the chewing of coca leaves has been strictly separated from the use of cocaine in Western societies, because from the medical point of view, they are two completely different phenomena.

Chewing coca is a social custom, not more dangerous to health than cigarettes, tea, or coffee. Coca is the cultural symbol for belonging to a social group: strengthens the unity of the group and keeps its identity alive. For this reason, in the culture of the Andes, the collective and ceremonial use of coca is determined by tradition and morals (Mayer, 1978)

Historical aspects

A Peruvian legend says that the Gods took the coca leaves to the Island of the Sun. Coca was considered a " divine plant, " since it was a source of power and the symbol for fertility. The Inca Venus is depicted with coca leaves —the symbol of power and fertile love.

The leaves motif appeared frequently in arts: in ceramics, stone sculptures, and painting. Coca leaves were put into the mouth of the dead to supply their soul with power. The leaves were often a decorative motif for the dresses of Incan mummies. There are elements in the stone sculptures of St. in Columbia which prove that coca was already used at the beginning of our era, that is to say, more that 1000 years before the Incan Culture. Ceramics lead us to even more remote ages. The pottery of the " Mochic " culture (about 500 B.C.) represents indigenous faces with the typical expression— the convex cheek, due to the pallet of coca leaves. And in Peru, coca was probably already cultivated more than 4000 years ago.

Coca was used in religious ceremonies, sacrified to the Gods. But it was also used for other tasks. Thanks to the Spanish chronicles (Pedro Cieza de León, José de Acosta, and others) we know that the quipucamayus—famous for their extraordinary memory—made use of coca leaves. They were professional chroniclers of their history, religion, customs, and trade. Since the Incas did not know writing, memorization was the only form of history transmission to future generations.

The Incas messengers—the famous chasquis—made use of coca, too. Probably thanks to coca, they were able to cover long distances in a mountainous, difficult region, facing great altitudes (Burchard, 1974, 1975).

The Incas believed in coca's power to increase the intellectual capabilities. This was the reason why they limited the right to use coca to high governmental spheres. The simple farmer had no right or possibility to chew coca. For him, the leaves were a tabu (Martin, 1970).

Coca was also used as an anaesthetic in brain trepanations, which were done not only for medical, but also for religious reasons. There is proof that many of the victims of these primitive and dangerous operations survived. In native popular healing, the use of coca is very common, too (Cabieses, 1946, 1974).

After the fall of the Empire of the Sun (1536) coca lost its symbolic power and stopped being a privilege of the mighty. Coca chewing quickly spread among all classes of Indian society, especially among the poorest who had to do hard labour. Today, the situation in the Andes is basically still like that.

The mysterious plant

In botany, coca is known as Erythroxylon Coca. It grows to one meter length. The leaves are 5-6 centimeters long and have a typical oval form. Its small white blossoms look like orange blossoms.

The Incas cultivated coca only on special terraces which were prepared only for this purpose—called " cocales. " Today, plantations occupy vast areas of the Andes'

slopes, especially in the warm, humid, and sunny valleys. The leaves are harvested 3-6 times a year, according to the climatic conditions. They are dried in the sun carefully, avoiding fermentation which would cause the loss of their pharmacological value. The methods of coca cultivation have not changed for thousands of years.

The biggest plantations lie in Peru and Bolivia. The plant plays an important part in the economies of both countries. In Peru, in 11 out of 24 districts, coca is cultivated on industrial scale, on a total area of 16 000 ha. The present production is of ca. 10 million kg. According to official data, in Peru 1 million " chewers " consume 6 million kg annually These figures have obviously been lowered.

In Bolivia, more than 50 per cent of the native population is supposed to chew coca. In this country, seven thousand tons of leaves are used yearly, two thousands are legally exported, in the first place to the United States.

Coca leaves also contain, besides the alkaloids of cocaine, many nourishing and vitamin substances. Studies carried out in the Botany Museum of Harvard University revealed that coca, compared to other 50 vegetable products of South America, has more of the following substances: albumin, carbohydrates, cellulose, iron, vitamins A and B. It also has more calories (Duke a o. 1975).

Why do Indians chew coca?

It is surprising, but the answer to this question has been the same for centuries—identical to the one I got from and old Indian of the Zongo Valley (Bolivia): Coca eliminates the feeling of hunger and gives power.

In the 16th century, Cieza de León put the same question and got the following answer: " . . they told me that they did not feel hungry and that this plant gave them more power and vigour " (Pedro Cieza de León 1959).

Almost identical answers can be found in successive chronicles. A scientist of today who studies the phenomenon would probably not even get that answer: the Indians of the Andes are distrustful and reserved with whites, and the question as to why they use coca seems senseless to them. The survey carried out by Carter and Mamani (1978) proves that the subjective reasons for Coca use are the following: labour and medicine; eliminating hunger and resisting cold.

Coca also has magical powers for them; it can help to protect, to harm, to change bad luck, and to see into the future. Simbolically used by the healer, it can transform the past in one of the main elements of indigenous psychotherapy. There is a close relation linking social, psychological, and physical health. Curing by ritual and symbolical treatment is scientifically possible if one comprehends this indigenous psychotherapy in the context of psychosomatic medicine. It can be said that all use of coca is consecrated by myth. Zorilla (1978): " The Gods, the Incas, and the ancestors in a primordial and sacred time determined the rules of social and individual use of coca. " Thus, from a anthropological point of view, the experience of coca is an experience of social solidarity and —from the mystical point of view— a sacred experience of spiritual identification and universal unity

The influence of coca on the human organism

What had been observed for centuries was also proven by science. Cocaine and other alkaloids which affect the human organism were separated from coca leaves. It has been demonstrated that only a minimal quantity of alkaloids enters the organism when chewed. Most of the alkaloids are dissolved by saliva and gastric juices.

It should be mentioned that Sigmund Freud (1884) yielded to the attraction of cocaine. When he noticed that this was one of his biggest faults, it was already too late—one of his patients treated with cocaine died of an overdose.

However, it is interesting that studies do not confirm an objective increase of muscular power in coca chewers. This effect is merely subjective and seems to be the result of the diminution of tiredness by means of cerebral stimulation. But it has been proven that coca does stimulate cardiac activity and augments respiration (Cabieses, 1946).

The diminution of appetite —that is to say, the neutralization of hunger—is also a consequence of cerebral stimulation. The anaesthetical effect of coca—known and used by ancient indigenous medicine—is produced by the blockage of the electric conduction of the peripheral sensitive nerves.

Experiments showed that coca causes a slight increase of the body's temperature; it thus protects the organism from outside cold, which is very important at great altitudes (Chamochumbi, 1949; Hanna, 1971; Little, 1971).

Up to now, nothing has been said about physiological dependence on coca. But the general opinion is that it does not lead to symptoms of addiction or abstinence. Hence, coca chewing is not a vice in the classical sense of the word.

On the basis of the bibliographic facts and my own observations among the inhabitants of the Peruvian and Bolivian plateaus, I share the opinion of those experts who do not associate particular injuries to the central nervous system and its consequent degenerating influence on the human body with coca chewing.

Medical properties of coca

The medical properties of coca had been known since the remote past. Coca is used in diagnosis, healing, and prognosis. Diagnosis and forecast by " reading coca " is a speciality by native healers. The use of coca as a medicine is very popular. Its anaesthetic and vaso-constrictor properties, together with the belief in its magical power, have made of coca a very important means of folk medicine.

Coca infusion is used to calm digestive disorders. Coca leaves are also applied to soothe rheumatic pains, headaches, to treat asthma and allergies, to accelerate birth. Since the remote past, people have believed that coca stimulates sexuality and increases sexual potency.

Some chroniclers of the 19th century and today's experts underline the fact that chewers are healthier and live longer. The studies on longevity carried out in Equador deserve special attention. Coca is

also believed to have a positive influence on psychic disorders such as neurasthenia, psychic exhaustion, depression, etc.

Frequently, I had the opportunity to observe coca chewing among tourists in the Andes, skiers, and also among students in times of intense studies and exams (Cardenas, 1952; Ryn, 1979, 1985).

Coca chewing, the ceremony of its preparation, and its influence on the body favour meditation and contemplation, as pipe or cigarette smoking does, but without the harmful effects of nicotine

Coca use involves communion and community, whilst alcohol involves hierarchy. Coca unites the group whereas alcohol differentiates the roles of the group. Coca talks and convinces; drink compromises and obliges—says Mayer (1978).

From the medical point of view, coca has multiple applications. Hulshof (1978): " ... There is no other drug in traditional medicine which can be used in so many ways and whose efficiency has been proven empirically. "

Coca at high altitudes

There is a clear relationship between the frequence of coca chewing and altitude. In the Andes plateau coca is chewed everywhere. In the valleys it is less frequent, and becomes exceptional at the sea-side In the cold seasons, coca consumption increases. Hanna (1971) believes that the use of coca in great heights helps men to combat the conditions of cold and hypoxia. The Indios have been using coca for centuries to cure the sickness of altitude, called " soroche "

Coca in the life of the Andes' miners

Coca leaves play a leading part in the customs and life of the miners. Coca is not only a stimulant, but also a very important magic, ritual, and religious element. The miners believe in the existence of the pre-Christian spirit Huari, who lives in the mountains of mineral abundance. Only Huary knows where the gold veins lie, and it is only he who can guide men to them—after having received the due offer, of course. Huari appears in two forms—as an uncle or as the demon—the personification of good and evil. The miners make an effigy of the uncle and put it in the mine, in the place where they normally take a rest from work. The uncle's body has to be of gold. They put some coca leaves in the disproportionally big mouth, a bottle of alcohol in his hand and cigarettes in his nose. The coca leaves, which are a present of Pachamama, guarantee the spirit's advice and help in their difficult labour.

The tradition of these cerimonies —which form part of a deep faith and an emotional involvement of the miners—lies in a remote past. Perhaps these rituals play the role of a pyschological defense mechanism in view of the difficulties of life and work.

In the rich folklore of the inhabitants of the Andes, coca is the central part of their culture.

CINOGLOSSA VOLGARE FIORITA.



The adversaries of coca

Even if their number is limited, their opinions and studies on this tradition cannot be omitted. Among the adversaries of coca, Blejer-Prieto (1956) has taken an extreme position: he believes that no other product has exerted so much negative influence on millions of people as coca has done for centuries. In his opinion, coca may protect natives from the austere environment—but it deprives them of their ambitions and destroys their future.

In the decade of the 40s, many articles on the negative influence of coca were published. Carlos Ricketts (1940) wrote that two poisons determine the life of the Indians: coca and alcohol. The Indian race is poisoned, and the consequences of this intoxication affect the intellectual sphere. In his opinion, a young Indian is healthy and perfectly adapted to the natural conditions of the Andes plateau. He is, moreover, intelligent, quick-witted, happy, ambitious, and receptive and has will-power.

An Indian of mature age, after years of coca and alcohol consumption, is undernourished, weak, apathetic, incapable, and unreceptive —he does not want to get knowledge of new things anymore. And worse, even his morality changes. He is rude, lies, lets himself go, and frequently steals. Finally, he becomes indifferent, gives up, and does not try to better his situation " Ricketts concludes: " A poisoned race is living in the mountains; a race with a strong, healthy, vigorous nature. But we believe that this race is degenerating, getting stupid, a race that destroys itself to the point of utter perdition. Ricketts thinks that only by giving up drinking and coca the Indian race can be saved.

The idea of a degradating influence of coca also appears in the studies of some Peruvian researchers.

Gutiérrez-Noriega and Zapata-Ortiz (1948) describe alterations of the psychic state due to chronic coca chewing. The chewer becomes more and more apathetic, sentimentally indifferent, disinterested, and antisocial. Sometimes, even more serious disorders like deliri-

ums, anxieties, obsessions, and hallucinations may occur. Zapata-Ortiz (1944) is perhaps the only author who has said that chewers may suffer from the abstinence syndrom, once they have given up chewing.

However, a close look at the studies carried out by Gutiérrez-Noriega and Zapata-Ortiz reveals fundamental methodological faults, due to the wrong criteria for the selection of control groups and the omission of influential factors such as malnutrition, chronic alcohol abuse, the influence of hypoxia, etc. Whilst the Western world was engaged in the controversy on the malign effects of coca, the physicians of the Andes countries seemed to be sure that coca was the most beneficial plant on Earth.

The discussion about the pros and cons of coca use is highly emotional. I believe that coca is neither the worst demoniac evil nor the divine panacea which cures every illness. Its use has positive and negative aspects which are embedded in a specific cultural context. Thus, it is necessary to carry out new studies to eliminate the doubts, before we can definitely say whether coca produces harm to health or not.

Social values of coca

Coca is almost never individually chewed, save for a strict necessity, like a long march. Chewing coca is a basically social act. This custom plays an important part in the communication among the members of Indian society. Coca is chewed in fiestas and shared work, like the construction of a house, school, or church. Coca is used together, and together people believe in the magic and protective power of coca.

Gutiérrez wrote in 1948: " Coca has always been the preponderant factor for the formation of Peruvian indigenous societies. There is no event which is not accompanied by the tradition of coca chewing. ... Chewing creates a special atmosphere and a sentimental bond, produces human solidarity. This custom has got its own ritual, order and label.

Coca is the vegetable product with the broadest application in all aspects of life of the Andes' people; it is a present which means friendship and generosity. Sharing coca in a fiesta is an act which seals confidence. "

Javier Zorrilla (1978): " Chewing coca means to enter and to feel —outside and inside—the mythical and primordial space-time of the Gods, the cultural heroes, and the ancestors. "And the most important aspect: coca distinguishes the Indian from the rest of society. In a certain sense it even discriminates against him. Those who don't chew may be excluded from the indigenous community. In this way, coca is a very important factor for the integration and social identity of the Indians. According to Hanna Noel (1974), very few governments are able to exert such an integrating influence on society as coca does in some regions of the world.

Conclusions

At present—according to the UN Commission (1978), coca chewing cannot be considered a form of drug addiction, in the medical sense of the world. Given the social and economic nature of the factors which determine the tradition of chewing coca leaves, a radical and immediate suppression of this habit is impossible. A suppression of that kind would, rather, deteriorate the situation, far from solving the problem.

Ins Ochiai (1978) concludes her study on coca with the following: " ... People eat yuca in order to live to day; but if they want to enter the other current of time, of yesterday or tomorrow, they chew coca. Coca helps to live again. "

In this sense, coca of the Andes is a central element of the religious worldview and the ritual universe of the natives, a survivor of legendary Peru. As Caceres said (1978), " Its elimination would be a sign for the end of a world, an apocalypse of the Andes. Until today, in the Andes there survives a people who consideres reality sacred. The Andes' coca exemplifies and justifies this phenomenon.

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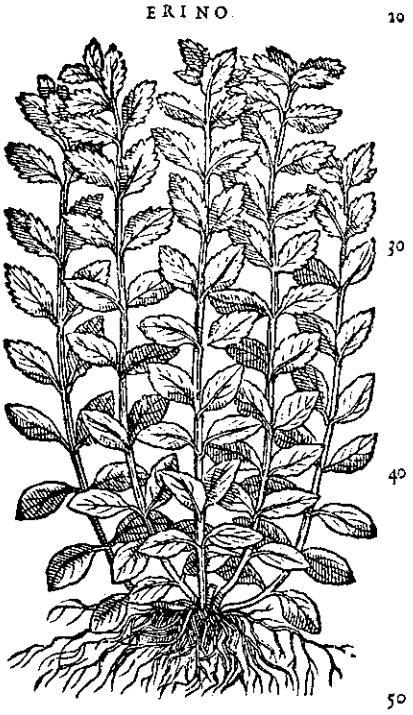


References

BLEJER-PRIETO H (1956): *Coca leaf and cocaine addictions*. Some historical notes Canadian Med. Ass. J., 93:700-704.

BURCHARD, E.R (1975): *Coca Chewing: A New Perspective*. En: Cannabis and Culture. The Hague, Monton, pp. 463-484.

BURCHARD, R. (1974): *Coca y trueque de alimentos* En: G. Alberti, E. Mayer (eds): Reciprocidad e Intercambio en los Andes Peruanos Instituto de Estudios Peruanos, Lima, pp. 209-251.

CABIESES, F. (1974): *Dioses y Enfermedades*. Artegraf, Lima

CABIESES, F.M (1946): *La acción antifatigante de la cocaína y la habituación a la coca en el Perú*. Anales de la Fac. de Med., (Lima), 29, 4:316-367.

CACERES, B. (1978): *La coca, el mundo andino y los extirpadores de idolatrías del siglo XX* América Indigena, 38, 4:969-785.

CÁRDENAS, M. (1952): *Aspectos psicológicos del coqueo*. Bulletin on Narcotics, 4, 2:6;10.

CARTER W.E., MAMANI M.P., (1978): *Patrones del uso de la coca en Bolivia* América Indigena, 38, 4:905-937.

CHAMOCHUMBI, N.M (1949): *Efectos de la coca sobre el metabolismo basal en los sujetos no habituados* Rev. Farmacol. Med. Exp., 2:94-113.

Comisión de estudio de las hojas de coca: Naciones Unidas. Documentos América Indigena, 38, 4:1008-1021

DUKE J., AULIK D., PLOWMAN, T (1975): *Nutritional value of coca*. Botanical Museum Leaflets Harvard University, 24, 6:113-119.

FREUD, S. (1884): *On Coca* Centralblatt für die Gesammte Therapie, 2:289-314 También en: Cocaine Papers, Dungnin Press, 1963

GUTIÉRREZ-NORIEGA C., ZAPATA-ORTIZ V (1948): *Estudio de la inteligencia en sujetos habituados a la coca*. Rev Farmacol Med Exp., 1:32-68

HANNA, J.M (1974): *Coca leaf use in Southern Peru*. Same biosocial aspects American Anthropologist, 76:281-295

HANNA, J.M (1971): *Further Studies on the effects of coca chewing on exercise*. Human Biology, 43, 2:200-209

HULSHOF, J (1978): *La coca en la medicina tradicional andina*. América Indigena, 38, 4:837-846.

LITTLE, M.A. (1971): *Effects of alcohol and coca on food ingestion during cold exposure*. Am. J. Physical Anthropol., 34, 2:273-277.

MARTIN, R.T. (1970): *The role of coca in the history, religion, and medicine of South American Indians* Economic Botany, 24, 4:422-438

MAYER, E. (1978): *El uso social de la coca en el mundo andino: Contribución a un debate y toma de posición*. América Indigena, 38, 4:849-865

OCHIAI, J. (1978): *El contexto de la coca entre los indios Kogi*. América Indigena, 38, 4:43-49

PEDRO DE CIEZA DE LEON, (1959): *The Incas of Pedro de Cieza de León* Transl. Harriet de Onis. Ed V.W. von Kagen, Oklahoma, pp. 259-260

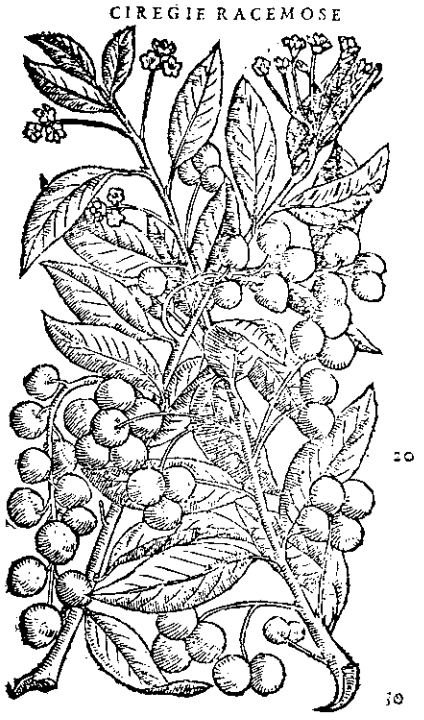
RICKETTS, C.A. (1940): *La cocainomania del indigena, factor de degeneración racial* La Crónica Médica (Lima), 57:25-30

RYN, Z. (1979): *El coque y la vida en las grandes alturas*. Apuntes de Med. Deportiva, (Barcelona), 16, 62:132-136

RYN, Z. (1979): *Liście coca w obyczaju i medycynie andyjskich Indian* (Las hojas de coca en las costumbres y la medicina de los indios andinos). Polski Tugodnik Lekarski, 34, 33: 1323-1325.

ZAPATA-ORTIS, V. (1944): *Modificaciones psicológicas y fisiológicas producidas por la coca y la cocaina en los coqueros* Rev Med. Exp., 3:132-162.

ZORRILLA EGUREN J (1978): *El hombre andino y su relación mágico-religiosa con la coca* América Indigena, 38, 4:867-874



BONIFACIO HONINGS

The Value of the Body in the Fight against Alcoholism and Drugs

The phenomenon of alcohol and drug dependence is constantly on the increase, particularly among young people. At the outset there was talk of alcoholism as an illness, not as a vice-failing of the individual drinker. It was a way of rendering the problem less dramatic and, above all, treatable, as well as manageable, on a medical, psychological, and social level. With the introduction of the concept of alcohol/drugs as equivalent to illness, attention was

shifted from dependent persons to their family nuclei and their broader social groups. The Club for Alcoholics under Treatment in the Friuli-Venice-Giulia region, after ten years' experience at the weekly sessions with both those affected and their relatives, has reached the conclusion that what is involved is not so much an illness as a "lifestyle." The concept of "treatment" has, therefore, been introduced as preferable in place of that of "therapy."

Those dependent on alcohol and drugs are no longer cared for over a five year period, but are instead oriented towards a path lasting for the rest of their lives with respect to themselves, their families, and the whole local community.[1] Through this conceptual evolution, the phenomenon of alcoholism and drug abuse demonstrates that those affected are not only people dependent on alcohol and drugs, but also the primary and secondary groups in which each of them lives out and shares his or her existence. In other words, if alcoholics and drug addicts are not sick people, but persons following a mistaken lifestyle, according to therapeutic experience the remedy should be sought increasingly in treatment on a cultural level, i.e., from an axiological standpoint.

Hence I got the idea of presenting the value of the human body as a weapon to combat, particularly in terms of prevention, the physical and psychic dependence of alcoholics and drug addicts.

1. The Body in a Monistic View of Man

In this approach of mine with a positive, constructive nature I bear in mind that all specialists agree in asserting that those experiencing substance dependence are notably helped to "find themselves again" and provide maximum collaboration with the treatment program if they are offered a strong motivation.[2] This motivation must be such that it either enables them not to enter the tunnel of progressive slavery or, once they have entered, sustains them in moments of decline and withdrawal syndromes when trying to come out of it.

Obviously, such a motivation must surpass the realm of the contingent; it must be situated on the scale of values with an "absolute" and "unquestionable" character. It is of interest to note that the aforementioned authors base their plans on Being as the principle of all reality and knower of the personal history of every human being. This infinite Being, and this is of extreme importance, loves every drug addict and wants his or her liberation more than anyone else.[3]

It should be stated that in an areligious, and even atheistic, world, this appeal to an absolute Principle may seem utopian. And yet it remains undisputed that treatment for both prevention and recovery demands that intense spiritual content be given to the lives of alcoholics and drug addicts. One of the most insightful Italian experts on this subject, Professor G. Bonfiglio, asserts that treatment must be based at least on love for life and human brotherhood; a spiritual content which is renewed every day with the intention of not drinking or taking drugs for twenty-four hours and a constant willingness to help and be close to whoever is still in the spiral of alcohol or drug dependence.[4]

In line with this axiological formulation, that is, the pro life option, we encounter the pedagogical failure of the deterrent method as well. It is now evident that fear of the disastrous consequences of alcohol and drug abuse does not work. All information in this regard, be it in the family or at school, by way of the mass media or pamphlets, has not succeeded in diminishing the number of those dependent on alcoholic drinks and drugs.

On a Dutch television program of October 4, 1991 concerning the subject of alcohol abuse by young people between the ages of thirteen and twenty, I heard the remark that fear may be present at the beginning, but that after the first glasses there is greater need to go on. Sixteen years old girls spoke about drinking from twenty to twenty-five glasses of beer to reach a complete blackout. After these stories a doctor explained all the possible maladies such bold behavior might produce. The reaction common to boys and girls was that such maladies did

not frighten them. That is why I am trying to propose the weapon of the axiological challenge, i.e., I am not setting up a scarecrow, but opening the fan of the anthropological and theological meaning of the human body. What follows seeks to be a hymn to the value of the body in the context of man's development towards final sharing in the triumph of the Risen Christ.

1.1. The Unity of the Human Being

Our discourse is based on biblical anthropology of both the Old and New Testaments. When dealing with man, the Bible uses three terms, above all: soul (nephes), spirit (ruach), and body (basar).

The term nephes indicates blowing or breath and thus designates man's life. But let it be carefully noted that it does not designate life abstractly, but rather concretely, and therefore involves man as a living being.

In fact, as long as man has breath, he is alive and not yet dead.[5] In this sense, with the word nephes it is understood that living, animate man is being designated, as is brought out by the fact that the term is so often equivalent to the pronoun and indicates the person. According to the estimates of some exegetes, this takes place at least 123 times; indeed, for others it is a question of up to 223 times.[6] Here is a significant text referring to the liberation of Lot. " That town over there is near enough to flee to, and is small. Let me flee there! after all, it is only a small place. . and so my life will be saved " (*Gn* 19:20). In other words, in biblical terms my, your, and his nephes, i.e., " life ", may, and often does, signify " I, " " you, " " he, " " she. " For biblical man, the term nephes has nothing to do with the Platonic body-soul dichotomy. The soul does not dwell as an independent mass in the body as if in a jail from which it would be liberated by death. The soul is man in his totality. In short, man does not have a soul, but he is a soul. From this totalizing and personalizing vision of man it follows that basar as well, the human body, does not stand for the material element in opposition to the spiritual one; there is simply a desire to denote the animate body with the term basar, i.e., man in his totality.[8] One proof of this monistic conception of the term basar is found in the fact that it is in no case used to express the dead body of man. Consequently, this term, too, clearly refers to the unity of the human being; my, your, and his basar is, then, most often synonymous with I, you, he, and she. The expert on this topic, Lijs, asserts, " Mon basar c'est moi, être charnel. "[9] The same scholar even gives the term the meaning of living communion at all levels, where the Bible speaks of the married couple's " one flesh. " " Basar c'est la totalité de l'être humain, qui est un être de chair, et le terme est employé ici en quelque sorte par extension pour désigner la totalité et l'unité du couple. "[10]

It is now clear that biblical terminology does not recognize a carnal sphere and a spiritual sphere in man, in the dualistic sense of our modern language. This is particularly manifested when the term basar is used to emphasize the ontological dependence of all flesh i.e., of every man, on God " For a Jew man depends on God in biological life as well. Man lives only as long as he breathes; but breathing, breath, (rûach) is not something which is possessed once and for all, but it must be renewed in every instant by God. "[11] We find this idea of man's continuous, existential dependence on God unmistakably formulated by the Fathers of Vatican II in the Pastoral Constitution on the Church in the Modern World: " ... Man does not, in fact, exist, except as created by God out of love and conserved by Him, also out of love. "[12]

In short, basar does not denominate the human body ever, understood as the material component of man, but designates man, every man, in the totality of his human being. It is, however, true that his bodily being is thus accentuated, that is, man is basar, body, to recall his fragility and continuous dependence on the creative intervention of God. Let it be quite clear, though, that no ethical or moral judgment is expressed thereby, but only the ontological-existential situation of every man before God.



1.2. Man's Religious Being

It is precisely this religious being as well, i.e., this relationship of man to God, which the Bible seeks to identify and specify. In effect, in the monistic view of man we also find the term rûach (" spirit "), without the human being's unity undergoing the slightest fissure. In any event, it should be stated at once that the sense of the rûach is not so much anthropological, i.e., oriented towards man in himself, as religious, or related to God. The term rûach (spirit) seeks to stress the relational dependence of man, of every man, upon God in terms of dialogue. The expression " Spirit of God " (rûach YHWH) recalls the idea of the divine power manifesting itself in history. This phrase, " Spirit of God, " leads us to the memorial fact that God bends providently over his creation, acting therein and, above all, dialoguing with his favorite creature, man, made in his image and likeness, male and female. Rûach, when applied to man as an expression of his relationship with God, seeks to point out that God Himself wants

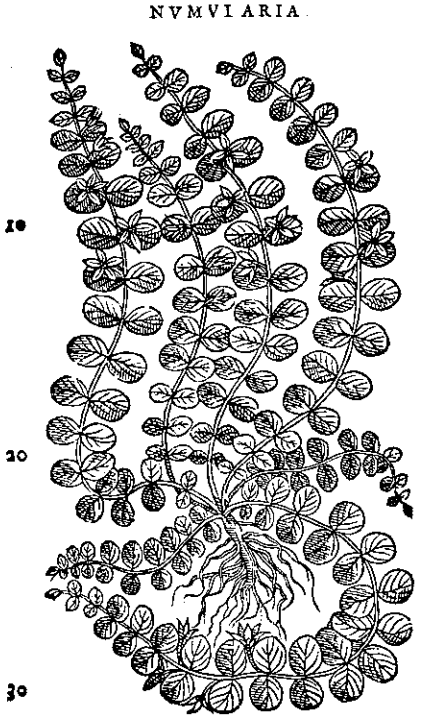
man to be his partner in dialogue With this term, so laden with religiosity, the inspired authors wish to bring us to understand that man is a spiritual being and, at the same time, corporeal, called by God to meet with Him in a binding dialogue.[13]

There is certainly something temerarious and audacious to this presentation of man as a religious being, for it seems rather utopian It is the Council Fathers who assure us that the monistic, religious view of every man really corresponds to God's project for man " The most sublime aspect of human dignity, " they write, consists of his vocation to communion with God From the moment of his birth man is invited to a dialogue with God. "[14]

Biblical anthropology thus takes us quite far from every dichotomous or trichotomous view of the human being Corporeal existence is intimately connected with man's religious being, and man must, then, enter into the dialoguing relationship with God with his body From this standpoint, the human body takes on such great value that respect for it is never sufficient The Council Fathers write in this regard, " it is not licit for man to disparage bodily life; rather, he is bound to consider his body to be good and worthy of honor, precisely because it has been created by God and destined for the resurrection on the last day It is, therefore, the very dignity of man which postulates that he should glorify God in his body and not allow it to become a slave to the perverse inclinations of the heart. "[15] The value of the body requires that man make every effort so as not to enslave it, precisely because the very dignity of man so demands. If we now wish to examine even more deeply the value of man's bodily existence, we must turn to St. Paul

2. The Existential Value of the Body

The Apostle of the Gentiles has an entirely special esteem for the human body, as, indeed, appears quite clearly from the use of the term to designate it. He never uses the word sarx ('flesh'), but always sôma ('body'). It is true that anyone not paying very close attention may get the impression that St Paul speaks several times of the body with disdain In fact, in the Letter to the Romans, for instance, he writes, " We well know that our old man was crucified with [Christ], so that the body of sin would be destroyed and we would no longer be slaves to sin " (*Rm* 6:6). The body is presented here in connection with sin, in the sense that the body originates sin and, for this reason, should be treated harshly. It is in this sense that we ought to understand what he says to the Christians in Corinth, drawing their attention to his way of living. " So that is how I run, not without a clear goal; and how I box, not wasting blows on air. I punish my body and bring it under control, to avoid any risk that, having acted as herald for others, I myself may be disqualified " (1 *Co* 9:26-27). The Apostle is evidently speaking of the body in a disparaging way here, a fact which seems to diminish his axiological conception of the body. I shall willingly leave a more exhaustive reply to those who are more expert on the subject; however, the difficulty loses much of its weight, and, indeed, enables the body to gain ground, when we bear in mind that Paul, in this and similar texts and contexts, uses the term sarx as a synonym for the body in opposition to the term pneuma ('spirit'). He himself clarifies this for us when he exhorts the Christians of Rome: " That is why you must not allow sin to reign over your mortal bodies and make you obey their desires; or give any parts of your bodies over to sin to be used as instruments of evil " (Rm 6:12-13). The Apostle speaks negatively about the body when he designates the flesh thereby, the tendency towards sin, which should rightly be destroyed, treated harshly, and forced into subjection. When, however, he denotes the sôma thereby, he then does nothing but exalt its value, precisely because it expresses the whole man in his vital, living reality, particularly in relation to Christ



2.1. Soma Is the Whole Man

Whoever seeks to present the Pauline concept of man-sôma in its most specific nuance should not say that man is a living body, but rather that he is an incarnate soul. " It ought not to be denied thereby that the Bible, in defining man as a "body," considers him from the standpoint of his sensitive reality and corporeality; the sôma qualifies the entire human person, taking it under the specific aspect of its bodily constitution "[16] St. Paul writes to the Corinthians about this vision of his in the following terms: " Do you not realize that your bodies are members of Christ? " (1 *Co* 6:15) And for the same reason he exhorts the Romans: " I urge you, then, brothers, remembering the mercies of God, to offer your bodies as a living sacrifice, dedicated and acceptable to God; this is your spiritual worship " (*Rm* 12:1).

The Apostle thus specifies the lifestyle of somatic man inasmuch as the latter is a priest who offers his own body, that is, his personal existence in its complex reality. This sacrificial offering is called " spiritual worship " by Paul, precisely because he wants to accentuate its interior nature To avoid misunderstandings, I note that our " certainly not intending to speak



of purely interior worship, since it concerns the whole person (the 'body') and existence, but rather of worship animated by the Holy Spirit. "[17] The Spirit of Christ, present in somatic man, gives man's bodily existence the value of worship which is pleasing to God. And it is precisely because of his presence that every man's mortal body will be raised. St. Paul has no doubts about this truth: " And if the Spirit of Him who raised Jesus from the dead dwells in you, He who has raised Christ from the dead will give life to your mortal bodies as well by means of his Spirit, who dwells in you " (*Rm* 8:11).

Now, and here we are touching upon a particular aspect of the value of the body, it is through the resurrection that somatic existence attains its cosmic value. Man as sôma is intimately united, linked, to the future parousia affecting the whole creation. The Apostle himself clarifies this for us when he writes to the Romans, " We are well aware that the whole creation, until this time, has been groaning in labor pains. And not only that: we, too, who have the first fruits of the Spirit, even we are groaning inside ourselves, waiting with eagerness for our bodies to be set free " (*Rm* 8:22-23). In effect, " the whole creation is waiting with eagerness for the children of God to be revealed. It was not for its own purposes that creation had frustration imposed upon it, but for the purposes of Him who imposed it, with the intention that the whole creation itself might be freed from its slavery to corruption and brought into the same glorious freedom as the children of God " (*Rm* 8:19-21).

2.2. Participation in the Glory (Doxa) of God

Man, precisely because he is sôma? that is, " body ", gives all the matter of creation not only an immanent meaning, but also, and above all, a transcendent value. The creation is, of course, at the service of man in its entirety, but it does not cease to exist; after having served man so that he can reach his integral humanization, creation will share in the transformation of the new earth and the advent of new heavens.

Comcerning this final vision of the whole creation on account of its link to the somatic existence of man, the Council Fathers note with absolute certainty, " we know from revelation that God is preparing a new abode and a new earth, where justice dwells and whose happiness will superabundantly satiate all the desires for peace which rise in the hearts of men. Then, with death overcome, the children of God will be raised again in Christ, and what was sown in infirmity and corruption will be clothed in incorruption; and, with charity and its works remaining, that whole reality, which God has created precisely for man, will be freed from slavery to vanity. "[18] In this apotheosis of the whole creation God manifests his doxa, his glory, and not just this, but He thus intends to reveal the greatness and the value of man's somatic existence. God has wanted man to know the glorification for which the human body and all the creation closely linked to it are destined. This apotheosis is even greater and more wonderful when we consider that it shines forth on the face of Christ, above all. He, indeed, is its source and summit, the Alpha and Omega; in being the perfect image of God, Christ shares the glory of God. St. Paul assures us that all of this is not a dream, but an indisputable reality: " It is God, who said, 'Let light shine out of darkness,' that has shone into our hearts to enlighten them with the knowledge of God's glory, the glory on the face of Christ " (2 *Co* 4:6).

At this point I want to insist on the fact that man, because he is sôma, must conceive himself to be solidary with the whole creation and know himself to be called to become part of the glorifying work of Christ. The well, nown exegete Kaesemann asserts in this regard, " Our body belongs to Christ, and, vice versa, Christ also belongs to our body. Our corporeality constitutes the relation to the world and the creatureliness of our existence on the basis of which he who is designated to be the lord of the world must put forward his right, if... he wishes to implement basileia over the universe. "[19] In this reference to basileia, to the Reign of Christ over the universe, somatic man is faced

with the possibility of achieving the full value of his body. In fact, " as believers we can be incorporated into the Kingdom of Christ...with all our possible and real relations to our world. Where this occurs, Christ penetrates the world with his promise and his claim, under the sign of the cross and with the power of his resurrection. "[20]

The glorifying penetration of the whole creation by Christ's resurrection takes place, then, through the conscious incorporation of bodily existence into the Kingdom of Christ. The human body is, therefore, the piece of the world which Christ demands, and it is the only one which man is in a position to give Him and with which he sings the praises of God (cf. 1 Co 6:20).

Accordingly, the value of the human body, in its relation to the world, depends on the measure in which man is prepared to give it to Christ. The aforementioned Kaesemann is not afraid to state, " Where we feel we should give Him more or less of the body, we deny Him the world. "[21] I add that not only do we deny Christ the possibility of penetrating the world with his glory, because we deny Him our bodily mediation, but, in doing so, we disappoint the hopes of the world, which is moaning in birthpangs. In refusing to respond to the value of our bodies we fail in our duty to humanize the world and our moral commitment to freeing it from the slavery of original, personal, and social sin.

From the foregoing it is extremely clear that alcoholism and drug addiction keep somatic existence from realizing itself. I would, therefore, like to conclude my talk with an appeal for a " No " in favor of a " Yes. " A " No " to the abuse of alcoholic beverages and to an enslaving recourse to drugs. A " Yes " to the moderate use of alcohol and a " Yes " to liberation from any kind of dependence on drugs. The motivations of the " No " in favor of the " Yes " are multiple: first of all, because one is thus enabled to lead a truly human life according to the demands of the unity of body and soul; an existence in relation to the world leading the whole creation to the summit is also permitted, inasmuch as the elements of the material world take on a voice to praise the Creator in freedom; finally, and above all, Christ is given the possibility of fulfilling his saving mission of penetrating the cosmos with doxa, the glory of God.

The " No " in favor of the " Yes " makes man capable of truly being what he is: the center and apex of all that exists on earth, and not just this, but such a " No " in favor of a " Yes " capacitates him increasingly to recognize that he has an incarnate spiritual soul which does not allow itself to be deceived by fallacious pretences and deluded by flight from situational and existential reality. In a word, may the value of the body lead man not to become a slave to alcohol and drugs, but to give himself freely to Christ so that He may offer God spiritual sacrifices through the mediation of the body and penetrate the whole creation with his glory.

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Notes

[1] Cf. F. Deluisa, M. Furlan, P. Menotti, " Cura degli alcolisti nell'ospedale di Udine, " Aggiornamenti sociali, 5/1990, p 411

[2] Cf. G. Perico, " Il problema dell'alcolismo, " Aggiornamenti sociali, 11/1989, p 689

[3] Cf. Ibid.

[4] Cf. G. Bonfiglio, in Alcolisti Anonimi (Rome: C.S.R., 1988), p. XV.

[5] I want to make clear that the question of the moment of death, as this problem is posed in our day, is not at issue. The Bible is concerned with the human being's vital principle in a monistic vision.

[6] Cf. H.W. Wolff, Anthropologie des AT, pp. 44-48; W. Schmidt, " Anthropologische Begriffe im AT, " in Evangelische Theologie, 24(1964), p. 390 ff.

[7] R. Koch, Teologia della Redenzione in Genesi 1-11 (Rome, 1967), p. 69.

[8] Cf. H.W. Wolff, Anthropologie des AT, pp. 52-53.

[9] D. Lijs, " La chair dans l'Ancien Testament, " Basar (Paris, 1967), p. 113.

[10] Ibid., pp. 30-31.

[11] M. Leko, " Il problema etico del corpo, " in Studia Moralia, XIII (1975), p. 76, note 51.

[12] Pastoral Constitution on the Church in the Contemporary World, Gaudium et Spes, no. 19; here after cited as GS.

[13] Cf. M. Leko, op. cit., pp. 80-81.

[14] GS, no. 19.

[15] Cf. GS, no. 14.

[16] M. Leko, op. cit., p. 86.

[17] V. Mannucci, " Commento della lettera ai Romani 12,1?, " in La Bibbia, parola di Dio scritta per noi, vol. 3 (Marietti), p. 610.

[18] GS, no. 39.

[19] E. Kaesemann, Prospettive paoline (Paideia, 1972), p. 39.

[20] Ibid., p. 165.

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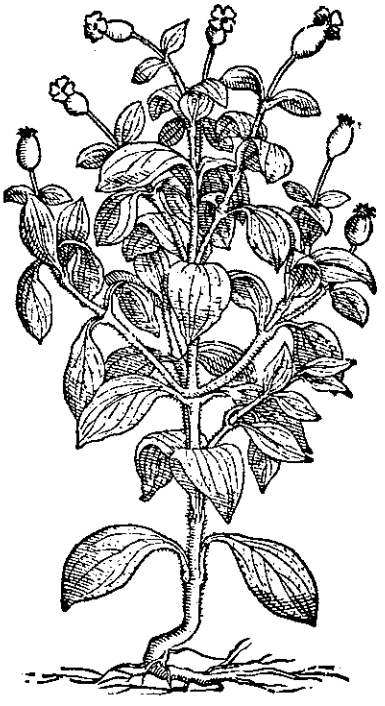


MICHEL SCHOOYANS

Drugs and Destruction of the Social Fabric

In this paper we aim to turn to the resources of contemporary philosophy to understand better the destructive effects of drugs on the social fabric. First of all, we shall make use of data supplied by current philosophical anthropology, especially within the personalist and existentialist currents; we shall then turn to the insights of political philosophy, which has reflected deeply on the phenomenon of totalitarianism.

Initially, we shall briefly present these two types of philosophical resources. We shall then show how they permit better understanding of the depraving effects of drugs on the inner personality, the family, and society. Let us make clear from the outset that the term drugs will be understood by us according to its more general meaning, involving natural or artificial substances which can modify the human psyche. Finally, we shall see that this contribution by philosophy reinforces the validity of certain therapeutical practices currently used to remedy the situations created by drugs. This last part will allow us to go beyond the philosophical perspective to take in the standpoint of faith as regards drugs.

The Contribution of Contemporary Philosophy

Anthropology

a) Personalism, to which the name of Mounier (1905-1950) is linked, sensitive to the double threat of fascism and communism, denounces every kind of totalitarianism at the expense of the person. It exalts the "personal vocation" of each one of us and explores the subjects of choice, freedom, and commitment. Man must free himself from anonymous existence, but is not, however, abandoned to himself. He is himself only in his openness to others and in sharing with others. It is others who awaken me to myself, whereas the mass renders men uniform. It is in contact with others that I perceive the moral demands which are in keeping with my singularity. These demands basically involve recognition of others in their singularity. The other, in relation to me, plays the role of a revealer: he teaches me my limits, but also my value. He interpellates me, wounds me, makes me grasp that I exist.

b) Existentialism stresses the fact that intersubjectivity is lived out in the world and history. Human consciousness is intentional: it is openness to the other part of itself. Hence reflections on the world and corporeality, on history and culture. Man has experienced precognitive understanding of nature and others. Originally, between man and the world, between man and his fellows, there is both similarity and extraneousness. Man does not introduce himself into nature "stupidly"; he does so through his work, as a "working being." He impresses his sign upon nature, humanizing it. This is why he recognizes both himself and others therein. Every literary work is thus directed at others, realized in honor of others. Recognition of this intention makes the work meaningful for whoever perceives it.

c) Personalism and existentialism have, then, stimulated vigilance of all the threats hanging over the person. Their analyses are continued in the reflection on totalitarianism carried out by contemporary political philosophy.

Political Philosophy

What has been emphasized by recent studies is that totalitarianism makes war on the self in all its dimensions: physical, psychological, and spiritual. It requires complete submission of individuals. The totalitarian State subjects marriage, procreation, the family, and education to very rigid control. The family, in particular, is subjected to severe surveillance, for it is within it that the bases of the child's personality are formed.

The totalitarian State inhibits personal capacity to judge and decide; it establishes a order of ideas; it blames and indoctrinates, annuls and reprograms. It assails intelligences, demobilizes their critical capacity, inculcates in them ready-made ideologies, and imprisons them in a "mental gulag." Since ideology is an opium of the intelligence and will, it removes from men all responsibility, withdrawing them from positive or negative sanctions for their behavior. It generalizes alienation. In these conditions the self holds itself in contempt. It loses its dignity before its eyes and may be inclined to destroy itself. In short, totalitarianism relies on the death instinct.

The Interest of These Contributions

The analysis of totalitarianism in political philosophy is of extreme

interest to us because it brings out the fragility and vulnerability of the self. The human personality constitutes itself slowly, and its integration is never totally ensured. It is exposed to wounds and destruction as well. The individual, who depends on others to be himself, is also at the mercy of others, who can go so far as to deprive him of himself. The other may come to occupy in me the "throne of God" and empty me of myself, "possess me" completely, make me a prisoner. He can kill my capacity for relationship. After having made me contemptible in my own eyes, he makes me hateful to others and makes others hateful to me. As my destroyer, totalitarianism is, then, for this very reason, a destroyer of the social fabric. Therefore, the analysis of totalitarianism suggests from this point on the existence of a real analogy between the effects produced by "totalitarian machines" and the effects produced by drugs.

On the other hand, philosophical anthropology rightly gives great importance to the potentialities of the self, stressing not only the effectiveness of its defense mechanisms, but also its capacities in taking the self in hand and cooperating in the "edification" of others. In this way, philosophical anthropology consolidates, on its specifically philosophical level, the validity of certain therapies currently used for both individuals and groups.

Drugs as Destructive

The Destruction of the Self

In studies on drugs one point is almost always stressed: the present or future addict finds himself confronted with a broken image of himself and with the bond of fusion with his mother. Drugs will later on fill up this fissure and incompleteness of the self "until the products effects, in turn, are exhausted for both neurophysiological and psychoemotional reasons."[1] This psychiatric approach stresses the fragility of the individual. Other authors proceeding from different disciplines confirm this interpretation. The (prospective) addict, who is quite often a teenager, does not love himself, is neither a lover nor loved. Pierced by a crisis in self-confidence, disparaging himself, the drug addict may be led to suicide.[2]

A response to his dissatisfaction-this is what the immature subject finds in drugs. "But the excessive pleasure itself makes its absence unbearable and feeds the need to find it again at once that is dependence. The addict can be compared to a suckling before his mother.

Drugs take on the function of need; the function of nourishment is essentially guaranteed by the marginalized group. From this moment on the parent may be led to regard dependence, and the marginalized life following from it is a fatality, a phenomenon undergone, or it must be admitted that dependence is seen by the addict as something desirable, reassuring, and sought after."[3]

Abandoned to himself by himself, then, the addict slowly destroys his self. He destroys his capacity for relation. In a short time he becomes incapable of establishing interpersonal relationships. Sometimes this destruction leads to paradoxical situations. In effect, it is relatively rare for an action to be brought against an addict; if he is condemned, he himself is the victim of the crime for which he is reproached.....

The Destruction of the Family

a) It is clearly ascertained that family pathologies predispose a child to early addiction. There is nothing astonishing about this, inasmuch as it is precisely in the network of family relationships that the child begins to form his personality and socialize.

However, if the family harboring problems is a spur to drug consumption, it is especially true that drugs are a factor destructive of the family.

Drugs quickly lead users to violate the norms of family life. This escalation has often been described: at first the addict steals at home, then elsewhere, to get money. He provokes incidents and may become violent. Through his behavior he marginalizes himself more and more from his family, whose shame he becomes. Since at the moment the addict falls into his hell his relatives experience a sensation of failure, they blame themselves. They become "parents of a drug addict." From that time on they harbor ill-will towards society, which has made possible this wreck or has been unable to do anything to prevent it.

We know what is then the most frequent result of this complex situation: an objective alliance is established between the addict and his circle. It is hell for the whole family, a fatal hell. At the end of this evolution the initial situation is in a certain sense reversed. The addict anticipates a modus vivendi, as tolerable as possible, with his family. It is now the family that will adapt its lifestyle to the addict who is its guest. Ever greater fear of disgrace prevents putting an end to this infernal escalation. The damage done by drugs in the family cell have been described often and, unfortunately, confirmed by numberless cases of which we are all aware. The dominant feature of this damage is that it involves the destruction of interpersonal relationships in the first human community, the one in which all the forms of natural solidarity primordially take shape.

b) It is, however, precisely to a doctor that we owe the fact of having opened the way to deeper reflection on the role of drugs in destroying the family. What we have just seen shows that drugs can transform the family environment into a hell, but the necessary consequence is not a threat to the existence of the family cell. Now, in showing a correlation between the pill and drugs, the doctor whose thought we shall summarize demonstrates that this union (pill-drugs) can result in the destruction of the family. This same doctor has been convicted for actions related to medical practice; he is now in jail, and this is the reason why, from a deontological standpoint, we cannot reveal his name. In 1991 what does this very expert physician assert?

"1960 was the year the contraceptive pill was put on the market, an event which was to upset the customs of the whole West. There was a real revolution in sexual behavior among young teenagers. From that point on we have witnessed an increase in drug use by the young.

Fear of pregnancy, that barrier to sexual relations outside the marriage bond, fell and disappeared. Relations among classmates and schoolmates multiplied.

"As for the inauspicious consequences of the pill, there is utter silence at every level. It must be realized that enormous economic interests are at stake." [*There follows a list of the risks of illness linked to hormonal contraception.*]

Let us look at the Belgian doctors instructions on the pill. The physician may prescribe the pill to women requesting it who are at least sixteen years old. Bound to professional secrecy, the doctor cannot inform parents of this prescription for their daughter.

Relations are thus authorized from age sixteen on, with the silent blessing of the medical profession, but.... For there is a 'but'.

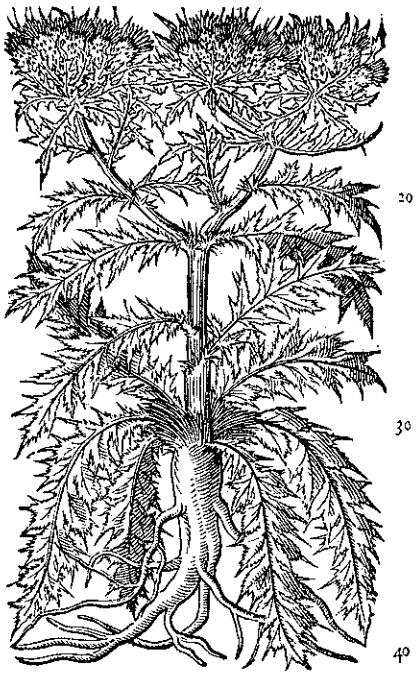
In Belgium, on the one hand, there is obligatory school attendance up to age eighteen, and, on the other, hotels are open to couples eighteen or over. Hence a twofold problem for the young: money and a place. The money? The only solution: stealing! Robbery in organized bands is easy in the city. There are large areas, parked cars, bag-snatching, and, occasionally, prostitution.

The place? Empty houses. It is pleasurable to live as squatters in the summer; in the winter, it is necessary to find a heated room. The parents' apartment while they are at work, an older companion's bedroom.... With several couples in the same room, exchanges are facilitated.... Quite often, with the help of alcohol, they abandon themselves to excesses. There are always some directing the game, instigating others to use stimulants, seeking to create an atmosphere. The non plus ultra is obviously heroin. The fascinating product for the sake of which people lie to their parents, steal, and engage in prostitution.

"Once the drug is experienced, they become enslaved to it."

The physician cited by us deals at length with some of the stages of this slavery: inhalation, injection, flash, "speedball," and sniffing, as well as the "complete physical and mental decadence" in which drug addicts die, "most of the time before age forty-five." And he concludes, "The pill seems, then, to be right at the origin of the spread of drug use, especially heroin, the drug par excellence which provokes euphoria and is considered an aphrodisiac."

From this study preliminary to the creation of a treatment center for addicts it results that the pill-drug union reinforces the effects of the pill on the family. We already know that the pill can directly or indirectly provoke harmful effects on the family cell. These effects, linked to the separation between procreation and the satisfaction of spouses, need not be set forth again at this time. The novelty which is brought out by our physician is the radicalization of the harmful effects of the pill flowing from the union between the pill and drugs. Drugs inflame the appeal to individual desire, multiplied and amplified. An individual enslaved to pleasure and the drugs which lead him to it becomes self-enclosed and is not really in a position to open himself freely to others or be fully "united" to a stable family community.



The Destruction of Society

First of all, we must now make an observation. Society, like the family, can push certain individuals to make use of drugs. Someone suffering deeply because he cannot change society may be tempted to change the self by taking refuge in drugs. Likewise, a society no longer respecting any norm or relativizing values eventually creates a climate favorable to drugs. From the report of the doctor we have cited it results that a sexually permissive society pushes people to use drugs. The same occurs when a society shows tolerance for drugs themselves: the more drugs are available in society, the more they are abused.

But if society contributes to increasing the number of drug addicts, for their part addicts constitute a fearful source of dissolution of the society in which they live.

In effect, addicts quickly lead to the violation of the norms of life in society. If we start from a social standpoint, the addict is a deviant who installs himself, so to speak, in deviance to go on taking drugs. But for this very reason he contributes to the spread of addiction. His deviant behavior as an addict becomes contagious and propagates itself, and propagation is rather swift as well: studies show that only nine months separate the time an individual is initiated from the moment he initiates another.[4]

In this way, the process of contagion quickly leads the addict to join a marginalized group, which closes itself off from the rest of society. The group the addict belongs to keeps its distance from natural communities, like the family, and from the work community. It remains aloof and marginalizes itself, and this marginalization leads the addict to feel rejected by the whole society. The groups of addicts create their own borders, have their own slang, and organize their own initiation ceremonies, carousels, and more or less sordid "smoking rooms." Some groups distinguish themselves by the use of one drug rather than another. All have their characteristic style, but all present the outlines of a "vicious circle." A circular movement is established between delinquency, if not outright crime, and drug use, since one must get into delinquency to buy drugs.

We note, however, that the borders of the group eventually yield. Studies teach us that closed circles, made up of artists or criminals, for instance, quickly open out in the end. Their practices are disseminated in the population as a whole. One of the most celebrated examples is that of cannabis. For an entire period its consumption was limited to the circle of jazz musicians. But it was starting from them that, with pop music, the use of this drug spread to Western youth.[5]

We all know what happens next: as drug use is disseminated, transgression becomes trivialized. The fact that an individual is an addict is no longer sufficient to regard him as deviant.

We shall conclude, then, that drugs are destructive of the social fabric because they destroy the norms of social conduct and pervert the perception of values.

Against Despair, Hope

We can draw some conclusions from what we have just said; some comforting, others disturbing. But whatever the difficulties may be, and particularly where there is a temptation to despair, we must cause hope to issue forth.



The Family Community

First of all, for "therapists" (understood in the broadest sense), it is comforting to observe that anthropological philosophy confirms the validity of some of their initiatives. In such an austere and failure-prone field as is the fight against drugs, this observation must be a motive for hope in the first place, for addicts and then for all who deal with them.

Indeed, from the foregoing it follows that man's pathological dependence on drugs is the expression of a bad use of freedom. The prevention of addiction thus requires the education of freedom and in freedom. Now, human freedom does not spin about in a void, but is exercised with a view towards certain signals, norms, and values. A society cannot live without reference to objective morality. Moral norms do not impede transgression, but men must know when they transgress the norms and when they flout values. Preventing drug addiction requires restoration of a greater morality in social life. The hedonism which has assailed our Western societies must therefore be challenged, since it spurs people towards drug use. But such prevention also requires man's acceptance of his human condition.

Drugs hurl man into unreality. This is escapism, "tripping," alienation: the addict is alien to the reality of the self, to the reality of his surroundings, to the reality of society. Preventing addiction thus requires here the conscious and free acceptance of our embodied state. The exercise of our responsibility in the world is irremediably rendered purposeless from the moment we escape mentally.

In the face of such abandonment, we must restore honorableness to our incarnate condition.

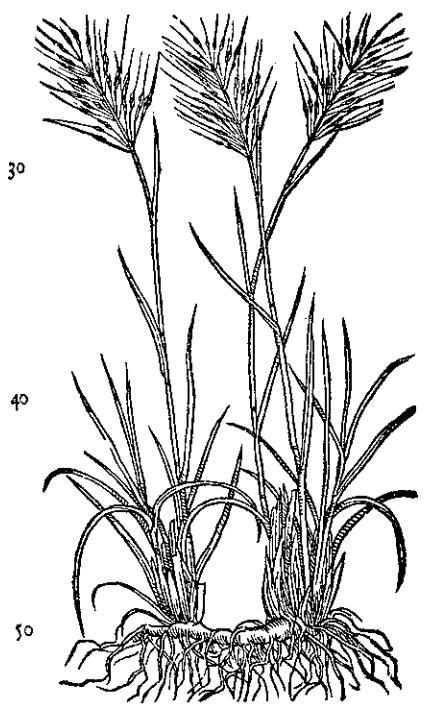
The anti-drug battle therefore requires the complex totality of the educational networks forming the personality and preparing it to exercise all of its responsibilities.

We must thus reassert the capital role of the family in preventing and overcoming addiction. In reality, if family pathology leads the child or adolescent to drug consumption, we can expect a solidly structured, love-filled family to be a bulwark against drug use. It is within the family that the first warning lights start to flash. Love will enable the members of the family cell to discern signals of unease. It has rightly been said that the family is a buoy for the individual manifesting inclinations towards drugs: it can weaken them. This means that, from a social standpoint, one of the priority measures to prevent drug addiction is to care for the family cell where this is necessary.

Finally, whatever the case may be and in spite of the sufferings involved, the family must forbid itself to become an accomplice of the addict who is its guest. This complicity can do nothing but hasten the decadence of the addict in question and drag the family community itself to its ruin.

The Political Community

a) The most important conclusions of our brief exposition, however, concern political and social



life. First of all, it is useless to say that society must defend itself energetically against drugs and cut down this epidemic. Laxity in this area always leads to failure, and laws must be more severe. We must nevertheless pose some very broad questions here. In the opinion of a senior officer who is an expert on these subjects, drugs currently constitute the greatest danger and threat to the security of human society, superior to AIDS, the liabilities weighing upon the ecosystem, and the risks of nuclear and bacteriological weapons. The philosophical elements we recalled at the outset and the brief analysis we moved on to allow us to grasp the validity of this statement.

b) The studies of political philosophy on totalitarianism show that the very goal of totalitarian regimes is the destruction of the self. The classical totalitarian regimes, communism, fascism, nazism, which have raged in our century all share this common characteristic: the will to destroy the self. To this end, they exploit man's inclination to subject himself to authority, since this subjection accelerates the break-up of the personality. These different regimes use identical means: education for hatred, destruction of the family, the struggle against intellectual and artistic life, a lack of responsibility for economic life, suppression of variety, the shipwreck of anonymity, the social cult of the leader, mental colonization of the self by ideology, etc.

From our analysis of drug addiction it results that the destruction of the self is obtained more swiftly and even more effectively through the use of drugs than through classical totalitarian machines.

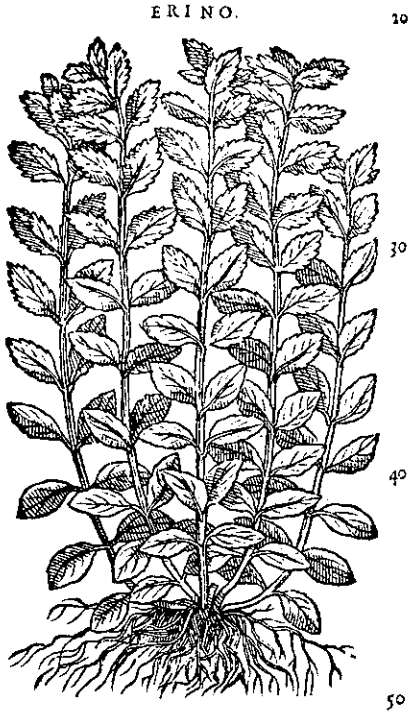
Now, classical totalitarian machines are always at the service of a Leader, a Party, or a Race this is well known or can be identified. The self is destroyed for the benefit of the Leader, the Party, the Race.

In the new machine destroying the self, wherein drugs are the key part, it is very hard to know for whose benefit the destruction of the self is implemented. But one thing is certain: whoever comes to control this machine will have within his reach a totalitarian power unprecedented in history. This power would be greatly multiplied if, after the domination or elimination of natural drugs, the latter were replaced by artificial or synthetic drugs already existing or to be created.

There is a precedent giving us a slight idea of what this political use of drugs might be The Opium War (1839-1842) was declared by the English because the Manchu government prohibited drugs in China while foreign merchants fraudulently imported opium from India In addition, this opium was used in China itself to corrupt officials.

Nothing prevents us from imagining that, in the colonial mentality of the time, imbued with a suspicious liberalism, drugs were seen not just as a source of profits, thanks to the trade deriving from them, but also as to a method to enfeeble whole populations, and particularly their leaders, to keep them under the imperial yoke more easily.

Beyond the developments we witness in some notorious drug trials, in a perspective of social and political morality, we must, then, ask ourselves some questions on drugs: Cui prodest? Who benefits from them? Are they are weapon of poor countries? Are they a weapon of rich countries? Against whom are they directed? By whom are they used?



In any event, drugs are truly one of leading threats to human society. They make available to whoever controls them an absolute weapon: the one which can destroy man's humanity; the one which can destroy not only individuals, but the very fabric of human community.

We hope to be able to limit the seriousness of this stake better during this exchange.

A Message of Hope

In spite of these gloomy prospects, the message proclaimed by the Church on drugs is, however, a message of hope. We could recall in this context the recent papal statements on the question and the initiatives adopted by the prestigious Department which has organized this International Conference. And yet we shall proceed from another perspective.

First of all, let us observe that we can from now on realize the decisive role played by Pope John Paul II in contesting totalitarianism in its concrete form under Soviet communism John Paul II's criticism is different from that of other Popes preceding him in a very revealing point. For instance, Pius XII reproached communism for its atheism. It is true that John Paul II also took up that criticism, but he deeply renewed it by starting from a philosophical and Christian anthropology which is especially close to his heart. Now, at the core of this anthropology, John Paul II attaches extraordinary importance to religious freedom. There is a specific and very profound reason for this. In fact, in the act of faith, man's personality opens up, because the most intimate personal relationship that I can establish is the one joining me in faith to my Creator and my Savior.

John Paul II well knows that totalitarianism applies itself to subjecting this religious freedom to oppression because it is personalizing and because, as personalizing, it nourishes the inner strength enabling every believer to resist totalitarian attempts destructive of the person. The example of Christians

in the Eastern countries illustrates and confirms that lived faith is the best vaccine against all ideological opiums, against all alienation emptying man of himself. For John Paul II, authentic religious life is, in the final analysis, the best antidote to all totalitarianism. Authentic religious life is the best leaven for liberation, not only individual, but also social and political.

It is easy to see how this teaching by John Paul II can be extended to drugs. Man, when freed by faith in God, enlightened in his being by the interpersonal relationship uniting him to God, will not seek the illusory overcoming of himself in drugs or a liberation synonymous with slavery in dependence or a nirvana marking his shipwreck in unreality through opium.

The Church, then, in regard to addicts, must proclaim in the name of God a word of faith and hope. Hoping against hope! That is why the care of addicts must be fully taken on by the Church community in the perspective of the new Evangelization.

May our Conference open us all to a new understanding of Jesus" decisive words: "Whatever you did to the least of my brothers you did unto me" (Mt 25:40).

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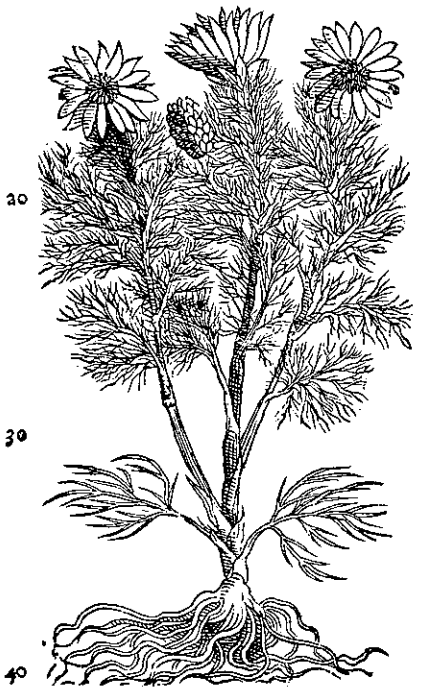
Notes

[1] Olivenstein, Evolution .., p. 104ff
[2] Soubrier, Conduites suicidaires. ., p. 118.
[3] Mormin, Familles..
[4] Bejerot, Un modèle. , p 88
[5] Ibid., p 89



References

TEXTES DU PAPE JEAN-PAUL II

Revenez au Christ, Discours aux jeunes, Stade « Capriles », Cochabamba (Bolivie), 11 mai 1988, dans la *Documentation catholique,* n° 1963 du 5 juin 1988, pp. 562-565.

L'aide des valeurs éthiques et spirituelles dans la lutte contre la drogue, Message à la Conférence internationale de Vienne, daté du 4 juin 1987, dans la Documentation catholique, n° 1946 du 6 septembre 1987, p. 834 et s.

Lutte contre l'esclavage de la drogue, Discours à Carthagène (Colombie), 6 juillet 1986, dans la *Documentation catholique,* n° 1986 du 10 août 1986, pp.756s.

La toxicomanie, maladie de l'esprit, Homélie au Centre italien de solidarité, 21 juin 1986, dans la *Documentation catholique,* n° 1925 du 5 octobre 1986, p.849 s.

Construire ensemble une grande patrie, Allocution aux paysans indiens à Cuzco, 3 février 1985, dans la *Documentation catholique,* n° 1892 du 17 mars 1985, pp. 341-344.

TRAVAUX UTILISEES

BEJEROT, NILS, « Un modèle épidémiologique des toxicomanies », dans G NAHAS (éd.), *Drogue et civilisation,* pp. 87-92.

DAVIDSON, FRANÇOISE et al., « Environnnement familial et social et antécédents psychologiques dans la genèse des toxicomanies », dans G. NAHAS (éd.). *Drogue et civilisation,* pp. 93-99

Drogue et civilisation: une prise de position, Document collectif publié dans G NAHAS (éd.), *Drogue et civilisation,* pp. 240-245

MORMIN, GEORGES, « Familles de toxicomanes: toxiques ou intoxiqués? », dans *Dialogue et Solidarité,* Bulletin de liaison de l'Union nationale familiale de lutte contre la toxicomanie, Paris, 2988, sans pagination.

MOURÃO CAVALCANTE, ANTÓNIO, *Universidade aberta do Nordeste,* publication périodique consacrée à la drogue, Fortaleza, Brésil, depuis 1989

NAHAS, GÉRARD , *Drogue et civilisation. Refus social ou acceptation. Entretiens de Reuil du 16 mars 1981,* Paris-Oxford, Pergamon Press, 1982.

OLIEVENSTEIN, CLAUDE, « Evolution de la toxicothérapie depuis dix ans », dans G. NAHAS (éd., *Drogue et civilisation,* pp. 100-107.

SCHOOYANS, MICHEL, *Démocratie et libération chrétienne,* Paris, Ed. Lethielleux, 2986.

SOUBRIER, JEAN-PIERRE, « Conduites suicidaires, Toxicomanie et Autodestruction », dans G. NAHAS (éd.), *Drogue et civilisation,* pp. 113-124.

VARENNE, G., *L'abus des drogues,* Bruxelles, Ed Dessart, 1971

WALTER, JEAN-JACQUES, *Les machines totalitaires,* Paris, Ed Danoël, 1982.

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How Epidemiology Helps Us to Grasp the Phenomenon of Drug Use

Epidemiology is the scientific discipline which studies the nature and spread of disease within and among populations. In the field of substance abuse it has been used to label a larger field of inquiry which incorporates most of the social science disciplines. In fact, drug use is not really a disease but a constellation of behaviors. It does not happen to a person inadvertently, like a disease, but rather it is a set of behaviors in which one participates knowingly and intentionally. Therefore, substance abuse is subject to study and understanding within all the disciplinary perspectives of other human behaviors—namely sociological, psychological, social psychological, anthropological, economic, and even political. Because the disease model, or approach, gained early favor in the substance abuse field, medical terminology tends to dominate the labeling of disciplines related to substance abuse; thus, we talk in terms of etiology, epidemiology, treatment, and prevention. In fact, this terminology has been used with regard to the study of the full range of abusable psychoactive substances which I will address in this paper, including those which are illegal to manufacture and distribute (e.g., marijuana, hallucinogens, cocaine, heroin), controlled psychotherapeutic drugs (e.g., barbiturates, amphetamines, tranquilizers, and opiate-type analgesics), and legal, noncontrolled drugs (e.g., alcohol and cigarettes).

I begin with this aside to make clear that while I am called an epidemiologist and the work I do is called epidemiology, I—like nearly all other "epidemiologists" in the substance abuse field—am a social scientist and bring the disciplinary perspectives of social science to understanding this set of phenomena. We deal with norms, motives, attitudes, values, beliefs, and lifestyles, as well as with the quantification and the interpersonal dynamics of the spread of these so-called diseases.

With this explication of the term epidemiology, I can say that the epidemiological study of substance use has yielded a very substantial body of knowledge, and in this paper I will attempt to share some of the key portions which seem of greatest relevance to the general theme of this conference. Those who would like to have a more comprehensive review of this field are referred to review articles by Johnston (1989), Kandel (1982), Kozel and Adams (1986), Moncher, Holden, and Schinke (1991), and United Nations Division of Narcotic Drugs (UNDND) (1987).

It is also important to say at the outset that what I am presenting here is heavily influenced by the North American experience. This is for two reasons. First, and most obvious, most of my life's work in this field has been conducted in North America. Second, and perhaps less obvious, a large portion of the world's scientific inquiry on drug epidemiology has taken place in North America because the world's most extensive epidemic of illicit drug use has been occurring there in recent decades. National and state governments have invested substantially in scientific inquiry with the hope of learning how to control and prevent such epidemics in the future. Because cultural context is extremely important to understanding drug abuse, I note this North American bias at the outset.

Legal Status of Drugs

First, let me note the somewhat arbitrary way in which drugs have tended to acquire different legal statuses, for the legal status of a drug has a great deal to do with the extent and nature of its use. Alcohol and tobacco acquired legal sanction in Western society long before all of the consequences of these drugs were known; attempts to render illegal the use of these drugs, which already were legal for an extended period, have not met with great success, as illustrated by America's attempt to change the legal status of alcohol during prohibition. This is partly true because large segments of the population have become users and see nothing morally wrong with use; in fact, many have come to think of it as a right. It is also true in part because infrastructures of legal manufacturers, distributors, advertisers, and retailers have emerged with a strong economic interest in perpetuating the status quo. For example, while the known health consequences of cigarettes should be enough to render the production and sale of them illegal, in most countries this is unlikely to happen in the near future because of a large standing population of dependent users and because of the enormous political and economic power of the industries involved in production and advertising. In addition, governments derive substantial tax revenues from the sale of cigarettes, creating another political motivation to maintain legality. In fact, it is largely because legalization is so difficult to reverse, once established, that I am opposed to the legalization of addi-

tional drugs like marijuana or cocaine. Cigarettes and alcohol are two legal, dependence-producing drugs which already take an enormous health toll—we hardly need any more drugs gaining legal status, which would begin to legitimate their use among a much larger proportion of the population.

To place the health consequences of these legal drugs in context, in the United States it is estimated that nearly 500,000 people die annually from the health consequences of smoking, including the consequences of passive exposure; that roughly 100,000 die as a result of the consequences of alcohol use; but that less than 10,000 people die as a consequence of all of the illegal drugs combined (Rice, Kelman, Miller, & Dunmeyer, 1990; U. S Department of Health and Human Services [DHHS], 1989). The magnitude of the loss of human life from tobacco and alcohol raises what should be enormous moral and ethical issues for those involved in the perpetuation of use, including manufacturers, distributors, governments, and the media. The fact is, however, they barely take notice. Rationalizations abound for behavior which clearly contributes to the addiction of children and the unnecessary loss of millions of lives. To my way of thinking, this may be the greatest immorality within the domain of drug abuse—the sanctimonious and hypocritical sanctioning of activities which cause massive death through the promotion of legal drug use.

One important domain of drug use resides in a gray area with regard to legality, namely the use of psychotherapeutic drugs outside of medical supervision. Indeed, in some countries this problem is more widespread than the use of drugs which are strictly illegal to manufacture or sell (UNDND, 1987; Kokkevi & Stefanis, 1991). In theory these drugs—like minor tranquilizers, sedatives, amphetamine and other stimulants, and opiate-type analgesics—are controlled in most countries. In some, including the Unites States, they are tightly controlled, making their purchase and sale without prescription clearly illegal. In other countries, however, they are controlled rather little or not at all, making the legality of their purchase and sale without prescription ambiguous. In a number of countries the buyer need simply ask the pharmacist for the drug and expect to receive it. In poorer countries, where physicians are in short supply and have only a few minutes for each patient, doctors sometimes give these drugs to patients with vague symptomatology simply to create the impression that something is being done. Given that such patients often can get continued access without further involvement by the doctor, the physician may well be launching a patient into a career of drug dependence. These psychotherapeutic drugs thus come to be misused by large numbers of people from all walks of life who have no intention of entering a drug subculture. The misuse of these drugs raises ethical issues for the governments that manufacture them and promote their sale abroad, for the health ministries that ostensibly are controlling the distribution and sale of these dangerous drugs, and for the medical profession itself. Because they are legally manufactured and distributed through legal channels, effective intervention is far more attainable, once awareness is raised and the political will is obtained, than is true for the illegal drugs. Manufacture and distribution can be controlled, advertising can be controlled or eliminated, laws and standards can be enforced among pharmacies, and physicians can be influenced to modify their prescribing practices.

Clearly, legalizing a drug has major implications for the extent to which it will spread and become established in the population for all of the reasons I have just mentioned, in addition to two others. Many people avoid using a drug not only because it is illegal —and for many doing things illegal is contrary to their self-image, as well as carrying the danger of apprehension—but because that illegality often leads to social disapproval. Put another way, when broadly accepted as reasonable, illegality contributes to and strengthens informal norms against use.

The Normative Status of Drugs

As in most other domains of human behavior, social norms play an important role in the domain of substance use. Legal status is not the only determinant of societal norms regarding drug use. As illustrated in the past decade by large shifts in the social acceptability of smoking in North America and Northern Europe, norms regarding the use of a legal drug can shift without any change in legal status (DHHS, 1989; Irgens-Jensen, 1986; Johnston, O'Malley, & Bachman, 1991a; National Institute on Drug Abuse [NIDA], 1991). These shifts in norms and behavior have resulted in large part from increasing awareness of the health consequences of smoking. Similarly, in North America there has been a considerable change in the predominant norms regarding the use of marijuana without any change in the legal status of that drug. Again, the norms for marijuana, which became more restrictive, appeared to change largely as a result of changed beliefs about the consequences of use (Johnston et al., 1991a), a subject to which we will return.

However, norms for acceptable behavior are not always uniform within a population. They may differ by age group, by socioeconomic or other social strata, and by segments of the population who differ as a function of their integration with society's normative structure more generally. These subgroup differences in norms, which incidentally may emerge and then fade away in different historical periods, are particularly important factors in the development and spread of epidemics.

Norms Among the Deviance-Prone. Let me begin by looking at different strata of the population based on their deviance-proneness, more generally defined than just in terms of drug abuse. Assuming that illegal drug use is contrary to the predominant social norms in the society, which is usually the case, illegal drug use is counter-normative. Therefore, those who are least observant of laws and social norms generally—that is, those who are most delinquent or crimeprone—are also going to be the least constrained by the *specific* norms regarding drugs. Further, they are

most likely to be in friendship circles with others who are likewise deviant and therefore least likely to try to reinforce the norms of the larger society. Society's normative constraints on drug use are least influential in deviant subpopulations who, in fact, may actually develop norms which are antithetical to mainstream norms as a symbol of protest and a statement of solidarity. It appears to be a constant in drug epidemiology that the highest rates of involvement in drug use are likely to be observed among the deviant or delinquent (e.g., Jessor & Jessor, 1977; Smith & Fogg, 1978); and while addictive use surely increases the users rate of criminal activity, there is evidence that involvement short of addiction may not (Johnston, O'Malley & Eveland, 1978). In other words, much of the association between illicit drug use and criminality may reflect the selection effect of the more deviant people being more likely to begin using drugs. It would be an overstatement, however, to say that drug use is only a specific manifestation of a more global orientation toward deviance. Osgood, Johnston, O'Malley, and Bachman (1988) have shown that a deviance-proneness construct can explain only a portion of the variance in the use of different drugs, and this author (Johnston, 1973) has shown that lifestyle factors unrelated with deviance explained use in an earlier historical period.

When the use of a drug such as heroin or crack cocaine is at relatively low levels, its use may be concentrated largely in the deviant subculture. In fact, it is probably in the context of deviant subcultures that most people think of illegal drug use. While that image may be accurate in some historical periods, it certainly would not have been accurate in the past two decades in North America, where, for more than a decade the majority of young people have used an illegal drug before leaving secondary school and the great majority (80%) have used one by their late twenties (Johnston et al., 1991a; NIDA, 1991).

Social Symbolism and Norms within Social Movements. That brings us to another type of stratification which can occur within a society and lead to a schism in social norms and ideology— that resulting from a social movement. During the late 1960's and early 1970's what has been referred to as a "counter-culture" emerged among American young people —largely in response to the war in Vietnam (Clark & Levine, 1971; Simmons & Winograd, 1966). Its core identity could be defined in terms of rebellion against many of the predominant norms and values of adult society, and its adherents generally exhibited a constellation of characteristics ranging from opposition to the war, differences in grooming and dressing habits, attitudes about work and school, language, music preferences, and drug use (Suchman, 1968). In this case a major social movement picked up on an evolving epidemic of psychoactive drug use and gave it great impetus by making drug use a symbolic part of the movement (National Commission on Marijuana and Other Drugs, 1972). Drugs like marijuana and LSD fit in very well, for their use at once facilitated the journey to the inner self; expressed disapproval and defiance of adult society; and provided a ritual expressing group solidarity symbolized by the passing the marijuana "joint." As can be seen, for symbolic as well as functional reasons, certain forms of drug use can become attached to a powerful social movement. The counter-culture movement was so powerful and the alienation so strong that norms counter to the predominant social norms emerged and legitimized illegal drug use for a whole generation of young people. Once torn by marijuana and LSD, the normative social fabric regarding drugs allowed a host of other drugs to pass through to social acceptability within the youth subculture. Unfortunately, one of the behaviors associated with being in the movement was the desire to traverse traditional boundaries generally, including national ones, and thus during this period many American young people brought themselves and their lifestyles to other parts of the world. Between their newfound mobility and the rapid coverage brought about by global mass media, what started as an epidemic on the North American continent soon became a worldwide pandemic.



There were, of course, indigenous drug problems in nearly all areas of the world, but this was something different in that young people in the mainstream adopted illegal behaviors and a sense of unity with a larger social movement they saw as moral and just. It was, after all, called the "Peace Movement."

This is an example of another way in which norms contrary to the predominant norms in the society may emerge for certain subgroups, permitting and facilitating the spread of a drug epidemic. In this case it was a social movement which gave most of the impetus, and it was among the younger age stratum in the population that the normative change occurred. Interestingly, it appears that the counter-culture syndrome was uncorrelated with being delinquent or deviance-prone in the traditional sense (Johnston, 1973). Each set of subgroup norms contributed somewhat independently to the evolution of the epidemic.

Drug Using Segments in the Population

Another way the population can be stratified is by previous drug ex-

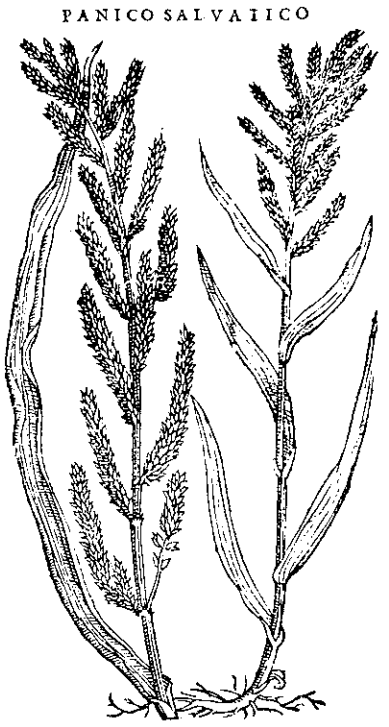
perience. Those who have previously used legal drugs are considerably more likely than others to use marijuana; those who use marijuana are more likely than others to use any of the illegal drugs; and those who use any one of the remaining illicit drugs are more likely to use still others (Johnston, 1973; Kandel 1975; Yamaguchi & Kandel, 1984). This means that the use of legal drugs has ramifications for illicit drug use. It also means that when a new drug is introduced onto the scene, it is initially most likely to be used by those already involved in illicit drug use

The reasons for these associations are in part normative; those who already have broken the law and violated social norms are most comfortable doing it again. However, distribution and friendship networks, and self-selection in terms of degree of risk-taking propensity undoubtedly also explain much of the association. Learning from prior rewarding drug experiences likely also plays a role, as well.

Social Class, Ethnicity, and Urbanicity

There are other ways to stratify the population which can be meaningful for explaining substance use: urbanicity, region, racial/ethnic composition, sex, social class, geographical mobility, and so on. For example, in industrialized societies it is not uncommon for the use of new drugs to begin in the largest cities— particularly among established drug users —and then to radiate outward to smaller cities and more rural areas (Hunt, 1974). For example, this pattern was observed for the spread of crack cocaine in the United States in the mid-1980's. But experimentation with crack in this mass-media culture spread very rapidly to most communities in all size strata (Johnston, O'Malley, & Bachman, 1991b) There is a mistaken tendency for people to assume that drug use is only an urban problem (e.g., Johnston et al., 1991a; Kokkevi & Stefanis, 1991), and also a mistaken tendency to think of it as only a problem of the lower classes. However, in the United States, surveys of students across all socioeconomic strata show very similar levels of marijuana and cocaine use. Furthermore, cocaine use in both North and South America first evolved among the very wealthy before spreading down the social ladder as availability increased and prices dropped (e.g., Johnston et al., 1991a).

People also often associate drug use with racial or ethnic minority status in the population, which usually is correlated with lower socioeconomic status Again, such beliefs may be mistaken, or at least exaggerated, for any of a number of reasons. The most obvious, perhaps, can be racial/ethnic prejudice; but there are other reasons, as well. For one, drug using behaviors and the resultant problems may be better hidden in the majority population; authorities may be dismissing or covering up such behaviors when it comes to their attention Another is that the open drug *trafficking* may be occurring to a disproportionate degree in poor, mostly minority neighborhoods, giving the impression that use is also concentrated there, even if most of the buyers come in from wealthier, majority neighborhoods. That is precisely the situation at the present time regarding the sale of crack cocaine in the United States. National surveys of students and the general population repeatedly show that drug use among African-American youth is actually lower than among youth in the majority white population (Bachman et al., 1991; NIDA, 1991).



The story of racial and ethnic differences may be a complex one, however, and has not been fully sorted out even in the United States, with its extensive epidemiological data systems. It could be that while African-Americans have lower rates of drug use in adolescence, they develop higher rates of use —and perhaps particularly chronic use— in their early adult years, as they face higher unemployment and become discouraged about their future opportunities. We know that while social motives and the desire to experiment are the primary reasons underlying much initial and moderate use, psychological coping motives pay a larger role for those who progress to more frequent use (Johnston & O'Malley, 1986).

So, for whatever reasons, as an epidemic of use of a drug grows, there are certain sectors of the population which are more susceptible to exhibiting the drug-use behavior—those who are more generally deviant, alienated young people, those in urban areas (during the early stages of the epidemic), and those already using other drugs. However, those at risk are not always confined to the segments of the population assumed to be at particular risk —the poor, minorities, and those in urban areas.

Containing an Epidemic

I have argued elsewhere that, once established, an epidemic has a certain forward momentum of its own (Johnston, 1991). Once it is underway, new birth cohorts of children grow up aware of the drugs and their psychoactive effects (one necessary condition for an epidemic), and older siblings and other older role models serve to encourage use among younger children. A supply system has been established to provide access (a second neces-



sary condition); the willingness to violate predominant social norms (a third necessary condition) has evolved and is passed on among youth; and some reassurance regarding the safety of the drugs (a fourth necessary condition) is provided by the older users who seem to be unharmed. Even today— well past the end of the Vietnam era and the counter-culture movement —the North American epidemic of illegal drug use continues, with the majority of young people at least having tried an illegal drug by their twenties.

The last condition I have hypothesized as necessary to the emergence of an epidemic, reassurance about the safety of the drug, may be the weak link in the perpetuation of its use. My colleagues and I have accumulated considerable evidence that the increasing belief that drug use carries considerable risk for the user has been largely responsible for bringing about a decline in use of certain drugs (Bachman, Johnston, O'Malley, & Humphrey, 1988; Johnston, 1982, 1985; Johnston et al., 1991a). We believe that this perceived risk has caused the decline in marijuana use beginning in 1980, and the decline in cocaine use beginning in 1986. The decline in other classes of drugs such as LSD, PCP, and crack cocaine also was probably due to an increase in perceived risk of harm —particularly physical and psychological harm to the user.[1] What seems clear for marijuana and cocaine is that the decline in use cannot be explained by a decrease in availability. During most of the period of decline for these two drugs their perceived availability to young people remained constant or increased. Changes in students' perceptions of the dangers of these drugs, however, are large and highly consistent with explaining the downward trends in use.

As an aside, the lack of decline in availability should be instructive to policy makers, since the failure to bring down these levels despite the expenditure of increasing billions of dollars annually illustrates the futility of the "supply-side strategy." In my country, as in most others, policy emphasis remains weighted toward supply reduction rather than the much more effective approach of demand reduction. The reason is largely political: hard line strategies seem to get more votes for politicians than prevention or treatment. The possibility that the electorate might be educated about the subject is seldom considered.

If we are correct in our interpretation that these downward trends are occurring because of changed beliefs about the dangers associated with drug use, then it is because of pragmatic health concerns not because of moral concerns. However, it may be that norms are also changing, very likely as a result of the perceived health consequences of these drugs, just as happened earlier for cigarettes. That is, people come to feel that doing something damaging to oneself, as well as to others, is morally wrong. By far the largest change in perceived danger has occurred for *regular* marijuana use; the proportion of American students in their last year of secondary school who disapprove of *regular* marijuana use is 91%. If disapproval is based purely on a moral judgement, one would expect that the great majority of students would also disapprove of experimentation with marijuana, however, in 1990 only 68% disapproved of marijuana experimentation.

Conclusion

It is fair to say that much of the work in drug epidemiology has concentrated on risk factors or susceptibility factors —both in terms of characteristics of individuals and of their immediate social environments. This body of work has generated a great many interesting findings about the correlates of drug use, only some of which I have presented here. It seems to me too little attention has been focused on the large fluctuations which occur over time in the absolute levels of use of particular drugs. The mix of risk factors in the population, like the number of delinquents or the number of school failures, may not change much over time, yet a massive epidemic of drug use may come and go. In this paper I have tried to shift that emphasis to the broader social and cultural factors which I think play a role in broad changes in these epidemics. Of particular relevance to this conference is the

fact that, while the decision to use drugs may involve moral and spiritual considerations, the way individuals see such decisions and their consequences is dramatically affected by the larger cultural, social, and legal context in which they must make them. This means that many of the ethical and moral questions in the realm of drug use reside with others in the society— the family, community, government, manufacturers, advertisers — indeed, all of us. The drug issue has been politicized like few other issues, has evoked political posturing and fingerpointing like few other issues, and has led to hypocrisy and self-forgiveness like few other issues, perhaps because it involves the fear of crime, a threat to an older generation's mores regarding drugs, a threat to established economic and political interests, and finally, a threat to our children. It is a test of our individual and our national characters that among these concerns we let the concerns for our children prevail, that we protect them from those who would encourage and facilitate their using illegal as well as legal drugs, and that we effectively educate them about the consequences of all drugs.

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[1] The declines in the use of a number of central nervous system depressants like tranquilizers, sedatives, and opiates may not be explainable in these terms. More likely, their decline reflects a decreased motivation to obtain their effects

References

BACHMAN, J. G., JOHNSTON, L. D., O'MALLEY, P. M., & HUMPHREY, R. H. (1988) Explaining the recent decline in marijuana use: Differentiating the effects of perceived risks, disapproval, and general lifestyle factors. *Journal of, Health and Social Behavior, 29*. 92-112.

BACHMAN, J. G., WALLACE, J. M. Jr. O'MALLEY, P.M., JOHNSTON, L. D., KURTH, C.L., & NEIGHBORS, H. W. (1991) Racial/ethnic differences in smoking, drinking, and illicit drug use among American high school seniors, 1976-1989. *American Journal of Public Health, 81,* 372-377.

CLARK, J. W., & LEVINE, E. L., (1971). Marijuana use, social discontent, and political alienation: A study of high school youth. *American Political Science Review. 65.* 120-130.

HUNT, L. G., (1974). Recent spread of heroin use in the United States. *American Journal of Public Health (Suppl.) 64 (1)*

IRGENS-JENSEN, O., (1983) *Changes in the use of drugs among Norwegian youth year by year from 1968 through 1983.* Int. Inst. Prevention Treatment Drug Dependence, 13th, Oslo, October 10-14. 1983.

JESSOR, R., & JESSOR, S.L., (1977) *Problem behavior and psychological development: A longitudinal study of, youth.* New York: Academic Press

JOHNSTON, L.D., (1973). *Drugs and American youth* Ann Arbor: Institute for Social Research.

JOHNSTON, L. D., (1982) A review and analysis of recent changes in marijuana use by American young people. In *Marijuana: The national impact on education* (pp. 8-13). New York: American Council on MariJuana.

JOHNSTON, L. D., (1985) The etiology and prevention of substance use: What can we learn from recent historical changes? In C. L. Jones & R. J. Battjes (Eds.), *Etiology of drug abuse Implications for prevention* (NIDA Research Monograph No. 56, pp. 155-177) Washington, DC: National Institute on Drug Abuse.

JOHNSTON, L.D., (1989). The survey technique in drug abuse assessment. *Bulletin on Narcotics, 41,* 29-40.

JOHNSTON, L. D., (1991). Toward a theory of drug epidemics. In R. L. Donohew, H. Sypher, & W. Bukoski (Eds.), *Persuasive communication and drug abuse prevention* (pp. 93- 132) Hillsdale, NJ: Lawrence Erlbaum.

JOHNSTON, L. D., & O'MALLEY, P.M., (1986). Why do the nation's students use drugs and alcohol? Self-reported reasons from nine national surveys. *Journal of, Drug Issues, 16,* 29-66.

JOHNSTON, L.D., O'MALLEY, P.M. & BACHMAN, J.G., (1991a). *Drug use among American high school seniors, college students and young adults, 1975-1990, Volume I: High school seniors* (DHHS Publication No. (ADM) 91-1813) and *Volume II College students and, young adults* (DHHS Publication No. (ADM) 91- 1835) 199 pp. and 168 pp., respectively.

JOHNSTON, L.D., O'MALLEY, P.M. & BACHMAN, J.G., (1991b). *Trends in drug use and associated, factors among American high school students, college students, and young adults. 1975-1989.* (Institute for Social Research: Ann Arbor, MI), 331 pp

JOHNSTON, L.D., O'MALLEY, P.M., & EVELAND, L.K. (1978). Drugs and delinquency: A search for causal connections. In D. G. Kandel (Ed.), *Longitudinal research on drug use: Empirical findings and methodological issues* Washington, DC: Hemisphere Publishing.

KANDEL, D. B., (1975). Stages in adolescent involvement in drug use. *Science, 190,* 912-914. (b)

KANDEL, D.B., (1982). Epidemiological and psychological perspective on adolescent drug use. *Journal of the American Academy of Child Psychiatry. 21 (4),* 328-347

KOKKEVI, A. & STEFANIS, C., (1991). The epidemiology of licit and illicit substance use among high school students in



Greece. *American Journal of Public Health, 81 (1)*, 48-52.

KOZEL, N. J., & ADAMS, E. H. (1986). Epidemiology of drug use: An overview. *Science, 234*, 970-974.

MONCHER, M.S., HOLDEN, G. W., & SCHINKE, S.P., (1991) Psychological correlates of adolescent substance abuse: A review of current etiological constructs. *International Journal of the Addictions, 26 (4)*, 377-414.

National Commission on Marijuana and Drug Abuse. (1972). *Marijuana: A signal of, misunderstanding (1st report)*. Washington, DC: U.S. Government Printing Office.

National Institute on Drug Abuse. (1991). *National Household Survey on Drug Abuse: Main Findings 1990*. (DHHS Publication No. (ADM) 91-1788) Rockville, MD: National Institute on Drug Abuse.

OSGOOD, D. W., JOHNSTON, L. D., O'MALLEY, P.M., & BACHMAN, J.G., (1988). The generality of deviance in late adolescence and early adulthood. *American Sociological Review, 53*, 81-93.

RICE, D.P., KELMAN, S., MILLER, L.S., & DUNMEYER, S., (1990) *The economic costs of alcohol and drug abuse and mental illness*. Washington, DC: U.S. Department of Health and Human Services (Publication No. ADM 90-1694).

SIMMONS, J. L., & WINOGRAD, B. (1966). *It's happening*. Santa Barbara, CA: Marc-Laird Publications.

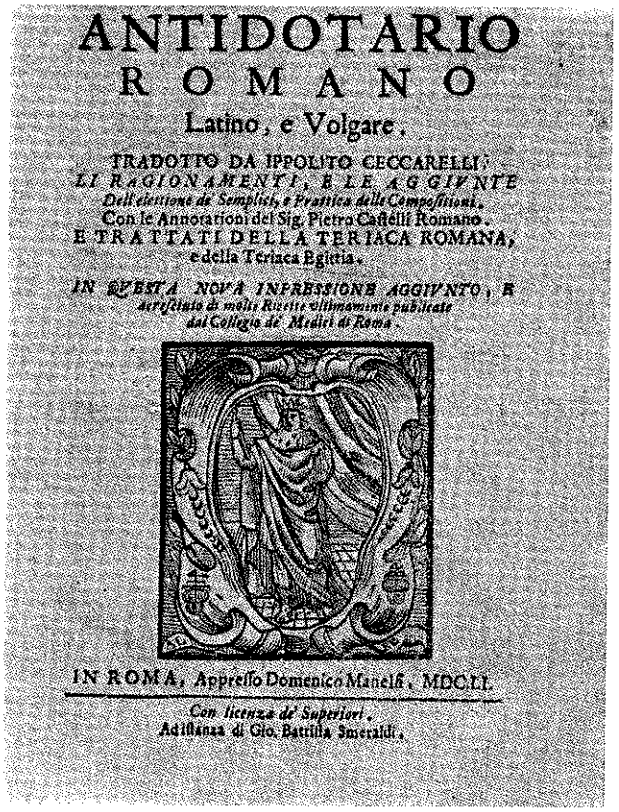
SMITH, G. M., & FOGG, C. P., (1978) Psychological predictors of early use, late use, and nonuse of marijuana among teenage students. In D. B. Kandel (Ed.), *Longitudinal research on drug use: Empirical, findings and methodological issues*. Washington, DC: Hemisphere Publishing.

SUCHMAN, E. A., (1968). The " hang-loose " ethic and the spirit of drug use. *Journal of Health and Social Behavior, 9*, 146-155.

United Nations Division of Narcotic Drugs (1987) Review of drug abuse measures to reduce the demand for illicit drugs by region. *Bulletin on Narcotics, 39 (1)*, 3-30.

U.S. Department of Health and Human Services (1989). *Reducing the Health Consequences of, Smoking: 25 Years of, Progress: A Report of, the Surgeon General*. U.S. Department of Health and Human Services, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health (DHHS Publication No. (CDC) 89-8411)

YAMAGUCHI, K., & KANDEL, D. B., (1984) Patterns of drug use from adolescence to young adulthood: II. Sequences of progression. *American Journal of Public Health, 74*, 668-672.


ANTIDOTARIO
ROMANO
Latino, e Volgare.
TRADOTTO DA IPPOLITO CECCARELLI.
LI RAGIONAMENTI, E LE AGGIVNTE
Della elettione de' Semplici, e Pratica della Compositioni.
Con le Annotationi del Sig. Pietro Castelli Romano.
E TRATTATI DELLA TERIACA ROMANA,
e della Terinca Egitia.
IN QVESTA NOVA IMPRESSIONE AGGIVNTO, E
accresciuto di molti Rimedij vltimamente publicati
dal Collegio de' Medici di Roma.
IN ROMA, Appresso Domenico Manelfi. MDCLI.
Con licenza de' Superiori.
Ad istanza di Gio. Battista Smeraldi.

VALENTIN POKROVSKY

Drugs: The Global Problem of Mankind

The use of some drugs (derivatives of poppies, coca, and other plants) was known way back in the 7th century, and the use of alcoholic beverages was known in ancient Greece. A drastic increase in the abuse of them began at the end of the 19th century But a definite global character of this phenomenon, as we see it, began in the 50s of our century.

Society's attitude towards drugs and their users is inadequate. It depends on time and changes with time (thus, in many countries smoking was encouraged and advertised). It is different in many cultures—from absolute condemnation and persecution to tolerance and even encouragement. Thus, the use of hashish as well as morphine in Russia meets with social denouncement, which leads to an underhand way of using it. In Central Asia hashish is sold openly in markets, and people laugh at you if you say that it is harmful. "Morphine is a narcotic," they say, "but this grass— a trifle we have always been using." In an absolutely different way the population of these two regions react to such drugs as tranquilizers.

Today a resident of a village district of Uzbekistan takes a tranquilizer with great caution, only if prescribed by a physician, being sure that it is a "strong medication." A resident of Moscow swallows a tablet of any benzodiazepine in apprehension of insomnia. There are actually many people who do so constantly.

Such cultural specificity undoubtedly is the reason that the frequency of hashish or tranquilizer abuse in different regions of our country is different. This illustration is given in order to show the tremendous role being played by cultural factors in the spreading of drug dependency.

Exact data as to the scale of addiction is difficult to receive in our country. Experts assume that the amount of addicts is equal to 0.1-0.2% of the population of the country, i.e. from 300,000 to 600,000 people. The number of people episodically using narcotics is estimated to be 1.5 million.

A poll in Moscow educational institutions has shown that narcotic substances were tried by 15-20% of school children, 15% of students. It is being assumed that in the students body alone there may be about 5 million who have tried a drug at least once during their life. Addiction penetrates into the army. A poll demonstrated that about 27% of them began using it in the army.

Motivations facilitating an acquaintance with drugs are similar in all countries. They may be a search for something new (so typical of adolescents), imitative behaviour, an unfavorable family, group environment, etc. A study convened in grammar and vocational schools in Moscow has shown that the reason for consuming drugs in 60% was "curiosity," and in 25% because there was nothing to do.

The rate of addiction, which increased immediately after the revolution of 1917, then went down and again began to rise at the end of the 60s. For a long time it was supposed that the main source of addiction was an unjustified prescription of drugs by physicians. This point of view lead to restrictions on the prescription of drugs, an introduction of strict control over their use

In recent years we have seen a significant reduction in the cultivation of poppies the for food and cosmetic industries, and a threefold reduction in the cultivation of hashish.

However, these measures did not lead to a reduction of addiction, and the number of addicts continued to grow.

In 1965 the amount of registered addicts and abusers was equal to 10.2 per 100,000 population, in 1984, 12.8. However, the number of people convicted for crimes due to illegal drug trafficking increased twofold from 1967 to 1975, and 4 times from 1977 to 1986. This pointed to a definite increase in tension at the beginning of the 80s. A leap in the indices occured in 1985, which coincided with severe restrictions on the sale of alcoholic beverages. The index per 100,000 population rose from 13.7 to 24.3. The number of drug consumers rose from 75,000 in 1984 to 130,000 in 1987.

Drug addiction has become a more serious problem with the AIDS emergency in the 80s.

It is common knowledge that drug abusers, especially intravenous drug abusers, now represent (from the point of HIV transmission) the most dangerous risk group.

More than 30% of AIDS cases in Europe and 25% in the USA were registered among drug abusers.

The AIDS problem is especially acute among drug abusers in Southern Europe. Thus 62% of AIDS cases in Italy and 53% of cases in Spain were registered among drug abusers.

Fortunately, we have not observed any HIV-infected drug abuser in the USSR up till now As of February 1, 1990 we had examined 499,019 blood sera samples of registered drug abusers but we didn't find any HIV-infection among them. But as drug abusers exist in our country, it is necessary to study the peculiarities of social orientation of this group and organize preventive work among them.

In our country drugs are administered in different ways: in tablets, by smoking, inhaling, or intravenous introduction.

Unlike drug abusers in other countries, addicts in our country use mostly domestic hand-made drugs. They may be divided into two groups, depending upon the initial product: 1) opium preparations (morphine-like action) and 2) ephedrine derivatives (psychostimulating action).

Drug addiction of a morphine type are most frequent in areas where poppies grow and are cultivated. The seasonal character of opiate consumption is noted.

Psychostimulating narcomania or drug addiction is observed everywhere and is not characterized by season prevalence, as the substance is obtained from product containing ephedrine acquired at drug stores.

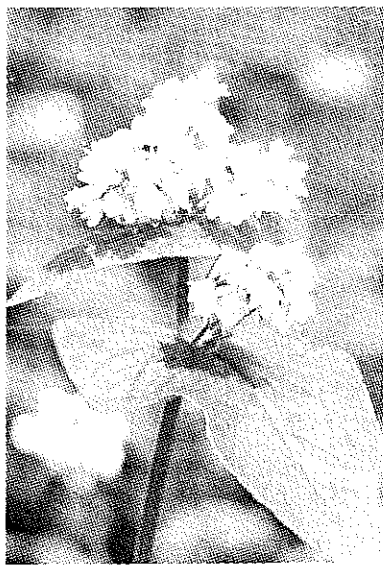
There are several varieties of drug, depending upon the "muljka" (purified with KMg04), "ephedron," "pervitin" (obtained and purified with the help of red phosphorus). After the administration of psychostimulating drugs an increase in sexual excitability is observed. After the administration of the drug this type of drug abusers often have sexual contacts For this category of male drug abusers the drawing of women and teenagers into drug abusing is characteristic, with the aim of having further sexual contacts.

There exists a conviction among those using "pervitin," and to some extent it is true, that this preparation possesses disinfecting properties, that it is baneful for bacteria and virus, since in the process of its production such substances as hydrochloric acid, red phosphorus, and KMg04 are used.

Addicts as a rule use drugs in a group. The members of such group run from 2 (with a husband and a wife) to 4-6 persons, and there are practically always the same people in the group. The agenda of drug administration is strictly observed: the first one to use the drug is usually the most experienced addict, who can decide upon the dose for the other, less experienced participants, or this one is the host of the appartment where the drug was prepared, and the last is the one with "bad views."

We may thus may explain the absence up till now of HIV-infected registered drug abusers in the USSR

However, it should be taken into account that up till recently the organization of the narcological health service in the USSR was such that addicts had to avoid it: bad living conditions in hospitals, absence of drug dependency, nonobservance of anonymity, registration in militia offices, sending of information to the places of work or study. As a result, only those who were registered as sick with narcomanias were screened for HIV infection, but the majority of those using drugs remain unrevealed and unscreened.



Against the background of the flourishing trafficking, especially poor looks the technico-material equipment of narcological health care establishments in our country, which have at their disposal about 2,000 beds for the treatment of patients with drug addiction or taxomania Most often they are situated at premises badly adjusted for the accomodation of such groups of patients and poorly supplied with medical equipment. The cost of one day of treatment at such a hospital is 1.5 times lower than at a general hospital. The demand for medicines was satisfied only by 40%

An increase in the demand for drugs and supplies and a rise in the gap between the demand and possibility of its compliance is motivated by a leap in prices. In the 30s 1 gr. of opium cost 25 copecks, in the 70s— 25 roubles; at present drug traffickers sell it for 500 roubles and more.

Today the USSR Ministry of Internal Affairs evaluates the size of the drug black market at more than 400 million roubles.

In this connection, the problem of dependency on psychopharmacological preparations is quite specific in our country. This group of medications brings a great blessing to thousands of patients. Suffice it to say that about 2% of the country's population are compelled to be under observation at a mental establishment. At present, approximately 60% of these patients (more than 1 million) are living at home through psychopharmacological treatment. Patients with lighter conditions, however, are also in need of systematic psychopharmacological treatment and quite often are treated by tranquilizers.

It should also be noted that these preparations are prescribed not only by psychiatrists and not only to patients of mental settings. About 20% of the population may be in need of tranquilizers and may receive the prescription from general practitioners or other professionals. That is why the requirement for this group of medications is 5-10 times higher and amounts to 35,000-70,000 kg annually. In 1988 (a period of relative economic stability) the country produced and bought about 15,000 kg of these preparations, or 40% of the required amount.

Therefore, the abuse of these preparations in our country occurs in conditions of harsh deficit. This circumstance creates another (rather important) aspect of the problem —a moral one. It consists of the fact that people using this preparation without needing it cause damage not only to themselves, but to those patients who are desperately in need of them.

For the period of 1984-1987 there was a sharp rise in intoxications by psychotropic drugs, including tranquilizers (by 76%), which was due to abuses of psychotropic drugs for euphorizing aims.

In conclusion to this part of the report, it should be noted that the recent events in the country give rise to great concern in relation to future "major addictions." The absence of political stability, inflation and a drop in the standard of living, economic chaos, a weakening of power—all these factors lead us to think with anxiety that the frequency of "major addictions" in the near future may drastically be increased.

Being a physician myself, I would like to say just a few words about purely medical problems of drug abuse. During the past 20 years certain studies have been conducted which permitted us to come nearer to an understanding of the mechanism of action on the organism of narcotic analgesics and other psychotropic drugs.

Many of the contemporary methods in the treatment of patients with mental disorders and addicts are based on the understanding of the role of the concrete system of biologically active substances in the pathogenesis of disorders, and the mechanism of action of psychotropic drugs on these systems.

We can say that now we are standing on the threshold of knowledge of drug addiction pathogenesis, which may bring drastic changes in methods of treatment.

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President of the Academy of Medical Sciences, USSR



JACEK MORAWSKI

Alcoholism: A Challenge to the United Nations

Introduction

Over the last decades, the social sensitivity to alcohol consumption and alcohol-related problems has been undoubtedly increasing. A growing concern expressed by governments towards these problems has been evident. A series of research institutes were founded, bilateral and regional scientific cooperation in that line was established. An increasing interest in alcohol-related problems as well as possibilities of varied preventive and repair actions were noted among international organizations, the World Health Organization and International Labour Office in particular.

In 1975, the Twenty-Eighth World Health Assembly requested the WHO General Director to direct special attention in the future program of WHO to the extent and seriousness of individual and social alcohol-related problems, concerning mainly public health. In 1979, the Thirty-Second World Health Assembly recognized alcohol problems as taking one of the leading places among serious health hazards and stimulated the member-states to undertake any steps directed at reducing alcohol consumption.

In 1989, upon application of Norway, the first time in history on such a level, the UN Economic and Social Council requested the Secretary General to promote studies on the adverse social consequences of alcohol consumption with the participation of the international group of experts. The meeting of the aforesaid group was held in Oslo in 1990, whose results made up the basis for the 45/134 Resolution of the General Assembly " On adverse social consequences of alcohol consumption. "

Recommendations of the Oslo Expert Meeting concern both national and international levels. They insist on including questions concerning the negative social consequences of alcohol use in the UN work programs and some events; the guiding principles for developmental social welfare policies and programs; initiating studies; organizing technical meetings; undertaking studies; providing technical advisory services with special reference to developing countries.

The aim of this paper is to consider need for further action, especially in the field of control policies.

1. Terminology

The term " alcoholism " is used in various meanings. In a broad sense alcoholism means consumption of alcoholic beverages which brings about harm to a drinking person and/or to the society. In a narrow sense, " alcoholism " stands for " alcoholic disease, " called in actual medical nomenclature alcohol dependence syndrome. In the present paper, the term " alcoholism " is used as a synonym of " alcohol-related problems, " which is the notional concept worked out in the 70s and popularized by the World Health Organization (1).

Alcohol-related problems (alcohol problems) involve any harmful

Fig. 1 - Alcohol consumption 1950-1988

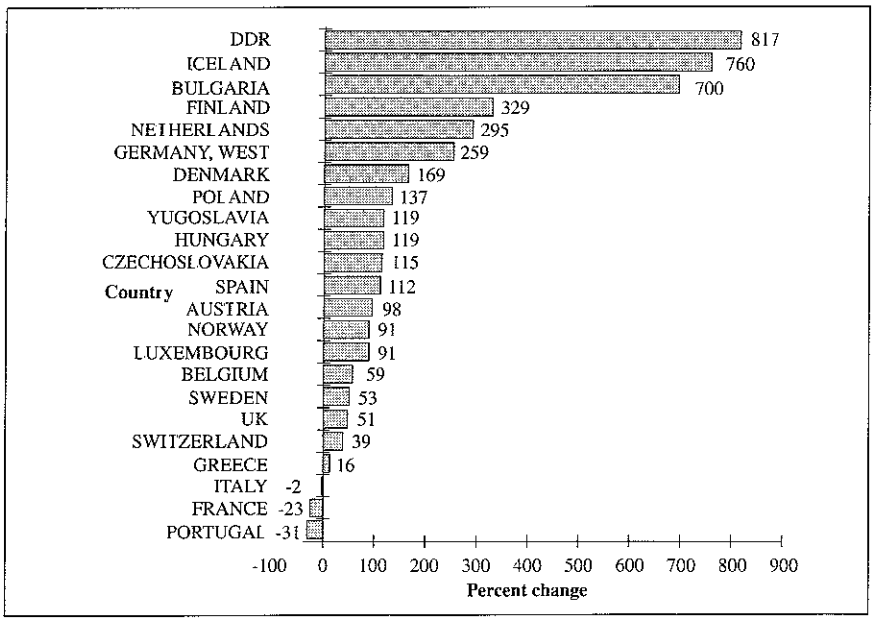


Table 1a - Problems relating to intoxication

Social problems	Psychological problems	Physical problems
Family arguments	Insomnia	Hepatitis
Domestic violence	Depression	Gastritis
Child neglect/abuse	Anxiety	Pancreatitis
Domestic accidents	Amnesia	Gout
Absenteeism from work	Attempted suicide	Cardiac arythmia
Accidents at work	Suicide	Accidents
Inefficient work		Trauma
Public drunkenness		Strokes
Public agression		Acute alcohol poisoning
Football hooliganism		Failure to take prescribed medication
Criminal damage		Impotence
Theft		Fetal damage
Burglary		
Assault		
Homicide		
Drinking and driving		
Hit-and-run accidents		
Road traffic accidents		
Sexually deviant acts		
Unwanted pregnancy		

Table 1b - Problems relating to regular heavy drinking

Social problems	Psychological problems	Physical problems
Family problems	Insomnia	Fatty liver
Divorce	Depression	Hepatitis
Homelessness	Anxiety	Cirrhosis
Work difficulties	Attempted suicide	Liver cancer
Unemployement	Suicide	Gastritis
Financial difficulties	Changes in personality	Pancreatitis
Fraud	Amnesia	Cancer of mouth, larynx, oesophagus
Vagrancy	Withdrawal fits	Cancer of breast (?)
Habitual convictions	Hallucinosis	Cancer of colon (?)
ewt Ha for drunkenness	Dementia	Nutritional deficiences
	Gambling	Obesity
	Misuse of other drugs	Diabetes
		Cardiomyopathy
		Raised blood pressure
		Strokes
		Brain damage
		Neuropathy
		Myopathy
		Sexual dysfunction
		Infertility
		Fetal damage
		Haemopoletic toxicity
		Reactions with other drugs

Source: 17

consequences of alcohol consumption. The ills may be of a physical, mental, and social nature; they also may be a result of acute episodes of drinking or consequences of prolonged drinking.

Among the problems related to alcohol consumption one may mention health impairment, including the alcohol dependence syndrome, i.e., a mental and usually physical state resulting from taking alcohol, characterized by behavioral and other responses that always include a compulsion to take alcohol —permanently or at times— in order to experience its psychic effects, and sometimes to avoid the discomfort of its absence. Though many problems are connected with the alcohol dependence syndrome, in the words of the expert report of 1980: " it should be pointed out, however, than there are many physical, mental, and social problems that are not necessarily related to dependence. Alcohol dependence, while prevalent and itself a matter for serious concern, constitutes only a small part of the total of alcohol-related problems " (2).

The concept of " alcohol-related problems " does not cover all the issues concerning the consequences of alcohol consumption. Particularly, it misses all positive effects attributed by drinking people to alcohol consumption. Among the responses obtained from population studies, the following positive aspects of alcohol consumption were mentioned: creating a sense of relaxation, satisfying a sense of taste, enhancing the significance of family and social celebrations, facilitating contacts with other people (3). These issues are not dealt with in the present paper. Nevertheless, taking into account issues of alcohol at large, the aspect of having pleasure in drinking should not be neglected.

Management of alcohol problems involves: prevention, treatment, rehabilitation, repairing of harm, and in some cases punishment as well. Among preventive measures which are essential for public health protection, there is an " alcohol control policy " involving legal, economic, and physical factors affecting the availability of alcohol for a human being.



2. Trends in Alcohol Consumption

Indices of using alcoholic beverages have been found in many countries from the very outset of cultural growth. Alcohol was used for magic, ritualistic, healing, and nutritive purposes. It was considered to be a means of easing tension and lowering the level of anxiety. Alcohol was used in a social context to strengthen community bonds and to add splendor to festivities. It was a symbol at last. This versatility of functions has made alcohol familiar to man for ages (4). An especially long-lasting tradition of alcohol consumption is typical for Europe, where it is most widely-spread.

Oscillation in alcohol intake in different societies is substantial and varies (in terms of 100% ethanol per capita) from 13.3 l in France to 0.2 l in Algeria. The lowest alcohol consumption in Europe is noted in Norway 4.2 l (data refer to the year 1988) (5).

Alcohol consumption varies in different periods of history. Since the Second World War the consumption of alcoholic beverages has expanded all over the world. Taking into consideration European countries in the years 1950-1988, consumption increased in a majority of them. The growth in consumption ranged from 12 or so to over 800 per cent. Only France, Portugal, and Italy, where alcohol consumption was the highest in 1950, in 1988 showed sings of slowing down by 22-31 per cent (5, 6).

In the eighties, in some countries a stabilization or even decline of alcohol consumption was noted. The greatest decline concerned the East European countries. Total alcohol consumption decreased in the years 1980-1988 in both Europe and North and South America and increased in Japan and some developing countries. Lack of reliable statistics makes it difficult to provide a full assessment of the situation in many developing countries. Increasing consumption trends in developing regions result mainly from the multinational expansion of the alcohol industry being limited in the highly developed states and searching thus for new ready markets.

In the last two years, expansion

Table 2. Economic costs to society of alcohol abuse and alcoholism, USA 1983

Types of cost	Cost ($ millions)
Core costs	
Direct	
Treatment[1]	13,457
Health support services	1,549
Indirect	
Mortality[2]	18,151
Reduced productivity	65,582
Lost employment	5,323
Other related costs	
Direct	
Motor vehicle crashes	2,697
Crime	2,631
Social welfare administration	49
Other	3,673
Indirect	
Victims of crime	194
Incarceration	2,979
Motor vehicle crashes	590
Total	$116,875

Source: Harwood et al. 1985
[1] For alcohol abuse and alcoholism, liver cirrhosis, other illnesses, motor vehicle crashes, and other injuries.
[2] At 6 percent discount rate.

of alcohol syndicates is also a menace to the newly formed democracies in Middle and Eastern Europe. In Poland in 1990, for example, alcohol use probably reached the highest level in the last century, i.e., 9 liters p.c.

In the last decades, changes in the level of alcohol consumption as well as changes in drinking patterns can be observed. There follows homogenization of drinking patterns, beverage preferences, as well as reduction of regional and cultural diversification of alcohol use. Studies on drinking habits indicate an increase in frequency of drinking and versatility of conducive occasions, often associated with reduction of the amount of alcohol consumed at any given moment. Changes in drinking patterns are usually of an additive nature. New patterns of drinking do not replace traditional ones, but contribute to them, constitute a common international model of drinking (7).

In the sixties and seventies drinking became more and more popular among youth and females. The number of abstainers was decreasing, the age of alcohol initiation being lowered. In the eighties, in some countries these trends showed signs of slowing down (5, 6).

Epidemiological data suggest an increase of combined or substitutive use of alcohol and other legal or illegal psychoactive substances, including a lot of those prescribed by doctors.

3. Alcohol-related problems

Available data indicate that alcohol-related problems are one of the most substantial health dangers threatening the contemporary world. Using alcohol is evidently connected with risk, as it may lead to a social problem or to slight or serious medical trouble. This depends on many factors, among which attention should be drawn to the amount of alcohol consumption, circumstances of its use, interaction with individual characteristics and that of environment.

Problems related to alcohol can

Table 3. Self-reported alcohol related problems (during last 12 months) in different consumption groups in Norway

	Percent reporting				The group's share of the problem		
Consumption (litres/year)	% of sample	Absent work	Fight	Accident	Absent work	Fight	Accident
Low (0-5)	85	3	1	1	46	30	27
Moderate (5-10)	10	12	8	4	22	26	23
High (10-30)	4	27	19	10	24	30	27
Very high (over 30)	1	50	43	43	9	14	23
All	100	6	3	2	100	100	100

Source: 14.

SFERRA CAVALLO.



be perceived at various levels, such as harm to a drinker, his family, and the society at large.

Individual alcohol problems are concerned with impact on the organism. Alcohol has a depressive influence on the central nervous system with substantial differences in its relationship to the respective structures of the brain. Changes in functioning of superior and most recent structures in terms of evolution occur earliest. It may lead to disintegration of mental actions, psychomotor dysfunction, and in consequence to wrong decisions. Sometimes aggressiveness and a tendency to undertake excessive risk may appear. Greater doses of alcohol may cause acute intoxication, calling for specialized medical intervention. Mortality due to acute ethanol intoxication ranges among hospitalized patients from 0.7%-2.5% and is tripled if alcohol is consumed together with other substances. Acute ethanol intoxication is one of the essential causes of death in the European countries with distilled spirits prevaling in the structure of alcohol consumption, e.g., in Poland, ca. 1.5 thousand people a year die from acute ethanol intoxication. That figure is approaching the number of fatal casualties in road accidents caused by drivers with measurable BAC.

Alcohol problems may concern internal organs. This consists not only of direct toxicity of ethyl alcohol but also in high toxicity of its metabolites. In particular acetaldehyde is ten times more toxic than ethanol and plays a main role in destruction of tissues and impairment of metabolic processes. Hazardous use of alcohol may lead to injury of alimentary tract, that of mucous membranes, pancreatitis, fatty degeneration of the liver, cirrhosis of the liver. It has been proved that cirrhosis is connected with a direct toxic impact of alcohol and its metabolites and not only with hypovitaminosis. Relative risk of death due to alcoholic cirrhosis (as compared to nondrinkers) is five times higher in persons who for a long time have been drinking 80-100 g of alcohol per day and as much as 25-times higher in heavy drinkers consuming above 160 g of alcohol per day.

Other health problems related to alcohol which are only mentioned herein are: arterial hypertension, with its consequences in the form of cerebral stroke, carcinogenic impact (it has been proved that use of alcohol 10-times increases risk of cancer of esophagus, larynx, and trachea), adverse impact on course of pregnancy and fetus (including Fetal Alcohol Syndrome), impairment of central nervous system. The group of excessive drinkers is vulnerable to alcohol dependence syndrome, 5% of them suffering from alcoholic psychoses. Persons dependent on alcohol become 2.5-11 times more often victims of accidents, and 3-9 times more often they commit suicides. Their lifetime is by 10-22 years shorter than expected. According to the American data, at least 3% of all deaths are related to alcohol.

Excess male mortality rates, as compared to that of females, is a phenomenon common for many countries. Considerable predominance of alcohol and tobacco consumption among males is the most frequent explanation of the status quo.

Alcohol abuse brings about damage to family functions often preceding individual problems or those in other fields of social life. A sample survey indicates that ca 20% of children under school age in various societies are brought up in families with alcoholic problems (8). In extreme cases, alcohol abuse by one or both of the parents leads to drastic lowering of the family living standard, to distress and poverty. Alcohol abuse is one of the leading causes of family disintegration. In some countries above 25% of divorces are related to drunken behavior (13). A state of co-dependence which may have a bearing on the future of children and be transmitted to subsequent generations occurs among alcoholic's relatives.

Alcohol-related problems which affect the society at large are numerous. Causing public disturbances may involve aggressive deeds, rowdy behavior, damage to property, accidents at workplaces and in the settings outside, creating situations conducive to misdemeanors (favoritism, informal groups of drinkers). 20% of road accidents on average are connected with using alcohol by drivers. In Sweden, where legal provisions are very re-

strictive and there is no tradition of driving a vehicle after using alcohol, one fatal accident a year corresponds to 5.150 vehicles, whereas in Germany to 2.600 and in Yugoslavia 700 vehicles.

Economic costs of the use of alcohol are high. In the USA they accounted for 117 billion US dollars in 1983.

In the Soviet Union it was estimated that arresting alcohol use in the workplaces might bring a 10% increase in productivity (9) It should be noted, however, that assessment of costs caused by the use of alcohol is incomplete as a rule. It does not embrace social and emotional costs such as suffering of relatives and friends of people abusing alcohol, increased costs of taking care of children with alcoholic impairment, and others (10). Due to alcohol abuse, societies may become markedly impoverished. Besides the costs of removing damage, attention should be paid to the fact that expenditure on alcoholic beverages ranges as high as 12% of consumers' budgets in some countries. Furthermore, for alcohol production, a considerable quantity of agricultural products (corn, potatoes, fruit) is used.

On the other hand, alcoholic beverages bring about enormous gains to producers, sellers, and institutions associated with the liquor trade, e.g., the advertising industry, mass media, tourism and state budgets as well. The connection of alcoholic problems with culture, economics, politics, and the administrative apparatus makes implementation of the means of control highly complicated. Another barrier stems from the fact that the alcohol industry and its strategies are nowadays, to a large exten, of a multinational character.

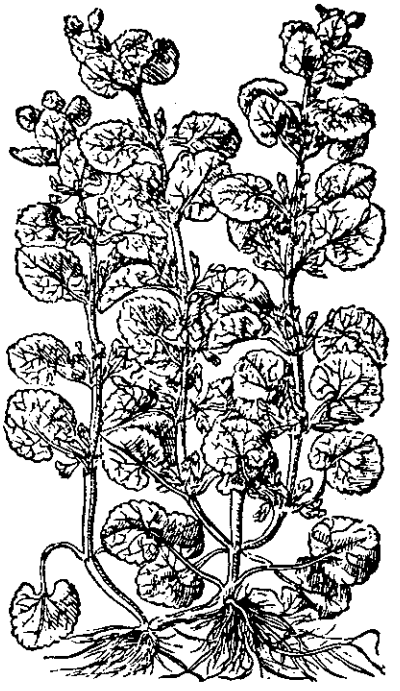
4. Relation of alcohol use to problems

Availability of alcohol is one of the main conditions of occurrence of alcohol-related problems.

Detailed analysis of many research results gathered from various countries and carried out by an international team supports the above conclusion: changes in general alcoholic beverages consumption have an impact on public health in a given society; the restricting of alcohol availability may limit alcohol use and alcohol-related problems; measures of control of alcohol availability are thus the public health issue (11). The analysis in question proved the principle formulated by a French researcher, Ledermann, that the number of heavy drinkers (alcoholics) in a given society depends on the level of average consumption and, as the consumption increases, the number of drinkers rises at a quicker rate than the growth of alcohol consumption. In accordance with that, expansion of alcohol-related problems is markedly quicker than the increase in average consumption.

This model is not purely theoretical. In many countries, including Poland, a covariation is observed between average alcohol consumption and the indices of health damage. Analysis of regression applied to the data which have been gathered in Poland since the mid-fifties makes it possible to assess changes of various problems at varying levels of alcohol consumption (12). Decrease of mean consumption by ca 2 liters of distilled alcohol should bring approximately double decline of the incidence of alcohol psychoses; 30 per cent decline of death due to cirrhosis of the liver; reduction of the number of alcohol poisoning deaths by ca 40 per cent. Growth of alcohol consumption by the same value should give rise to 50 per cent more of first-time hospital admissions due to alcoholic psychoses, 60 per cent more for death caused by alcohol poisoning; 25 per cent more cases of death due to cirrhosis of the liver (13).

Still one phenomenon should be pointed out. Distribution of alcoholic consumption in the population is of log-normal or hyperbolic nature, as has been determined by empirical studies. The distribution shows that a majority of drinkers consume small quantities of alcohol, whereas a small fraction of the population (5-10%) belongs to heavy drinkers. Among the majority of light drinkers, the risk of alcohol-related problems is not high, but generally they are responsible for lots of problems besetting society. By no means are they alcohol dependent in a clinical sense. Their problems may arise from acute al-





cohol intoxication or even from using small doses of alcohol within the socially accepted limits— however, when practiced in high-risk situations (for example workplace, driving a vehicle)

The fact that most problems are caused by persons drinking in a moderate way is proved by numerous studies. Kreitman called this phenomenon a preventive paradox (15) It appears that even considerable reduction of the alcohol dependence prevalence would not lead to substantial reduction of the indices of alcohol problems, unless those problems are reduced among moderate drinkers. It is evident, therefore, that drinking, in general, and not only excessive or heavy drinking, should be the target for prevention. Consequently, an effective response requires collaboration by many sectors of government and cannot be considered as a matter for health and welfare ministries only.

This model of distribution of alcohol consumption is modified by sociocultural factors. Some data indicate that curves of consumption with average quantity being similar may differ in curtosis or degree of flatness. The structure of alcohol problems may also be different In France, which is a country of high alcohol consumption, somatic health issues, particularly concerning cirrhosis of the liver, are predominant. It is also the case of Italy, where somatic troubles are underlying the alcohol problems. On the contrary, in Poland, with a relatively low alcohol consumption as compared with other European countries, behavioral problems, such as public drunkenness, aggression, and mental disorders are predominant. These differences are derive from drinking habits and the degree of integration of societal norms controlling the alcohol consumption.

In recent years, much attention was devoted to studies on animals to specify genetic or biological causes of alcoholism, biochemical markers, and vulnerability to alcoholism. There is an attempt at making far-reaching conclusions on the basis of such research, transferring debates on alcohol problems to a biological plane. The investigations focused on heredity undoubtedly prove the differentiated vulnerability of people to developing of alcohol problems. It is essential, however, that this vulnerability becomes much more visible in a " wet " environment. The higher alcohol consumption is in a given society, the greater will be the number of people with actual alcohol problems in a vulnerable group. That's why biological studies cannot replace the issue of control of alcohol availability.

5. International action needed

It seems to be unquestionable that prevalence of alcohol consumption, growth of its economic role, and extent of expansion of the alcohol-related problems should prompt enterprising action at the international level.

There is no doubt that the UN should continue its interest in alcohol-related matters and that in its working programs a similar level of attention should be paid to legal substances of abuse as well as to illegal drugs. Thus, a project submitted once to the League of Nations and referring to international studies on the alcohol-related problems, might be accomplished (16).

It could facilitate concerted action on both international and national levels and help to diminish many health, social, and law-enforcement problems we are today confronted with.

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References

1 EDWARDS G., GROSS MM., KELLER M., MOSER J, ROOM R (eds.): Alcohol-related disabilities. WHO Offset Publication No 32 WHO, Geneva, 1977

2. *Problems related to alcohol consumption. Report of a WHO Expert Committee.* Technical Report Series 650, WHO, Geneva, 1980, p. 17.

3 HAUGE R., IRGEN-JENSEN O : *The experiencing of positive consequences of drinking in four Scandinavian countries.* British Journal of Addiction, 1990, 85, 645-653.

4. WALD I: *Introduction.* In: *Alcohol-related social and health problems.* State Scientific Publishers, Warsaw, 1986, p. 8 In Polish.

5 *World Drink Trends*. 1990 Edition NTC Publications Ltd. Henley-on-Thames, Oxfordshire, UK.

6 *International Statistics on Alcoholic Beverages Production, Trade and Consumption 1950-1972*. Finnish Foundation for Alcohol Studies, Vol 27, Forssa 1977

7 MOSHER J.F.: *International trends in alcohol consumption, alcohol-related problems and alcohol control policies*. A report of the 18-Country Ansvar Seminar Conducted in Vienna, Austria, in June 1981. In: ARMYR G., ELMER A., HERZ U.: *Alcohol in the World of the 80s*. Stockholm, Sober Forlags, 1982, pp 201-208

8 GRUDZIAK-SOBCZYL E.: *Identifikation von Kindern von alkoholikern*. Drogalkohol (Lausanne). 1990, 14, pp 41-48

9 STRUMILIN S., SONIN M.J.: *Economics and alcoholism*. Ekonomika i Organizacja Promyszlennoj Produkcji (EKO), Nowosibirsk, 1974, No 4. In Russian

10 MARIE CHOQUET: *Discussion of Dr Morawski's, Dr Moskalewicz's and Professor Wald's paper*. In: *Expert Meeting on Negative Social Consequences of Alcohol Use*, Oslo 27-31 August 1990 Oslo 1991, pp 129-139.

11 BRUUN K., EDWARDS F., LUMIO M. et al.: *Alcohol control policies in a public health perspective. The Finnish Foundation of Alcohol Studies* Vol. 25, Forssa 1975

12 WALD I, JAROSZEWSKI Z: *Alcohol Consumption and Alcoholic Psychoses in Poland* Journal of Studies on Alcohol, Vol 44, No. 6, 1983, pp. 1040-1048

13 WALD I., MORAWSKI J., MOSKALEWICZ J., SZYDLOWSKA T: *The Second Report on Alcohol Policy*, Warzawa 1990, p 77. In Polish.

14 SKOG OJ: *The prevention of alcoholism and drinking problems— who are the target groups?* In: *Expert Meeting on Negative Social Consequences of Alcohol Use*, Oslo 27-31 August 1990 Oslo 1991, pp 200-220.

15 KREITMAN N: *Alcohol Dependence and the Preventive Paradox* British Journal of Addiction, 1986, 81, pp 353-363.

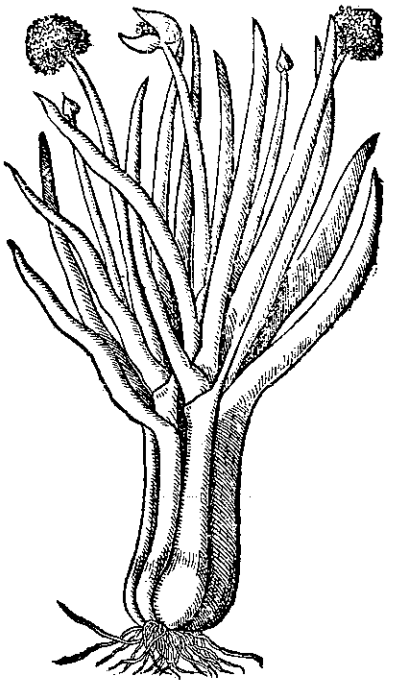
16. CHODZKO W: *World-wide Action Against Alcoholism in the Period Between the Two World Wars*. Annales Universitatis Mariae Curie-Sklodowska. Lublin-Polonia, 1948, Vol. 3, 2, pp. 83-94. In Polish.

17. ANDERSON P: *Management of drinking problems*. WHO Regional Publications, European Series, No 32, Copenhagen 1990

18. HARWOOD HJ, KRISTIANSEN P., RACHAL JV.: *Social and economic costs of alcohol abuse and alcoholism*. Issue report No. 2, Research Triangle Park, Research Triangle Institute, 1985.

19. *Expert Meeting on Negative Social Consequences of Alcohol Use*, Oslo 27-31 August 1990. Oslo 1991, pp 200-220.

CIPOLLA SETTILE



HELGE J KOLSTAD

Alcoholism: Personal Morality, and Popular Movements

Introduction

There is no simple or instant solution to substance abuse. We must, rather, try to knit together a comprehensive system of general and special remedies, and distribute the responsibilities among governments, non-governmental organisations, and the individuals themselves.

Consensus and Conflict

We need a certain degree of consensus to form an effective intervention programme. But it is not possible to achieve any major results without realizing some of the basic conflicts which are typical of this field. This is a difficult paradox. Especially for governments in pluralistic communities, it is difficult to introduce programmes which may be at odds with strong alcohol industries, or challenge the need in many individuals for justification of their own drinking practices. It has so far been easier to find consensus about intervention against illegal drugs, but the condition has been that drug problems have been artificially separated from alcohol problems, with which in reality they are strongly intermixed. In order to achieve more success we need more courage to challenge difficult conflicts of interest. And for this we need implementators with high personal or institutional integrity.

Minority Problem?

The controversy starts with the very definition of the problem. A long-standing tradition is to define the victims of dependencies as a limited population with some clear particularities, distinct from the rest of the population. This understanding has three obvious sources: 1) The bulk of scientific studies of alcohol and drug problems was for a long time focused on the particularities of the most persistent problem drinkers or drug-takers (1). 2) Those who work with treatment and rehabilitation of addicts have formed their picture of the problem on the basis of immediate experience with this group.

3) The normal users of alcohol are content with an understanding of the problem as something mainly concerning somebody else.

Majority Problem?

As a matter of fact, alcohol-related problems also occur outside of the group of stigmatized "abusers." My colleague Jacek Morawski has just presented a broader perspective (2). The "public health perspective" is occupied with all kinds of problematic phenomena attached to drink or drugs, regardless of which strata of the population they take place in (3). I will mention three important messages which can be drawn from the studies within this school of alcohol and drug research:

1. Problems like accidents, violence, and crime are dominant detrimental effects of the use of intoxicants. Even those who are labeled "addicts," often with a distinct medical diagnosis, experience their biggest factual problems in connection with intoxication-related incidents. But the largest number of such incidents happen to people who are not addicts, just occasionally drunk.

2. The bulk of intoxication-related problems happens in connection with situations which are typical of the drinking culture of the population in question: Celebration, relaxation, socialization. Differences in consumption can often be explained by the fact that some people only rarely are in such situations, whereas others may be seeking them frequently: some drink small quantities, others much more (4).

3) Subcultures which permit excessive drinking or indeed abuse of illegal drugs, are also parts of the system. Even juvenile drunkenness and experiments with illegal drugs are often linked to environments which are frequented by people with no particular addiction problems, just searching for some time off. Many people go in and out of abusive practices without outside intervention.

From these three observations it follows that excessive drinking can only be reduced in concert with the reduction of social drinking. If the typical drinking situations were fewer, and the amounts drunk were less, this would have an effect on all drinkers, both the excessive, the social, and the moderate ones. This has also been realized by The World Health Organisation. It adopted a new policy, based on the public health perspective, in 1979 by recommending that governments work for reduction in over-all con-

sumption of alcohol (5). In Europe this was followed up in 1985 by the suggestion of targets for the " Health for All " programme, one of them being the reduction of the consumption of alcohol and other harmful substances by at least 25% by the year 2000 (6).

Vested Interests and Biased Concepts

It is no wonder that those who earn their living in producing or handling alcohol dislike the recommendation that over-all consumption of their product should be reduced. During the last years we have seen increasing activity to discredit the public health concept, and to limit the problem to a minority again. Part of it has been to question the links between total consumption and the incidence of alcohol-related harm. But the success has been limited, since the research on such links has been going on and has brought forward much new evidence.

A second attempt has been to block the recognition of the recommendations from international organisations on the national level. This has been far more successful. A survey of the WHO " Health for All " programme in Europe showed that only three countries had adopted the goal of reducing alcohol consumption by 25% (Finland, Norway, Sweden) (7). A study of the powers of the multinational drinks industry, made at the request of the WHO (8), was denied publication, obviously because of heavy pressure from governments with strong alcohol interests.

Since British interests are dominant in multi-national trade in alcohol, it is not surprising that their influence on the government is considerable. But they have seen the need for influencing public opinion as well. This led to the formation of a documentation and information centre, the Portman Group, in 1988. This institution has large funds and is now a major sponsor of alcohol awareness programmes in the UK. The condition is that any mentioning of connections between average consumption and harm is banned from these programmes. The objective is to teach traditional middle class moderation.



A third part of the strategy is to operate a lobby against alcohol control policies. Awareness campaigns are presented as alternatives to control remedies. Those who defend control are labeled as " neo-prohibitionists. " It is noteworthy how the Portman Group, together with associations of advertising agencies and some American alcohol interests (9), try to oppose alcohol control initiatives in European institutions. A first attempt was made in the Council of Europe in 1990 (10), and a second one in October 1991 when these interests approached members of the European Parliament (11). On both occasions they used as much energy in blackening what they called " the anti-alcohol lobby " as they did in presenting their own alternative.

It is to be expected that drinks industries all over the World will join this strategy. They have seen the need for improving their public image, and are willing to sponsor alcohol awareness campaigns and alcohol research. The problem is, however, that this support is given on the condition that only the minority problems are studied and presented to the public. This is a threat to the integrity of poor governments and NGOs who want to prevent alcohol-related problems.

Individual Responsibility

Personal morality has hardly been raised in discussions about alcohol and drug problems in my lifetime. This follows from the foeus on the problems of heavily addicted people. Quite correctly, it was maintained that it would be unethical and counterproductive to give them blame in addition to all their other problems.

It was, no doubt, a big step forward for alcohol addicts when their condition was accepted as an illness in the 40s and 50s, and they got access to treatment and social security. Still, they are often subject to a " wet moralism, " blaming them for breaking the rules and spoiling the game for other drinkers. The disease concept offered some defence in assuming that addicts are indeed different, with genetic as well as social dispositions which make them

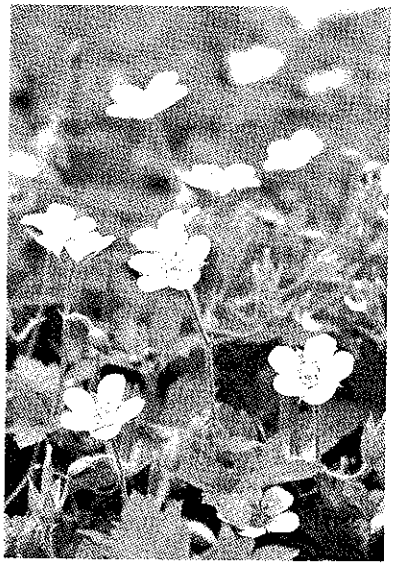
especially vulnerable to alcohol (and drug) problems. One also offers a series of definitions which places even occasional drink problems into a system of different kinds of alcoholism: alpha, beta, gamma, delta, epsilon (1).

When the epidemic of drug abuse rolled over the Western World in the mid-60s, the image of addiction was already well-established. Young people who experimented with drugs were easily stamped " drug addicts, " and often given up as hopeless long before any real addiction had been established The fact that the substances were illegal, also gave them a status outside the law, and created an atmosphere of fear and rejection among well established citizens. Rehabilitation of drug addicts had to first break this rejection before an integration into society could take place. No wonder that professional workers in this field were very critical towards moral judgements of their clients

Innocent Victims

A third party was not recognized in this understanding, namely the innocent third party, women and children suffering alcohol-related violence or neglect, victims of alcohol-and drug-related crime, etc Gradually, however, alcohol-related car accidents became a major cause of invalidity and death among young people in several countries. Victims were left with little protection, whereas those who hit them sometimes walked away with minimal sentences and were allowed to continue driving. No wonder that some of the victims went mad, and in America they founded MADD—Mothers Against Drunk Drivers—which quickly grew into a powerful national organisation (12).

I am sorry to say that one of the motives behind this movement was revenge. They charged many alcoholics with manslaughter, and acted in courts for stiffer penalties. The work for justice for the victims became, however, a vehicle for a new view of drinking and driving in the USA. The moral signal from it is that drink is no excuse, and that the individual must be held responsible for his actions even if he has a drinking problem.



Collective Responsibility?

What the victims' movement did not realize is the importance of the social context around drinking, and the collective nature of the drinking culture. Again, the majority of drinkers succeeded in isolating the problem to some particular persons and situations. But it is an established fact that even the incidence of drunk driving in a population co-varies with the over-all consumption of alcohol. Action against drunk driving may have a direct effect on the level of consumption. The other way round, a decrease in alcohol consumption for other reasons will probably even gain traffic safety (13).

Further, the disadvantage of the medical recognition of alcoholism was that an artificial borderline between social and excessive drinking was cemented, not only with moral distinctions, but also medical definitions. Among most alcohol users the formula was: I am not an alcoholic: ergo my drinking is harmless. This formula excluded the co-responsibility for bringing fellow men into temptation, which so often is the case in social drinking situations.

Today it is easier to see that the disapproval of moral judgements in connections with drinking and drug use was much too broad. The appropriate warning against blaming the victims has had the undesirable side-effect of dissolving many of the informal social controls which are essential for protection of health and social welfare. A primitive self-justification of established drinking practices came in as another motive for discouraging advocacy of moral standards.

We have no right to condemn those who are fallen down because of drink, especially not if we are frequent swingers of the glass ourselves. If a group of mates often meets over a glass, and one or two of them develop drinking problems and lose control, are the latter then more responsible than the others? They have all followed the same rules, but for some reason only a few of them have fallen over the brink. The others may have been protected by stronger physical or mental resistance, or simply because they have better resources in

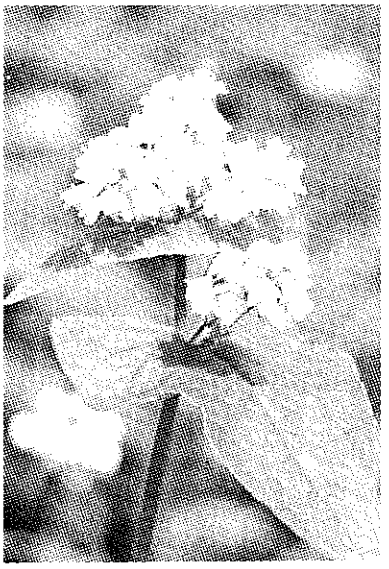
their immediate surroundings, more to lose etc.

Therefore the main moral issue in the drink and drug problem is not the question of *abuse*, but the question of *use*. The rules which govern the use of intoxicants in a whole population or a distinct social group are essential (4).

Excuse

It has been said that if you want to speak your opinion to your boss or give your wife a good beating, you should see to it that you are drunk first. This will make it easier for you to be forgiven afterwards (14).

If nobody is seriously hurt, we may only laugh, or even see the risk-taking as a merit. This attitude is, of course, the mother of many more serious incidents. The margin between something funny and something disastrous is thin as paper. A possible way of lowering the frequency of alcohol-related accidents and violence is to keep drinkers responsible even for small incidents, not stimulate them by laughing, but show them a clear disapproval of anti-social behaviour.



Guilt

It is sometimes argued that a feeling of guilt complicates drinking behaviour, and makes a drinking problem even more difficult. Some have even felt that strict alcohol control policies may induce such guilt and thus be counterproductive. This school of thought gained strong influence in Finland in the 1960s. Finns would seldom drink during work-days, but many drank a lot at festive occasions, during week-ends, etc. In 1969 Finnish authorities started a large-scale experiment by relaxing alcohol laws, opening many new outlets and restaurants etc., in the hope that the difficult Finnish drinking tradition should become somewhat more social

I am sorry to say that this turned out to be a capital error. Within one year the alcohol consumption increased by 40% and was doubled in six. All kinds of alcohol-related harm increased alarmingly, especially violence and crime (15). After a few years the Government had to reverse this policy. But it was too late to come back to the starting point. Even though the increase stopped, Finland continued to be the Nordic country with the highest per capita consumption. The guilt complex remained the same.

The Finnish example is representative of the traditional drinking pattern in Northern and Eastern Europe. Another extreme may have been existing in some Mediterranean countries with a pattern of drinking wine for meals, but also for socializing among men. This pattern was characterized by a passive, non-violent behaviour. Negative consequences were of a medical nature in the form of toxic damage to bodily organs. Drinking was not associated with guilt.

In most countries one can find a mix of these two extremes. The tendency in our time is that drinking cultures float together, mostly so that new elements come on top of the existing practice. In the Nordic countries wine comes in strongly and is drunk more frequently in moderate quantities. But it is still usual to get drunk, and drinking is still associated with guilt. In southern countries beer and spirits come in, and it becomes more usual to get drunk, and to use drink as an excuse for unsocial behaviour. Guilt is still not a dominant feeling.

It is time to raise the discussion whether guilt is only a negative feeling in connection with drink and drug problems. Such feelings may as well keep people from committing crimes and other anti-social acts as bring them into pathological reactions. The main consideration should be whether or not the guilt has a real basis. Many causers of social problems have rather too little than too much guilt.

Another important distinction is between guilt and responsibility. Even those who are not guilty of causing any problem should accept a share of a collective responsibility. The main point in this is to reduce drinking pressure, discourage risk-taking under the influence, and help establish alternatives to drinking.

Forgiveness

I am well aware that it is impossible to enforce moral rules in a so-

ciety, and then make exceptions for those breaking them most often because we want to lead them into confidence and rehabilitation. Therefore the mechanism of forgiveness and a new start is inevitable in rehabilitation programmes. Those who are subject to the sanctions of the system must find comfort and forgiveness. Everybody should be made aware that the same problems could have happened to him, if only conditions had been a little bit different.

Morality and Family Life

The discussion of morality in connection with alcohol is parallel to another difficult conflict area, namely family and sexual life. The pill softened the consequences of promiscuity, and higher standards of living and better social security systems, those of broken family ties.

But the adverse effect of a mass movement of broken families and divorced children has clearly become one of the most pressing social and health problems in the modern world. Divorced men can be seen as a particular risk group for alcohol problems. Lonely mothers often suffer material scarcity, guilt, and stress. And the children are overrepresented when it comes to health problems, difficulties with social adjustment, and poor school performance. On the other hand, it is observed in numerous studies that stable social relations, clear norms (which are observed!), and careful lifestyle protect health and welfare. Active participation in church or other community life is another positive factor of the same kind (16).

The More Influence, the More Responsibility

Social problems cannot be isolated from the living conditions of their victims. Lack of resources, influence, education, etc. determine many a social problem. We, who are well fed and protected, have no right to condemn those who are suffering. But, as a matter of fact, even those people are better off if they have clear beliefs and a solid fabric in their social relations consisting of norms and mutual responsibilities. It is hardly the poor and the weak who oppose moral standards. This opposition more frequently comes from the strong and rich, who have the resources to administer their promiscuity, their drinking or drug-taking, and who want their freedom to continue with it. It is appropriate to enhance norms for those who are in control of their drinking, but still contribute actively to maintaining a social pressure on the weaker.



The basis of such a morality must be an understanding of the social nature of drinking, realizing that any drinker risks suffering an alcohol-related problem, some acute when under the influence, and some long-term because of damage to bodily organs or dependency. Moral standards should be to promote life and health, to protect the weaker, and to claim from attractive sensations that they are real and sober. It would be very desirable to keep some situations completely free of intoxicants. In my culture these would include (17):

— Traffic

— Work

— Boating and bathing

— Sport

— Activities for children and youth

— Pregnancy

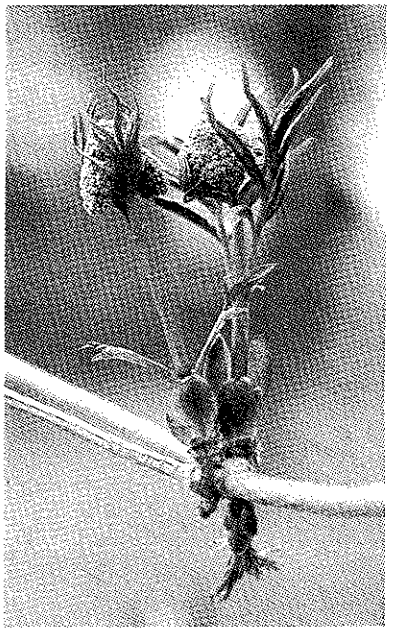
— Depressions

Other cultures would go much further. Provided there is a certain degree of concensus behind such norms, this is fine. Unfortunately, the list of alcohol-free situations might also be considerably shorter in some places. There is still a long way to go before work and sport places are free of alcohol, let alone the rest of the list. Today depressed people are sometimes encouraged to escape into drinking, or into taking medical drugs. Their real need is more often a warm hand, or a patient listener who demonstrates sympathy.

One may argue whether discouragement of drinking in some situations implies acceptance of drinking

in others. My position is to leave this to a personal choice. But still the main objective should be to minimize consumption and to make it practicable to stay alcohol-free. General norms may be that excessive drinking should be discouraged, and alcohol-free drinks always be offered so that everybody has a real choice.

It is also necessary to provide sober cultural alternatives to such social settings which are strongly associated with drinking. This is especially important in youth work. We cannot depend on commercial offers alone, since they will tend to seek profit in drink. Parents, religious and social communities, etc. have a special duty to help in organising such alternatives.



Moral Authority in Pluralistic Communities

Not all norms which have been imposed on people give protection of health and social welfare. Often enough, they rather aim at reinforcing the privileges or power of a certain few. The struggle for freedom and emancipation in this century can be read as a rebellion against abuse of such authority. Especially the claim of religious authority in secular matters has provoked strong reactions. This may have made religious communities defensive in using their moral imperative. The state is even more defensive. The norm is not to interfere in personal matters and leave morality to the individuals. This may appear as a desirable situation for resourceful people who have a clear determination for their life and career. But many other people are confused. The norms in society only become visible when one breaks the rules and is subject to sanctions. It is a problem in Western societies that there are very few who take responsibility for advocating a set of norms. This is particularly the case for secular norms, like those involved in the use of alcohol. This weakens the norms for drinking and makes them very vulnerable to social and cultural trends.

Religious and ethnic homogenous societies are few and far between. Much more frequent is a situation with a mix of nationalities, languages, religions etc. In such societies people seek protection among their likes. Sometimes this creates a social network of such strength that it compensates for the lack of common norms in the rest of the society. But those who drop out of or do not belong to any of the clear " value clans, " are in a very difficult situation. They lack social protection and have no strong normative force to lean on. We may face even more difficult social problems if we do not find new ways of reaching consensus about norms of behaviour which are valid even outside the clans. This must be somewhat more than just the smallest common denominator which results from an agreement when all parties have first presented their objections (18).

A starting point is to allow and encourage a diversity in norms and programmes, where each can claim a certain authority, based on religious, political, or scientific grounds. The opposite, which means that no particular values are advocated, can only result in nihilism. Those who operate prevention programmes should be encouraged to show more clearly which normative values they advocate and be scrutinized with regard to their personal integrity. Points of concern are personal lifestyle and willingness to solidarize with those who are at risk.

Voluntary Organisations

A pluralistic approach means that there must be a distribution of tasks between governmental and non-governmental actors. In some countries the government will provide a wide range of services, leaving little room to the others. In other cases even typical communal matters are left to voluntary bodies. Some of these may see themselves as entrepreneurs that simply carry out a task on behalf of the state. Others have a broad humanitarian or religious motive. Generally, organisations which chiefly provide services to individuals who are in need of immediate help, have little energy left to fight for a broader prevention policy.

Therefore we also need organisations which specialize in the prevention of alcohol and drug problems.

This has traditionally been the task for the temperance movement. This is a diverse movement with different philosophies and action programmes. Some claim total abstinence from their members; others are open to anybody who wants to contribute to the work. Most of them do, however, try to maintain an alcohol-free social life among members and other participants and to support programmes aiming at reducing over-all alcohol consumption.

A lot of these organisations are now associated with the international organisation I represent. The International Organization of Good Templars (19) It was started 140 years ago as an order based on traditions from the puritan North America. Today hardly more than the name is left of this tradition. During the last few decades, IOGT has developed into a conglomerate of temperance organisations and institutions throughout the world and counts well over 10 million members in all continents and from all major religious communities. We are united in our concern for alcohol and drug problems and seek to promote such work wherever we can. We see our main roles in the following fields:

1. As initiators of programmes and policies which can put pressure on governments and other major actors in the prevention and treatment fields, pressing for firmer action and counteracting the alcohol lobby.

2 As creators of alcohol- and drug-free zones in society which can serve as:

— workshops for alcohol- and drug-free celebrations, problem-solving and social networking;

— models for sober practices in educational work;

— safe places for rehabilitation and after-care.

We are well aware that our effort will not be enough to change general attitudes towards alcohol and drug problems. Therefore, we are seeking alliances with all kinds of religious and social movements which can bring the prevention issue higher on the public agenda.





At this conference we have a unique opportunity to meet representatives of one of the most important religious communities in the World. Although we welcome Catholics as members, we are not offering anything which can substitute for religious faith. We stick to our speciality. But we want to work together with the Church, establish a dialogue on ethical education of young people, on caring for those with particular problems, and on sensitizing ordinary people about their collective responsibility for social problems.

We have such a dialogue with other religious communities as well. All of them seem to have a desire to reinforce some simple social norms, and to contribute to a more protective social network. Many of their representatives are heavily frustrated about the professional community, which by and large has been unwilling to raise or discuss ethical matters or initiate prevention programmes with messages clear enough to be understood. Some have even expressed a wish for a discussion with leaders from other great value communities so that some simple objectives may be laid down for more action-oriented interventions. These may be based on values which are the same even if they are phrased differently.

IOGT is setting up meetings with spiritual leaders in several parts of the World. We appeal to the Catholic Church to participate in such discussions. It has become fashionable to praise spiritual faith as a strong vehicle for rehabilitation. It may be time to try it with more confidence also for prevention.

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President of the International Organization of Good Templars
Norway

References

1 For instance E.M. JELLINEK: The disease concept of alcoholism, New Brunswick 1960

2 MORAWSKI, JACEK: Alcoholism. A Challenge to the United Nations, Sixth International Conference *Drugs and Alcoholism against Life*, The Vatican 1991.

3. BRUUN et al: Alcohol-related problems in public health perspective, Helsinki 1975

4 The negative social consequences of alcohol use. Report from the UN Expert Meeting, Oslo 1990.

5 WHO 1979: Resolution on alcohol-related problems

6. WHO European Office: Targets for Health for All, Copenhagen 1985

7 Done by Esa Österberg. Alko. Finland

8 Alcoholic Beverages: Dimensions of Corporate Power, The Globe No 3. 1983

9 The American institution referred to is The Century Council.

10. Unsigned material distributed to members of the CE Parliamentarian Assembly in connection with the handling of a resolution on alcohol policies in 1990

11 The meeting took place 23 October 1991

12 Mothers Against Drunk Driving, Suite 310, 699 Airport Freeway, Hurst, Texas 76053.

13. This is shown a.o. in the policy recommendations against drunk driving given by the Alcohol Research Foundation. Ontario, Canada.

14 FEKJMER, HANS OLAV: Alkohol og narkotika, Oslo 1987

15 MÄKELÄ, K : Levels of consumption and social consequences of drinking. In Israel et al: Research Advances in Alcohol and Drug Problems. New York 1978

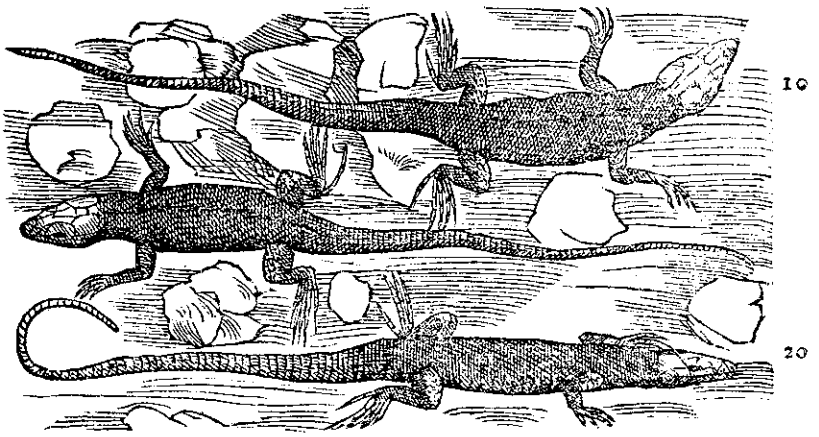
16 LASCH, CHR.: The culture of narcissism, Abaeus 1979 (Here, acc to Sundby Per: Medisin, moral og det gode liv, Oslo 1982)

17 These are objectives of the Norwegian awareness campaign "Alko-kutt." which consists of churches, sports associations, trade unions, health and social welfare organisations etc. Alko-kutt, Møllergt, 38, N-0179 Oslo 1, Norway

18 Advocacy for Health. A programme for health promotion in Europe, issued by the European Office of the International Union for Health Education 1991

19. See KOLSTAD, H : IOGT Handbook, IOGT International, 1, The Quay, St. Ives. Cambs, PE 17 AS, England

LVCERTOLE.



BRUNO SILVESTRINI

Psychoactive Drugs Used in Therapy Subject to Abuse

Introduction

Drug addiction, also simply called dependence, is one of the most feared forms of drug abuse because of its medical and social implications. WHO (1) defines it as "a physical and psychic state resulting from the interaction between a living organism and a drug, characterized by behavioural changes and other reactions including a compulsion to take a drug to reproduce its psychic effects and avoid disturbances associated with its deprivation." With a few exceptions, like that of alcohol, "addictive drugs" consist of psychotropic agents which are or could be used therapeutically. Typical examples are morphine and its derivatives, cocaine, amphetamine, some barbiturates and benzodiazepines, nicotine, and others.

The boundary between medical use and abuse of addictive drugs is discussed by starting from some considerations on the biological basis of drug addiction, its factors, and its correlation with mental diseases. So as to gain space, all references that can be easily found in reviews or textbooks have been eliminated. Psychotropic agents which, like LSD (lysergic acid diethylamide), do not give rise to dependence phenomena although producing some dangerous forms of abuse, will be excluded from this paper.

Biological basis of drug addiction

Drug addiction belongs to the homeostatic processes which permit living organisms to react to alterations of their physiological state with opposite adjustments. For example, if a hormone reaches abnormally high levels, its endogenous production ceases; if there is a rise in blood pressure the centres causing hypotension are activated. Addictive drugs cause physiological adjustments of similar significance. For example, morphine produces a feeling of calmness, alleviates pain and produces miosis, hypotension, and other symptoms of parasympathetic stimulation; the organism counteracts these effects by lowering the threshold of excitability to pain and other stimuli and activating the sympathetic system. On the contrary, cocaine excites, reduces fatigue, and stimulates the sympathetic system; the organism reacts to these disturbances by reducing the reaction to stimuli and activating the parasympathetic system.

The first dose of an addictive drug produces an effective but delayed compensatory response; consequently, these two phenomena neutralize each other only partially (Fig. 1, a). This explains why initially an addictive drug exerts complex and generally unpleasant effects. Prolonged or repeated doses of an addictive drug, instead, produce a more stable homeostatic adaptation which counterbalances and neutralizes its effects: the organism, therefore, can function regularly under the effects of an addictive drug (Fig. 1, b). Suspension of the latter precipitates a crisis called withdrawal syndrome due to the fact that physiological adjustments are no longer counterbalanced by the addictive drug (Fig. 1, c).

Another interesting feature of homeostatic reactions is that they are often stronger than is actually required to counterbalance the underlying alteration (Fig. 1, b). This phenomenon explains why exposure to addictive drugs produces a tolerance characterized by the fact that the drug's efficacy is lost or is manifested only at higher doses than those initially active. In the case of poisoning, this phenomena is also referred to as mithridatism.

Many substances induce a homeostatic response in the organism. In this respect, however, addictive drugs are unique because of the psychic and psychosomatic implications of this process. This characteristic explains the differences existing between drug addiction and other forms of physical dependence, for example, that produced by the prolonged administration of many hormones.

As drug addiction is a particular expression of a physiological defence capacity, anyone can become a drug addict. Whether or not this occurs depends on environmental and constitutional factors.

Factors of drug addiction

The story of peoples shows that an important factor for drug dependence is the availability and cultural acceptance of addictive agents. Typical examples are opium, tobacco, alcohol, and others. A particularly representative case is that of alcoholism, which about 260 years ago struck most of the population in some areas of England in concomitance with the availability of low price concentrated alcohol obtained through the distillation of juniper (2). Another interesting case is that of rats, which on one of the Canary Islands



Figure 1 - In drug addiction three stages may be distinguished:
a) the acute adaptation response, out of phase with the effects of the drug; b) the chronic adaptation response, which balances the effects of the drug; c) the abstinence syndrome, which is manifested when the organism's physiological adaptations to the drug are no longer balanced by it

which seem to develop a form of dependence on a plant (Fig 2) widespread in their natural environment (3). Anyone can initially be driven to trying a drug for sheer curiosity or for medical, social, and cultural reasons; an illness for which morphine or any addictive drug may be prescribed, often ignoring its danger; doping; the need, particularly in puberty, of asserting oneself by infringement of laws; imitation of famous people, particularly in the entertainment world.

The constitutional factors of drug addiction are just as critical as the environmental ones. Their importance is shown by the common observation that some individuals may intermittently make use of tobacco and at times even of heavy drugs without becoming addicted, whereas others become so after only a few administrations. Paradoxically, the latter are endowed with particularly efficient homeostatic physiological mechanisms. Moreover, different studies show the existence of a hereditary predisposition to drug addiction associated with that of some mental diseases, like depression. And yet there was much controversy over Rita Levi Montalcini's mentioning the role of these genetic factors, as if recognizing their importance represented an attack on man's free will. It has been proposed that in these individuals the use of addictive drugs is a sort of self-medication. It is interesting to recall in this respect that Bleuler (4), considered one of the pioneers of modern psychiatry, had observed that morphine has a curative effect in the depressed patient. Unfortunately, drugs frequently represent a much worse remedy than the disease to be cured (5) (Fig 3).

Apart from this, it is reasonable that there are two types of drug addict among which all the others are included: that characterized by marked predisposition to addiction and a relatively moderate influence of environmental factors; that, on the contrary, in which the latter play the fundamental role.

If addictive drugs are not used to combat those medical conditions in which they are effective, initially they may give rise to side effects, such as palpitations, vomiting, dazed state, and other manifestations which may discourage an individual to repeat the experience. If this does not occur after periods of time varying from drug to drug and individual to individual, the physiological adaptation is established which nourishes the craving for drugs over and above the initial motivations.

Drug addiction and mental disease

Practically speaking, there are two different forms of drug addiction that should be considered separately: the simple form and addiction complicated by severe mental disease. Simple drug addiction usually strikes otherwise normal individuals. They often lead a normal life, provided they are in a position to procure a good quality drug without any problem. This statement is based on ample evidence not only regarding tobacco, which

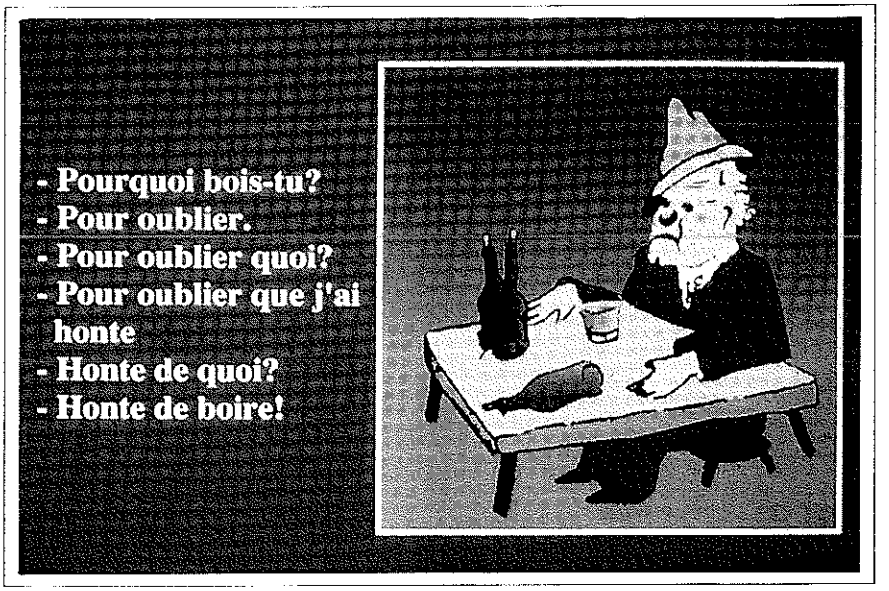


Figure 2 - Some regard drugs as an attempt at self-medication which, unfortunately, is seen to be worse than the malady to be cured (De Saint-Exupéry, 5).

is scientifically considered an addictive drug, but also substances like opium, cocaine, and their active ingredients. Addictive drugs, however, generally produce toxic effects, apart from addictive liability. Some of them may be reduced; for example, the risk of lung cancer associated with tobacco smoking can, in all probability, be avoided by substituting it with the oral or transdermic administration of nicotine; that of viral hepatitis or AIDS with sterile syringes. Other toxic effects are, instead, inevitable, as they are part of the drug's properties. For example, nicotine may be detrimental to the cardiovascular system; amphetamine, at high doses or in predisposed subjects, produces similar manifestations to that of schizophrenia; morphine and, in general, other opiates depress the immune system; alcohol may damage the liver and other organs. In some instances, these toxic effects are irreversible. In this form of drug addiction, withdrawal may resolve the root of the problem. Theoretically, it may be facilitated by supportive treatments, such as:

a) Substitution of addictive drugs with drugs having similar psychotropic effects but devoid of addictive liability. This approach is theoretically interesting, but so far has proved unsuccessful, starting from the well-known case of heroin.

b) Attenuation of withdrawal symptoms with substances endowed with complementary effects to those of the withdrawal syndrome (6,7).

c) Long-term antidepressant therapy following withdrawal.



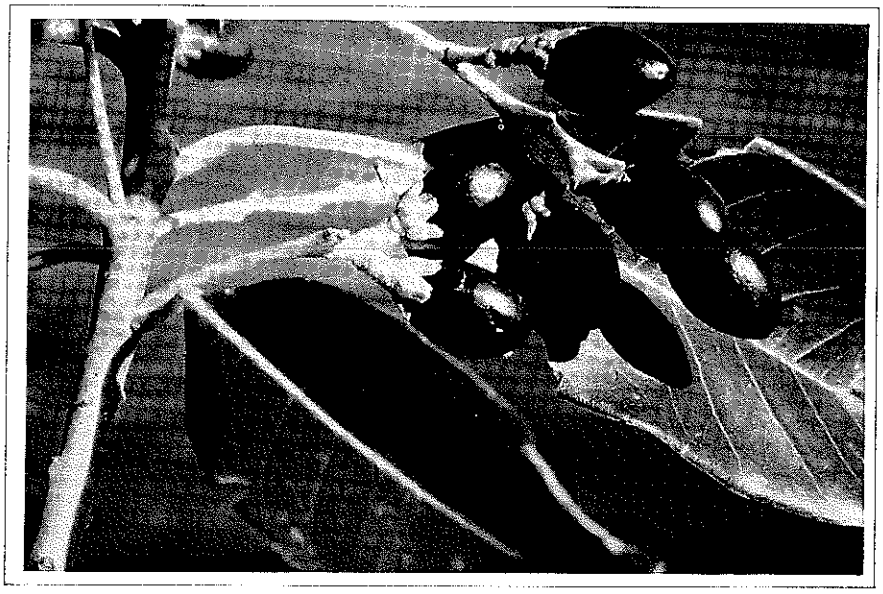


Figure 3 - The Indian Persea is a plant growing spontaneously on some of the Canary Islands. The rats consuming it present manifestations reminiscent of alcoholism and develop an apparent addiction.

The latter two have been proven both preclinical and clinically, using drugs having both sympatholytic and antidepressant properties (8-12). Unfortunately, so far there has been a lack of interest by the pharmaceutical industry and public institutions in exploiting these results.

Withdrawal, however, is not always successful, and relapses are frequent both for psychological reasons and because homeostatic adjustments of the organism may persist, giving rise, together with other factors, to a craving for drugs even after years. Moreover, a state of irritability may persist for several months with symptoms of depression. Inconveniences of this type emerge even with tobacco. Despite their determining a relatively mild dependence as compared to heroin and other illicit drugs, there are patients who have continued smoking even though suffering from severe cardiovascular disturbances, like heart attack, Burger's disease, or lung cancer. If withdrawal is unsuccessful, some people believe that the rigourously controlled administration of addictive drugs is preferable to both medical and social harm arising from its illegal distribution. This solution has so far come up against serious practical drawbacks, starting with the resulting illegal business. Nowadays these difficulties could be overcome through pharmaceutical dosage forms, like controlled release injections, which cannot be transferred from one individual to another.

Drug addiction complicated by severe mental diseases, such as schizophrenia, unipolar and bipolar depression, and obsessive-compulsive forms has an incidence of over 50 percent in some groups (13-16). In some cases, this pathology is caused by drug addiction; in others it seems to precede and favour its development. The real problem is that of an accurate diagnosis followed by pharmacological treatment or by psychotherapy adapted to the individual case regarding the two components of the disease. Withdrawal is important, but it is

obviously not the solution. If unsuccessful, rigorously controlled drug administration is seemingly preferable to the hazards of illegal distribution

Summary and conclusions

Drug addiction is therefore to be considered an exasperated and pathological expression of physiological homeostatic processes that permit living organisms to react to alterations of their physiological state with counter adjustments Consequently, in theory, anyone can become a drug addict. Whether or not this actually happens depends on environmental and constitutional factors. The former are of social and cultural nature, but, above all, consist of the drug availability. There is a great deal of prejudice as far as constitutional factors are concerned, but incontrovertible findings demonstrate their importance as risk factors. Whatever its origin, once the vicious circle of drug addiction is set up, it is self-fed without further need of the initial motivations. Thus the necessity to intervene on the condition of the drug addict.

In doing this, it is necessary to consider the fact that two distinct forms of drug addiction exist: the simple form and addiction complicated by severe mental disturbances which may either precede it, favouring its onset, or ensue due to the prolonged use of the addictive drug. Simple drug addiction strikes otherwise normal individuals who can lead a normal life as long as they can procure the amount of drug necessary for maintaining their physical and mental well-being. Withdrawal may resolve the root of their problem, and, therefore, it is to be encouraged, eventually with a supportive pharmacological treatment. It is not always successful, however, and then the question arises as to whether or not rigorously controlled drug administration is preferable to both the medical and social drawbacks associated with its illegal distribution. Experience so far is not encouraging, but many shortcomings and risks could be avoided by exploiting all the possibilities offered by current technologies. Addictive drugs cannot be used freely as they are dangerous instruments like explosives, which if used imprudently may culminate in death and destruction.



The drug addict with severe mental disturbances should, instead, be considered a mental patient with all the inevitable consequences both medically and socially. To cope with the problem properly the health and welfare services should be strengthened, and, above all, there should be more perseverance by the medical class, who so far have somewhat ignored the problem. Drug addiction complicated by mental disturbances often implies unusual clinical pictures which are difficult to classify. It should therefore be explored and debated, and diagnostic criteria must be better defined. This type of drug addiction is the competence of the medical services and not the police. Withdrawal is obviously to be encouraged, but does not resolve the problem, as in the case of simple drug addiction; to a certain extent it may even aggravate the mental disease because of the associated psychosomatic imbalance and because, in some cases, addictive drugs may represent a sort of self-medication.

It is hard to raise medical or even legal objections against the notion that some addicts are to be considered mental patients; apart from the specific laws on drugs, in fact, in most countries the mental patient belongs to the category of individuals with an incapacity to intend and will. Objections are nourished by the widespread opinion that drug addiction is a crime to be dealt with by essentially repressive measures. The campaign against drug addiction should instead take into consideration diverse aspects of the problem: not only addictive drug manufacture, traffic, distribution, and social motivations influencing diffusion, but also the medical condition of drug addicts. This article is focused on the latter in the attempt to highlight certain issues to which too little importance is often attached and to suggest courses of action that may allow our society to face drug addiction in a humane way, respecting the fundamental rights of man.

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References

1 La Jeunesse et la drogue. Org mond Santé Ser Rapp techn , 1973; n 516

2 Dole Vp *Il comportamento del tossicodipendente* Le Scienze, 1981; n 150 26: 62-70

3 Mazzanti G., Bettschart A., Braghiroli L , de Feo G., Panzironi C., Saso L. *persea indica· attività farmacologiche dell'estratto totale* VI Congresso della Soc Ital. di Farmacognosia, Roma, 10-12 ottobre 1991

4 Bleuler E , *Textbook of psychiatry* (McMillan, New York 1924)

5 De Saint-Exupery A., *Le petit prince* Gallimard, Paris 1940

6 Silvestrini B., *Trazodone and the mental pain hypothesis of depression*. Neuropsychobiology 1986; 15: suppl 1, 2-9

7 Silvestrini B., Progetto finalizzato CNR " Medicina Preventiva e Riabilitativa " —Schede Conclusive— Sindrome di astinenza e dapiprazolo 1989; 412

8 Fedeli S, Ferri FA, Fogari R , *Blockage of acute opiate withdrawal symptoms by trazodone treatment* Boll Chim Farm 1979; 118: 368-372

9 Roccatagliata G., Albano C., Maffini M , Farelli S , *Alcohol withdrawal syndrome treatment with trazodone*. Int Pharmaco-psychiat 1980; 15: 105-110

10 Santos O., Rodriguez AM., *O emprego de trazodone no tratamento auxiliar de pacientes farmaco-dependentes e alcoolatras* Folha med 1977; 75: 597-602

11 Pini L A., Sternieri E., Ferretti C., *Dapiprazole compared with clonidine and a placebo in detoxification of opiate addicts*. Int. J Clin Pharm Res 1991; 11 (2): 99-105

12 Valeri P., Martinelli B., Pimpinella G., Severini C., *Effects of dapiprazole, clonidine and yohimbine on the development of dependence and withdrawal behaviour in mice* Drug and Alcohol Dependence, 1989; 23: 73-77

13 Christie K.A , Burke J D., Regier D A., Rae D.S., Boyd J.H , Locke B.Z., *Epidemiologic evidence for early onset of mental disorders and higher risk of drug abuse in young adults*. Am J Psychiatry, 1988; 145: 971-975

14 Deykin E.Y., Levy J C., Wells V , *Adolescent depression, alcohol and drug abuse*. Am J Public Health, 1986; 77: 178-182

15 Gold S M , Slaby A E (eds) *Dual diagnosis in substance abuse*. Marcel Dekker Inc New York, 1991

16 Regier D A , Farmer M E , Rae D S , Locke B Z., Keth S J., Judd L L , Goodwin F K., *Comorbidity of mental disorders with alcohol and drug abuse*. JAMA, 1990; 264: 2511-2518



ZHANG JU

Drug Addiction and Its Problems in China

China was a nation with a severe drug problem before the founding of the People's Republic of China in 1949. The history of narcotic drugs began in the ninth century with Indian opium imported by Arab traders for Chinese medicine. It was not until the eighteenth century that large quantities of opium grown in India created addiction in China despite Imperial edicts against opium in 1729 and 1800. The Imperial Government of China had become concerned about the social problems created by the importing of opium and the rapid drain of silver from China to pay for it. These factors led Emperor Dao Guang to appoint a strong advocate of opium prohibition, Lin Zexu (Lin Tse-hsu, 1785-1850), Governor-General of Hunan and Hubei Provinces, as imperial commissioner in charge of banning the drug. Lin took firm action when he arrived in Guangzhou (Canton); he arrested the opium dealers, punished officials who accepted bribes, and ordered foreign merchants to hand over their opium. Under his direction, from June 3 to 25, 1839, more than 20,000 chests of opium, each weighing 150 pounds, were burned in public on the Humen Beach. This resulted in the Opium War between British and Chinese, 1840-1842. The Chinese lost this war, and the resulting Treaty of Nanking opened China to an opium trade which remained active until 1949.

The Opium War marked a significant turning point in China's history and ushered in a new era. It is particularly important since the "legal" importing of Indian opium into China continued until 1917. The Revolution of 1911, which established the Republic of China, never dealt effectively with the opium trade, which remained an established and important source of illegal income for Chinese warlords and generals who were doing the opium producing and distributing. Despite the severe punishment of a few users by Chiang Kai-shek Government, drug addiction remained common through World War II. Until 1949, Chinese-grown opium poppies totalled more than one million hectares, most of which was used for smoking; more than 300,000 persons produced and distributed narcotics. Meanwhile, drug abuse spread through all social classes, and more than 20 million were addicted to opium, morphine, and heroin (Gu).

The People's Republic of China was proclaimed on October 1, 1949 in Peking (now called Beijing). In February 1950, the Government Administrative Counsel issued a Circular Order for the Prohibition of Opium signed by Premier Zhou En-lai. On October 1, 1950, the Ministry of Public Health issued an Order for the Promulgation of the Provisional Regulation on the Control of Narcotic Drugs. Soon afterwards, the mass movement against opium addiction was developed throughout the country. Mass meetings were held at which opium, heroin, and narcotic equipment was burned. Capital punishment was reserved for major dealers, while intermediate dealers were sent to prison. The anti-opium campaign was closely linked with ideological education, land reform, and other social changes. Addiction was denounced as anti-social and unhealthy; medical treatment of addicts was available in the cities, and difficult cases were referred to rehabilitation centres. Redistribution of land was followed by a change from the cultivation of opium to food crops. By March 1953, the Government's Xinhua News Agency claimed that "... as a result of the immense effort of the Central People's Government in strictly prohibiting the cultivation, manufacture, and sale of opium and the strict control of all narcotic drugs in the past three years, opium production and sale of opium and other narcotic drugs have been completely eliminated." Some reports made by foreigners proved that there was no opium addiction after the mid-1950's (Lowinger). The success of the anti-opium campaign enjoyed the support of all Chinese people and won widespread acclaim all over the world.

However, some international drug trafficking groups wanted to open up new smuggling routes by using China's open-door policy during the 1980s. The table listed below shows the number of cases and related information about the seizure of narcotic drugs by Chinese Customs and police in recent years.

It is easy to see from this table the increasing tendency of drug smuggling in China. Because of this, drug abuse, which had disappeared for more than 30 years, has staged a comeback in some of the regions in China, especially in the southwest border regions.

Yunnan Province in the southwest of China is close to the Golden Triangle—a lawless border area where Myanmar, Thailand, and Laos converge and which is the

The Seizure of Narcotics in China (1981-1990)

Year	Number	Opium (kg)	Heroin (kg)	Drug-dealers
1981-1982	18		60 257	no detail
1983	5	5 25	0 005	10
1984	3	30		4
1985	6	50	6 7	15
1986	12	112 7	24 098	32(21)
1987	56	137 45	36.682	74(66)
1988	268	239.122	166.158	188(120)
1989	547	269.4	488.3	749(716)
1990	3670	782	1632	5612(682)

* Numbers in brackets indicate foreign drug-dealers.
Note: This table is quoted from Legal Daily, June 25, 1991

greatest opiate drug-producing region in the world. There are no natural defences along the 4,032 kilometre-long border. Residents living in these areas intermarry and practice free trade. Drug traffickers take advantage of this to smuggle narcotics into China. The drugs roll in from Myanmar (formerly called Burma), hidden in shipments of living chickens, rice, and mangoes (Gibney Jr.), and the narcotics police rarely bother to check whether travelers are Chinese or Burmese; many of them are both. The trade has introduced a new style of drug addiction to Chinese youth. Although some take drugs by traditional eating or smoking, more and more of them take drugs by intravenous injection. In the county of Ruili, a Chinese town having a common boundary on three sides with Myanmar, there are now 2,500 drug users, roughly 3 percent of the total population in this county. There were only a few addicts found in 1982 (Zhang, J-P; Liu, Y; Yin). According to Chinese authorities' estimate in 1989, there are at least 70,000 drug abusers in China (He & Xiao).

Drug addiction has caused severe social, ethical, and security problems. There are many Dai (Tai) nationality people living in Yunnan Province who used to leave the doors of their houses open and be happy that strangers used their belongings, even when they were not home. It has not been until recently, since the number of addicts increased, that stealing has ever been heard of. But that is no longer the case since drug use has increased. Drugs make people excited and cause addiction. Whoever becomes addicted, regardless of the reasons and motives he may have had originally, finds it very difficult to break the habit. In China, drugs are very expensive, and it is said that a drug addict's habit costs at least several thousand yuan every month, which cannot be borne by normal income. If property has been exhausted, most addicts have to resort to corruption, stealing, swindling, and prostitution. There are many cases to confirm this fact. (Liu, Y; He & Xiao) Among the criminal cases cracked in Ruili in the first half of 1989, 93.3% were committed by drug addicts, as well as more than half the security cases (Liu, Y).



More important is the spread of drug abuse from border areas to cities in the interior and the spread of disease. Now drug use by intravenous injection (IV drug use) has become the main factor in the spread of AIDS in mainland China. Among China's 493 HIV carriers, 429 are in Yunnan Province and most of them are IV drug users (Zhang, J-P; Zhao). In an epidemological survey on HIV/AIDS done in Ruili, the rate of HIV infection among IV drug users has reached 67.98% (Zhang, J-P), even higher than in some western countries where HIV/AIDS is more serious than in China.

The above situations have aroused the greatest attention of the Chinese Government and appropriate controlling measures have been taken. The departments of social security and customs have intensified the work of seizing drug dealers in the border area, to prevent drugs coming into China, and at the same time have cracked down sternly on drug-taking and drug-dealing. The health department has set up three centres and several hundred groups to stop drug-taking where drug users receive treatment and rehabilitation therapy and are helped to give up their bad habits. It is reported that 19.6% of drug addicts have successfully broken their drug habit in these centres and groups since 1986. In Dehong Division, where Ruili is located, it is said that there were no new addicts last year and 31% of drug users have given up their bad habit (Liu, Y).

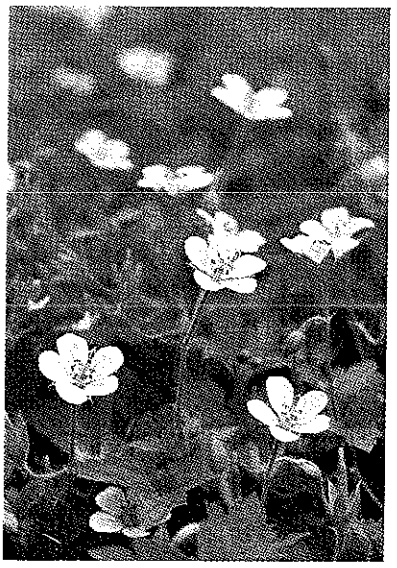
Besides strengthening the work of apprehending drug dealers and stopping drug taking, education and counselling is also practised. In Yunnan Province, many mass meetings and educational activities are held frequently; drug traffickers are publicly executed, and drugs, such as opium, heroin, and so on, are burned just like that day in 1839 when Lin Zexu confiscated opium from the British.

Narcotic drugs are quite evil in the Chinese mind. The defeat in the Opium War 150 years ago caused the Chinese extreme mortification and calamity. After having no drug abuse for 30 years, new addiction which has appeard in some regions in China can only shock the Chinese. Chinese people are paying attention to the causes of renewed drug abuse. In my opinion, there are several related factors.

The first factor is a social historical one. Before the 1949 Revolution, opium was produced in some areas, e.g. Yunnan Province. Although narcotic drugs are strictly controlled in China and no abuse is allowed, we still have been influenced by international narcotic production, such as in the country adjoining Yunnan, where the opium poppy is a main crop. When harvest time comes, foreign landlords used to employ hired workers from Yunnan and paid them opium. In addition, because of poor transportation facilities and the lack of medical care, many residents are used to treating their illnesses by taking opium. According to some reports, drug dealing and drug eating had never been stamped out in these areas. During the early 1980s, Deng Xiao-Ping's open-door policy permitted the re-establishment of legal trade in the border areas. Thus, some drug merchants smuggled narcotics into China and caused some Chinese to become addicted.



The second factor is the result of changes in values. When he talked about the Chinese experience with the success of the anti-opium campaign after 200 years of epidemic national narcotic addiction, Lowinger mentioned the importance of changes having occurred in the value system in youths, " so that there was no new supply of addicts " (Lowinger). The resurgence of drug addiction is due to the same reason but in reverse. After implementing the policies of reform and open door, China opened her door to the whole world. With the introduction of western culture, science, and technology, social illness also entered and mixed with Chinese tradition. A great deal of new information confuses some people, improper guides to consumption leads to competition and increased consumption, and the imbalance of income causes changes in social class. As their income increased, some people, the majority of whom are workers and farmers, fell into drug addiction step by step, and this affected others.



Other factors are the negligence of administration and the delay in reaction. Although the Chinese Government reaffirmed the existing decree banning drug-taking and drug-dealing in the early 1980s, Chinese administrative officials neglected to take appropriate precautions against drugs at the beginning of the re-emergence of narcotics. To a certain degree it caused the spreading of drug abuse. Fortunately, it has been paid attention to by the central and local governments, and the control measures have been strengthened.

There are still many problems existing in this field. The first is in the legal aspect. Although the Chinese Constitution and the Chinese Criminal Law stipulate severe punishment for smuggling, dealing, transferring, and producing narcotics, including capital punishment, there are some provisions which are too inexact to use in a country where written law is used. For example, the Criminal Law stipulates that offenders guilty of drug-related crimes can be sentenced to imprisonment for more than five years or to supervision. " The Resolution of Banning Narcotic Drugs, " which was passed by the Chinese Standing Committee of the National People's Congress on December 28, 1990, provides drug-related offenders with imprisonment for 15 years to life, as well as capital punishment. This frustrates the control of drug abuse in China, so there are some people who claim for clear stipulations (Wang, S).

Another dimension is the ethical one. It is true that no ethical controversies have been raised in China. Even many family members of drug abusers ask the administration or security to punish their relatives and correct them. China has been a Confucian society for more than 2,000 years, and the emphasis has historially been on the collective interest rather than on individual rights. Chinese regard drug addiction not as a social catastrophe but an individual problem. Drug addicts were formerly called " Opium Ghosts " and now in Yunnan are

called " Ghost No. 4 " because most of them use heroin No.4 via intravenous injection. They are discriminated against in various ways, and some addicts lose their employment. A lot of addicts have been treated in medical centres, but due to public opinion and discrimination, some of them have acquired this bad habit once again after their rehabilitation. Some medical centres refuse to accept addicts with STD (Sexually Transmitted Disease) (Zhang, X).

Some Chinese writers think that compulsory means is the only way to make addicts give up their bad habit (Wang, Q). They say that mandatory measures could be called " inhumane humanitarianism, " but they are in the best interests of addicts. But I think there is a great difference between drug users and drug dealers. We should give more help and education to the abusers, and treat them as patients whose rights and dignity ought to be respected.

Because narcotic drugs have been forbidden for 30 years and the reemergence of drug abuse has only been in a comparatively small region up to now, we still lack the experience to deal with contemporary drug problems. It is quite a new problem to Chinese ethicists and social workers. We earnestly hope that we have opportunities to exchange opinions with foreign colleagues. If global cooperation is formed against drug abuse, I believe, our goal of controlling drug addiction can be attained.

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References

Bai, Shou-yi, ed., *An Outline History of China*, Foreign Languages Press, 1982, Beijing

Fan, Wen-lan, *Modern History of China*, People Press, 1955, Beijing.

Gibney Jr., Frank, *Death is the Best Deterrent*, Newsweek, 1991,10,14

Gu, Ying-qi, *Resolutely Oppose Narcotics Abuse and Preserve People's Health*, People's Daily, 1990,6,26.

He, Jie-sheng, *The Management of HIV Disease in China*, Sino-American Symposium on Management of HIV Disease, 1990,11,8.

He, Jin-wu & Xiao, Liang, *Warfare of Banning Narcotics in China*, Worker Daily, 1991,9,8

Liu, He-ping, *Contest Between Good and Scandal*, Legal Daily, 1991,6,25

Liu, Melinda, *The Course of "China White."* Newsweek, 1991,10,14

Liu, Yuan-da, *Fight between Human and Demons*, Economic Reference, 1991, 5,4.

Lowinger, Paul, *The Solution to Narcotic Addiction in the People's Republic of China*, in National Drug Abuse Conference, Inc , Critical Concerns in the Field of Drug Abuse, pp. 1362-1374, Marcel Dekker, Inc , 1976, New York

Qiu, Feng, *Banning Narcotic Drugs in China*, Hainan Daily, 1991,4,10

Wang, Qin, *Alarm on Drug Abuse*, Chinese Electricity, 1991,3,23

Wang, Shang-xin, *Legal Issues in Banning Drugs*, Legal Daily, 1990,10,22

Wang, Su-ping, *A Report Comes from Yunnan*, Health Newspaper, 1991,6,25

Yao, Wei-yuan, *A Study of the History of Opium War*, New Knowledge Press, 1955, Shanghai.

Yin, Hong, *Sciences Can Save Drug Addicts*, Science & Technology Daily, 1991,1,6

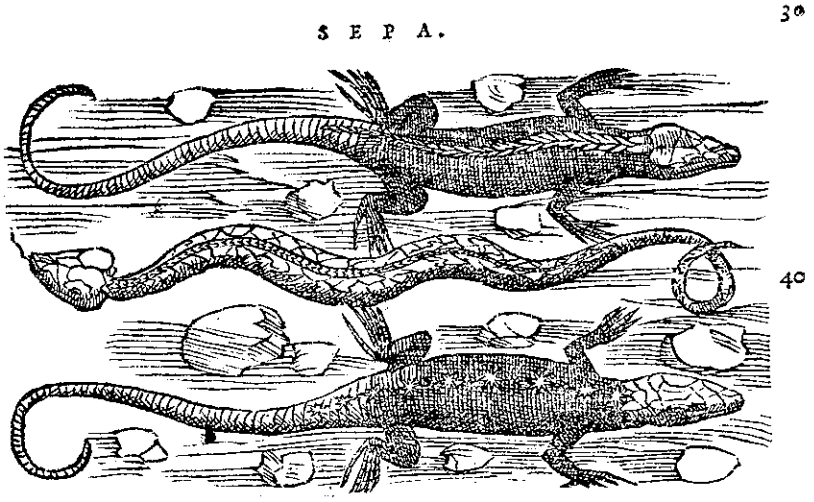
Yuan, Meng-de, *Drug Addiction in Youth*, China Youth News, 1991,3,29.

Zhao, Shang-de, et. al, *A Report on AIDS Monitoring in Yunnan Province*, AIDS Bulletin, 37, 1991

Zhang, Jia-peng, et al., *Survey on HIV Epidemiology at Ruili County in Yunnan Province*, AIDS Bulletin, 37, 1991

Zhang, Ju, *AIDS in the People's Republic of China: The Present Problems and the Future*, Future and Development, N° 3, 1991, pp. 43-47

Zhang, Xiu-jin & Ma, Yong-mei, *Banning Narcotics in Yunnan*, People's Police, 1991,6,21



GONZALO HERRANZ

Alcohol, Drugs, and Anti-Life Mentality

Introduction

The topic of my paper is very similar to that of the Conference I am sure that the theme will be treated thoroughly and with great authority in the communications and Round Tables of our meeting. I will only try to sketch in the situation.

In my opinion, two aspects should be pointed out in this preliminary reflection First, we have to understand the enormous dimensions of the problem which we are going to analyze: alcoholism and drug addiction are not only an important manifestation of the anti-life mentality; they are a tremendous instrument of death. The cruel language of figures of mortality and economic cost proves that. The second point concerns the elements of the anti-life mentality and the relationship between this mentality and the phenomenon alcoholism-drug addiction.

The following reflections should be set against a backdrop which we must never lose sight of: the great number of human beings who are agonizing at this moment, hurt by alcohol or drugs; who are living at this very moment their last minutes of life. They are dying, one or two every minute, in a march which continues night and day; victims of what is called drug abuse in the epidemiological manuals. However, in reality it is not a chemical intoxication which is killing our brothers and sisters. They pass away as an effect of a strange and paradoxical cultural syndrome. Though it is as old as mankind, this syndrome had never hurt humanity in the way it does now: the anti-life mentality.

1. Alcoholism and drug addiction as a quantitative expression of the anti-life mentality

It is difficult for a sane person to understand the extent and intensity of the suffering that others inflict upon themselves by alcohol and drugs. It seems such an absurd and senseless thing to do For the sane man, his life is, with all its crises and hopes, the most important fortune, a treasure which God has given to him as a present; a wonderful gift which must be loved and protected. The sound man knows that only by respecting his physical life will it be possible for him to realize his personal adventure, to write the biography which God has entrusted to him. This is the reason why the sane man finds it strange and incomprehensible that another man, facing the absurdly irresistible fascination of alcohol and drugs, throws his own destiny out of the window, destroying his life and at the same time the imago Dei he bears. No one, not even a poet, will be able to describe, in its interior process and its external causality, the catastrophic vertigo of only one of these personal tragedies. Thus it is difficult for us to understand what is really going on when an individual human being is attracted and then caught in the labyrinth of drug addiction; though we can try to extend our capacity of understanding by loving. But the difficulty is superior if we try to comprehend the massive qualitative and quantitative dimensions of the global phenomenon of alcoholism and drug addiction. This absurd total sum of poor human beings is beyond comprehension: every victim has a name and his own terrible share of misfortune. In order to handle the problem, we have to make use of cold and abstract figures. Only by the methods of Epidemiology can we measure the morbidity and mortality caused by these autoaggressive ways of acting. But then the figures and statistical analysis we use may conceal the individual and collective human dimension of the problem, making it even more inaccessible behind the half truth of mathematics.

It is well known that alcohol and drugs are an important cause for premature death. If we add up all its lethal effects, alcohol appears in the death cause statistics of the developed countries immediately after cardiovascular illnesses and cancer. But probably this reduction of life expectancy, this anticipation of death is not the worst: alcohol and drug abuse lead to a progressive biological deterioration, impoverish the quality of physical and spiritual life. Alcohol and drugs are an expression and, at the same time, an instrument of the anti-life mentality.

Something very important and significant could be noticed at the beginning: women are particularly sensitive to the immediate effect and to the accumulated damage produced by alcohol. The death rate of alcoholic females is much higher than that of nonalcoholic women or alcoholic men. Alcohol abuse affects humanity thus in a special way: femininity as a biological reality and a particular personal value.

Furthermore, alcohol and drugs are particularly harmful to prenatal life At the social-cultural level it can be observed that self-isolation, which is very typical for addicts, al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so includes a reduction of interest, which concentrates only on the immediate, the ego, the present day. The addict undoes his bonds with others and the future. Many addicts think that under these circumstances they had better not have children. From the biological point of view, alcohol and drugs are very aggressive poisons for prenatal life. Other speakers will talk about the alcoholic-fetal syndrome and about the effects of drugs on the fetus and the newborn.

Alcohol and drug abuse during pregnancy leads to serious risks for mother and baby. The extreme sensitivity of the human embriofetal organism is proved by the fact that one glass of wine or liquor consumed daily during pregnancy is enough to cause a diminution of weight and retarded development. Moreover, alcohol or drug abuse leads often to a negligence of prenatal hygiene; the mother cares less about healthy food, may suffer from anemia. Spontaneous abortions and premature birth are very frequent in addicted women; they often neglect the care of the baby. Since the percentage of sexually transmitted diseases is higher in alcoholic and drug addicted women, their babies are frequently already affected by these infections. Indeed, HIV infection of mothers, drug addicts or not, is one of today's most distressing aspects of AIDS epidemiology. Unfortunately, all these problems can be found among certain groups of young people, where they are interrelated with precocious sexual activity, pregnancy, and use of alcohol and drugs. The anti-life character of alcohol and drug abuse is dramatically expressed in suicide. The relationship between personality disorders, drug abuse, and the threat, attempt, or execution of suicide is very complex. The old idea, which says that alcoholism or drug misuse are nothing but a surrogate of suicide, a chronic suicide (the reason why alcoholics and drug addicts commit suicide very seldom) is thought to be wrong today. Some studies carried out in different countries during the last years using strict methods have revealed and quantified the existing relationship between alcoholism or drug addiction and suicide. A great number of suicides (between 15% and over 50%) had alcohol or drug problems. The relationship is especially evident in cases of juvenile suicide. In some regions, more than 50% of the young suicides had been diagnosed as addicts (alcohol, cocaine, and marihuana, often combined), an addiction that could last several years. Alcohol and drug addiction are considered today, alongside with psychiatric disease and marginal behaviour, one of the most reliable factors that reveals the risk group for suicide among adolescents, young people, and adults.

Moreover, violence caused by alcohol and drugs destroys many human lives. We all know the situation on our streets and highways. According to very exact and reliable studies, though still not perfect (because the study of alcoholism is only made on a small percentage of car accidents), one out of five car crashes is caused by a drunken driver. But, and this is more important, these accidents tend to be more disastrous, because they are responsible for a quarter of bad casualties and half of the dead caused by car accidents. This leads to an annual figure of 20,000-25,000 dead caused by alcohol in the United States and about the same number for the European Community.

Alcoholism and drug abuse are also an important cause for a great many homicides. Though murder is a highly complex phenomenon, with differences that vary greatly from country to country, it has been noticed during the last decades that criminality linked to alcohol and drugs has increased considerably in the whole world. In the northern countries, for example, the figures are devastatingly eloquent: it has been observed that since the sixties two thirds of murderers and victims in Finland, Iceland, and Greenland had been under the influence of alcohol at the moment of the tragedy.

How many human beings are killed every year by alcohol and drugs? It is impossible to give a precise and reliable figure. The most careful assessments we can make use of come from the United States. In 1980, the number of dead caused by alcohol abuse was 69,000, while drug addiction, either by accidental overdose of psychoactive drugs or homicide related to drugs, cut

down about 6,000 persons. Hence, more than 75,000 people died annually ten years ago in the States as victims of alcohol and drugs.

It is very difficult to assess the economic cost of the pandemic alcohol-drugs. In the United States, the direct cost of addiction treatment consumes more than one eighth of the total budget that is allocated to Health Care. If you sum up the direct cost (medical treatment) and the indirect ones (loss of productivity, material damage, and others), the price which American society had to pay for alcohol abuse in 1980 amounted to 116,700 million dollars, and 4600 million dollars for the abuse of other drugs. I confess that I am not able to comprehend these figures.

The data on mortality or economic cost in the United States could be extrapolated worldwide to obtain an incredible sum of wasted money, and unlucky, fruitless lives, not able to make efforts. And finally, the incredible number of premature deaths. I said at the beginning that every minute somebody is dying of this plague. The whole world should be dressed in mourning and cry out of grief. However, it is strange that this fatal bleeding is witnessed passively; it does not bring out social pain. This scandalous toleration can be easily explained: the anti-life mentality has become deep-rooted in our world.

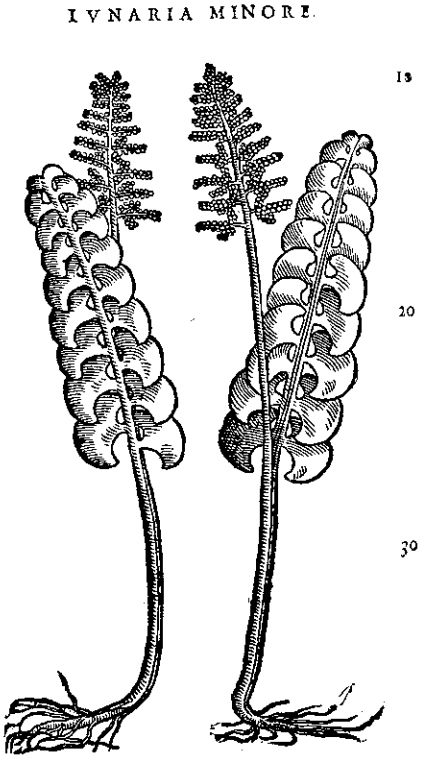
2. The anti-life mentality and its elements

As something negative, as an aversion and refusal of the good of life, the anti-life mentality is based on a selective ignorance, on the wish to know nothing about life. To destroy one's own life by drugs or alcohol or to view with indifference the way life is oppressed by others means to have a poor knowledge of what human life is and its value. It is a cultural phenomenon, covered by a conspiracy of silence. Today, a majority is intimidated by the dominant currents of opinion and has less sensitivity and conscience regarding the significance of life. Most people are not curious about the meaning and finality of life and have adapted gregariously to the permissive customs and rules of advanced societies. They have assumed the anti-life mentality by osmosis, because they simply do not want to know life, refusing to reflect on it, on its mysterious character. Far away from God, lacking transcendent destiny, man's life has become an irrelevant routine, corresponding to the "official" version. The behaviour of many people has been formed by the influential culture of death.

In the standard education of modern man, teaching about life has completely disappeared. Incomprehensibly, in these times without prejudices, the question about the significance of human life has become a tabu, excluded by general education. It is part neither of elementary biology courses nor of secondary education. It does not appear in the academic curriculum of the university departments of Philosophy, Law, and Medicine. Sometimes man is just presented as the great polluter of a green, happy world.

If we asked the man in the street what he thinks about his own life, we probably would be shocked by many of his answers: because of their onedimensional, tautological, rudimentary character; poor in content and meaning. They are not open to a transcendent dialogue with the Lord, and do not even respect the dignity of the body. The Fifth Commandment, which obliges us to respect our body, with its viscera, skin, and bones, is completely ignored. The anti-life mentality finds fertile soil in this specific dullness of today's man, characterized by an almost unlimited capability for technical/biological details and the simultaneous dimming of the intelligence for what is essential and basic. In a world where economic reckoning occupies much time of the interior dialogue of each man and his conversation with others, nobody worries about the non-economic value of human life.

This mentality is due to a great number of factors. First of all, information. Violence only causes direct victims of wars, street-fighting, arbitrary agression. All of us are affected by an indirect phenomenon: saturation of information on violence. We are getting accustomed to seeing others kill. Every day, when we read the papers or watch the news on television, we witness an



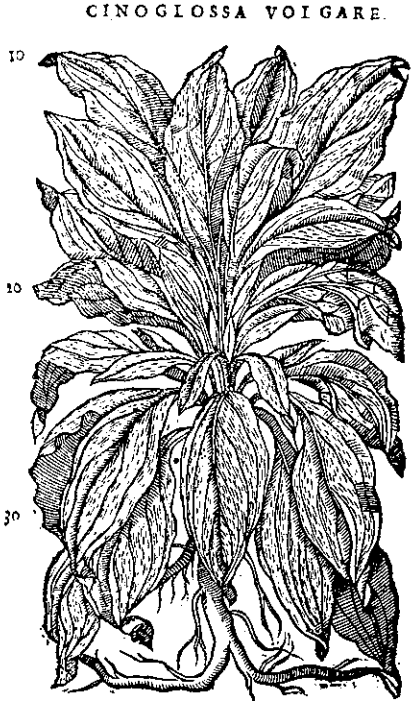
endless march of dead: catastrophes, car crashes, victims of terrorism or civil war, urban violence, malnutrition, famine, drugs: an infinite number of human cadavers, anonymous, phantom-like, faceless.

In the mind of the man in the street, dulled by information and satisfied by the quick interpretation given by the commentator on duty, esteem for life has decreased because of the simple reason that it is impossible to have so much compassion. Today, no one has time for mourning or for reflections on death, because one news item is followed by another that requires our attention. And no dead person is important enough, as no multitude of dead is big enough, to be "up-to-date" after the few official hours of mourning, after the few minutes of the news' transmission, which is more a rethorical exercise of images than a human message of mourning. Death has been trivialized: this is no longer mystery or destiny. It has become simple, short-lived news. Death is no longer a help to comprehend life. Thanks to the information which is served to us daily, we have become accustomed to death: we are able to swallow massive doses of death without suffering disorders. There are just too many dead.

However, the number of living humans is also too big to attach significance to the life of the individual. The neo-Malthusian dogma, which is conditions the mentality of the leadership minority and of those who are the majority in the opinion polls, reduces our identity to "being a multitude," a crowd that is going to have critical dimensions. For the neo-Malthusian superstition, many indeterminate, statistical people are a threat. It would be better if they did not exist, because they are superabundant. The consequence is the idea that those who have been conceived with the stigma of not being desired can be eliminated by abortion; and those who are born without being desired, can be mistreated. The theory of an insupportable overpopulation on this planet leads directly to the pessimistic conclusion that the life of many unproductive or unhappy individuals is superfluous or lacks significance and quality—therefore euthanasia would be its adequate destiny.

Since billions of people live on the Earth, the individual life is transformed into an insignificant magnitude, impossible to perceive. For the anti-life mentality, a single person is a minimal, infinitesimal, mathematically despicable fraction of humanity. The death of many, the sum of countless infinitesimals thus becomes a positive quantity. The terrible account of many years of lost life due to premature death, of lives which are deliberately not conceived by means of contraception, of the lives aborted before being born turns out to be a profit. The anti-life mentality claims to be a safety-valve for overpopulation pressure, but it does so with the cruel egoism of turning it back on the individual person.

The sensitivity to life is lost. Nowadays, very few talk about the miracle that every human being is, about the miracle that all of us who live on the Earth represent. The egoist, totally obsessed by the things which can be possessed and enjoyed, has become blind and cannot perceive the others. People are judged by what they have, not by what they are. Very few realize that every human being, the mentally deficient included, is a universe, a microcosmos which perceives, interprets, thinks, and constructs the world in his own personal way, which is original, unique, unrepeatable. The miracle of human individuality lies in the genoma of every person, the DNA that everyone receives from his parents; that is to say, a special and unique set that differs from that of other people. It is wonderful that everybody is able to comprehend and to love this world and to enjoy it in a completely personal way. Everybody has got in God's eyes a destiny, a biography, a soul to save. But this has a price which many people are not will to pay. The responsibility for oneself—before oneself—, but also before others and before God has become a burden which is too heavy for a large part of the population. It is easier to deny oneself instead of repenting and changing behaviour. People are living the fragmented and anonymous existence of a stranger.



A very efficient way to facilitate the process of becoming a stranger is the practice of psychotrophic hedonism. Alcohol has always been used to forget troubles and to get rid of bad memories. More and more "normal" people, facing daily stress and tensions, use alcohol or tranquilizers in order to get the necessary "energy" to cope with their professional duties or to free themselves of anxiety or insomnia. The sales rate figures of alcoholic beverages and psychotrophic drugs reveal the tremendous spread of alcoholic and pharmacologic addiction and prove the increasing intolerance against the harshness of life and against the small symptoms of emotional stress.

A reductionist view of science has contributed to the consolidation of the anti-life mentality, because now its life model is not only an excellent resource for the laboratory: it has started to explain people's daily life: everything in us is physical-chemical, man is molecular; morals are a question of synaptic transmitters. The consequence is that chemistry occupies the place of virtue. Alcohol, psychotrophic substances, and soft drugs play an ever more important part in the emo-

tional, intellectual, and ethical life of many people. Killing emotions or procuring pleasure, the molecules and substances are getting possession of many lives. Pharmacoaddiction is also, from this point of view, a very dangerous phenomenon. Its social spread and close relationship to drug addiction are not to be interpreted as merely commonplace epidemiological factors: in a certain way they prove that man's identity is undergoing a mutation. A new kind of man is emerging—a person who conceives himself as a "mechanical" molecular complex. The mechanistic mentality believes that man's life can be explained in terms of molecules, mechanisms and dead elements. There is no place for freedom: everything is reduced to molecules.

With the increasing perfection of decoding the complex chemical language of the neurotransmitters, of their agonisms and antagonisms, of brain topography, and growing mastery of the art of designing, the molecules which modify humor, emotions, and state of mind, opportunities and risks will emerge simultaneously. Better opportunities as far as the treatment of mental diseases is concerned; risks of even more aggressive or sophisticated forms of psychopharmacological hedonism, of personality manipulation. The alcoholic and the drug addict will be at ease in a society of this molecular vision of man, because life and death are then a mere question of molecules.

Maybe I overdid my futuristic description of the anti-life mentality, drawing far too dark a picture. Above this dark horizon, our pro-life faith must shine: to hope against all hope, the "motto" of the Epistle to the Romans, must inspire our work, today and forever.

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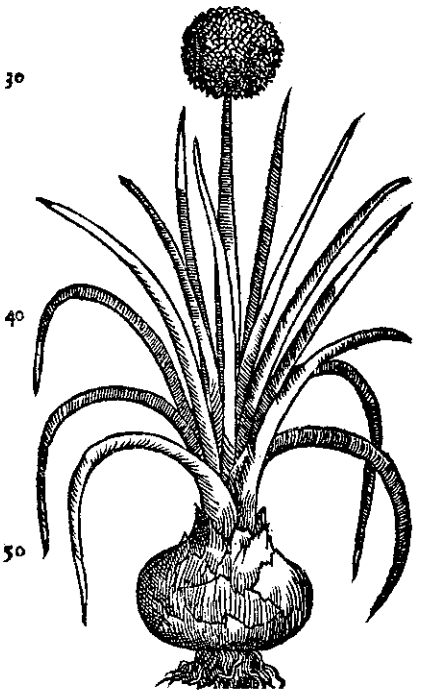

ELIO TOAFF

Convergence of Religiosity and Spirituality for the Dignity of the Person

The problem we are discussing in this conference is not new for the religious experience. Unfortunately, the dimensions and the importance of the problem are new and almost leave a sense of impotence, cast doubt on values, and impose revisions. But just in these situations an experience of thousands of years has to bring help and guidance. Our religions have faced the issue already since their beginning —let us only think about the story of Noah—and they have given exact answers. Thus, for a long time the problem has been faced and settled, and we almost forget that really the most ancient but still so dangerous drug in our geographic area, alcohol, has its defined, positive, and sacred part in the religious rite, beginning from Judaism and going on with Christianity, that has also drawn also this detail from the Hebrew pattern. Perhaps this sacral use is a sign of the bivalence of symbols and of the possibility to inverting the perspectives, which is the key to the religious answer to the problem. Let us try to find the right answers in the tradition that is so ancient and firm. What can a religious experience give in exchange for this or what else can it offer? The key to the answer is in the concept of human dignity, as the title of this paper underlines.

The beginning of the Book of Genesis narrates the creation of the human being as the crowning act of creation. It is a story that offers endless reflections, and every detail suggests several observations and deductions. In the rabbinical interpretation of the text, the uniqueness of the first man proposes some basic considerations among numerous suggestive details. The rabbis ask themselves (in the Mishná of the treatise on Sanhedrín) why the Bible wanted to tell that man had been created on his own? The answer is, in order to teach some fundamental principles. The whole humanity has been created by one man, therefore every man is potentially the origin of the whole world. And thus, if somebody destroys only one man, he destroys the whole world, whwereas somebody who saves only one man saves the whole world. And again all this explains the gratness and the superiority of the divine plan, according to the rabbis. When a man uses a stamp he can create many prints but they are all the same. In contrast to this, the only divine stamp—Adam—continues to produce prints that are all different one from another. Therefore every single man is an individuality with an unrepeatable and irreplaceable value. Thus the masters conclude: every man has the duty—be carefull: the duty, not the faculty—to say that the world has been created for him. Again: creation is unique in order not to give the world's nations the possibility to claim " my father is greater than yours. " And in order to avoid that the right ones say they are right because they are sons of the right ones, and that the wrong ones are sons of the wrong ones. At the beginning there is the same capability for all to choose between right and wrong, as they are human beings.

With this firm and unmistakable message hebraism faces the issue of man's dignity. This analisys is integrated with the remarks on another basic element that is described in the beginning of the Genesis: man is created in God's own image and likeness. In order to avoid that this may be taken for an abstract concept, the Genesis repeats this expression in the first formulation of the law against murder. Who sheds human blood will be punished, just because man is a divine image. The defence of dignity does not stop at this point. The concept returns as an implicit justification in other circumstances, and there will be enough comments that underline this relationship. It is, for example, the prohibited (in *Deut.* 21:23) to leave the executed man's corpse exposed " because the hanging corpse is an offense to God " (this is a well known rule also because it finds application in the Gospels). There is still another rule, in *Deut.* 25:4, that limits the possible excesses of the corporal punishment imposed by the court to fourty lashes, and this just to avoid that " your brother becomes mean in your eyes. " The divine image is not a theory, but a juridical reality for the protection of mankind. Obviously, this topic gets a deeper treatment in the philosophic reflections. Referring to this subject, we may indicate three main lines in the Hebrew thought. The first line identifies human superiority and dignity in intellective capacities. Whereas a second line pays more attention to the problem of man's will, the possibility to choose between good and evil, with the result of raising and lowering man from one extreme to the other. Dignity becomes a matter of choice, a challenge to grasp in every moment. In the mystic reflection this solution gives an even larger third line, because it is thought that every human action has an effect and influence that go beyond everything that our mind

may imagine The choice of correct behaviour restores and creates this world and superior worlds, whereas the wrong choice destroys material and spiritual realities. The mystery of man's greatness and dignity has its roots in man's responsibility.

The religious authorities of Judaism expressed their opinion on the drug problem starting from these preliminary remarks, trying to explain in current terms why there is a complete and incurable refusal and opposition. A first distinction concerns the danger for physical and psychological life and health, which is a real consequence for the most part of drugs. We have seen how human life is considered. To this we must add the basic principle that we are not the masters of our body, that we cannot use it as we like, but that we have the duty to protect and preserve it. Our body is like an instrument we can dispose of for certain purposes, but we can be called in every moment to give justifications for it. As we can see, there is a religious perspective. It is considered a divine gift—or more exactly—a divine loan to man, but all this does not lead to an alienation or reduction of values, but, on the contrary, to the defence of its integrity and global quality. Going into details: Hillel said that washing oneself is a defined religious duty He explained it with a parable: in the royal gardens there is always somebody who cleans and takes care of the emperor's statue; if there were nobody, it would be an insult to the emperor. In a different way, but with more justification, we have to take care of our body because it is God's own image and likeness. More subtle, but no less important, are the reflections on drugs, if we leave aside their materially harming effects. It is because of the dignity that derives from being a divine image that taking drugs is considered a violation of the sacredness of human capacities. As an imitation of his creator, man has to be alive, active, and creative. Drugs produce in man passivity, renunciations, reduction in concentration, false creation, and escape from reality Who ever is seeking drugs and the seduction of immediate sensuality violates the prohibition of " deviating from one's own heart and sight " (*Num.* 15:39). There is the risk of putting oneself in a position where the destruction of free will and loss of personality are imminent. The capacity of free choice, the central element of human dignity, is lost. Drugs are also a symbol of a hedonistic culture, of a new idolatry, and as a result are incompatible with the essential values of a pure monotheistic religion. The ecstatic experience that might be sought in drugs is also alien to Judaic religious belief. The union with the divine reality is not only the knowledge of a sacred mystery, but also the discovery of a system of life and behaviour that has divine origins. The aim of the traditional rules is not flight towards the heights, but the sanctification of present life. The mystical tradition also agrees with this position. There is no access to the realm of thought of the *qabbala* if before we have not become masters of the *halakha*, of the right behaviour. There are no easy shortcuts. The ideas about the role of man in this world and especially about his ascetical life are very different in Judaism and Christianity, but they certainly agree on excluding pharmacological shortcuts and irresponsibility.

I would like to end my report with a hint given by a strange *midrash*, a rabbinical interpretation that uses a play on words in order to express a basic and provoking idea. Talking about the relation that the community of Israel has to establish to its *Torah*, the divine precept, Deuteronomy (13:18) orders: " You shall put my words on your heart and on your person. " The expression " you shall put " in the Hebrew language is *wesamtem*; for the rabbi of the Talmud, it sounds with a slight difference as if there were written *wesam tam*, which means " it is a medicine, a simple and perfect drug. " Thus, in this interpretation the divine precept becomes a positive and eulogistic metaphor of the perfect drug. *Torah*, therefore cures everything, and this has to remind us of the same metaphor, but with an opposite and defamatory sense proposed in the last century: " Religion is the opium of the nations. " This assertion sought to indicate the role of religion in appeasing the conscience of the exploited classes in order to make them accept their conditions. The destiny of Judaism is a very odd destiny: every new, important religious or political system that in some way had drawn its roots from Judaism thought it necessary to pull them out as violently, as unjustly, judging them infamous A solid point of Hebrew doctrine today is the constant and passionate attention drawn to the problem of social justice, which is an important element of the defense of human dignity. This attention is expressed in the social legislation of the Pentateuch —a part of the " Law " that has been considered obsolete and abolished—and thus it is a solid and protected element in the prophetic literature, exactly applied in rabbinical law in order to be transformed into an imperious, characteristic, and inherent necessity of the historical and religious past of every single member of the community, at any time and in any place Now, this defence of human dignity draws its origins and its strength precisely from the religious relation of faith in God and from the capabilities God has given to man in order to form himself and society. All these elements put together make up the simple and perfect medicine humanity needs. Let us end with the words of the prophet Michea (6:8): " I tell you, man, what is good and what God wants from you: to practise justice, to love solidarity, and to go on with humility with your God. "

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JOHN HAAS

Sobriety: Challenge to the Culture of Pleasure

The human person is a dynamic unity of powers and capacities naturally ordered toward the integration of the self in relation with others. The result of such integration is human happiness. The virtue which assists in achieving this interior integration is, of course, the virtue of temperance.

The natural appetite of which temperance is the perfection is, as we know, dynamically ordered to the goods of food, drink, and sex. In other words, temperance is the perfection of that appetite which constitutes our basic orientation toward those sensible goods which are necessary for our own preservation and for the preservation of the species. We see immediately, therefore, that this appetite has a profoundly personal *and* communal dimension, for food and drink are necessary for preserving our own lives while sex is necessary for preserving the race. As St. Augustine said, "What food is to the health of the human person, intercourse is to the health of the race."[1]

Since this appetite is associated with obtaining those things necessary for our individual and communal existence, we can see that temperance must consist in an established, well-ordered use of the appetite, not its non-use —and certainly not in an attempted suppression of it. The task of temperance is, in the words of the German philosopher Josef Pieper, "to dispose various parts into one unified and ordered whole."[2]

But the particular character of our basic appetite toward sustenance and sex is such that it has the exact opposite effect of self-preservation if a person becomes fixated on the appetite and the goods toward which it is ordered in isolation from the totality of the nature of the human person. If we become preoccupied with the goods of food, drink, and sex, the very end or goal which the appetite serves will not be achieved. Indeed, as the spiritual writers have cautioned throughout the centuries: when our natural disposition toward the most basic goods needed for our self-preservation becomes disordered, that disposition becomes ultimately destructive.

People endanger their health through overeating or endanger their very lives through the disorder of anorexia. The wine which St. Paul tells us should aid digestion or which Our Lord showed us should enliven a wedding feast, can destroy marriages and families and lives when used in a hoarding, grasping, indulgent way. The sex drive which is ordered toward friendship and children and community becomes destructive and death-dealing when it is used for one's own gratification without a thought being given to its reasonable use as an exclusive gift for another which is to be placed at the service of the community.

Our cultural tradition since the time of the Ancients has taught as that a virtue is nothing other than a good habit which contributes to human wholeness and happiness. Such good habits are brought about through the repetition of wholesome actions until those actions become virtually second nature to us.

One of the fascinating facts brought to light by recent studies in the biological sciences is the extent to which the classical teaching of the virtues has a sound physiological grounding. Balance and equilibrium are necessary for the ordered functioning of the human organism. As the neurologist Dr. Gerald May points out, "All brain functioning, like the rest of bodily activity, depends upon delicate shifts of balance among chemicals, cells, and systems of cells."[3] The interaction of these various chemicals, cells, and systems of cells is incredibly complex. Because the body naturally seeks to maintain harmony, it will respond to chemical instrusions with counter-balancing chemicals manufactured by the body itself in order to restore harmony when it has been lost.

A change in even one cell has its impact upon the entire body. The full complexity of these cellular interactions is quite incredible. Estimates of the numbers of neurons within the brain range from ten billion to one trillion. Each neuron has an average of twenty thousand connections —or synapses— with other neurons; some have as many as two hundred thousand, so that the number of synapses within the brain may be in the realm of five hundred trillion. These synapses allow chemical communications to take place throughout the brain.

This communication is not simply one way, however. There is a mechanism known as *feedback* by which a neuron responds chemically to the messages it is receiving from another cell by stimulating, inhibiting, or facilitating the other cell's activity. A neuron does not know that it is receiving chemical messages from a source outside the body. It will simply respond as it normally does to maintain bodily harmony by transmitting its own chemicals to counteract the influen-

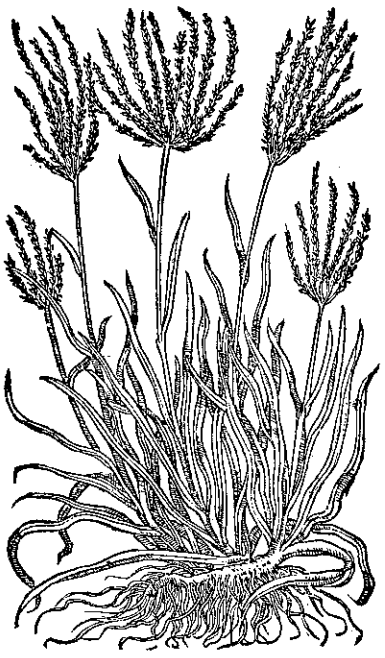
ces of the one it is receiving. It may adjust its level of production to compensate for excessive or insufficient amounts of the other chemical. When the other substance is suddenly no longer ingested, its absence throws the body out of harmony again. Tensions arise as the body seeks the accustomed levels of a given chemical. The individual wants to relieve the tension and stress through the ingestion of the chemical to which the body had adjusted and thus begins the addiction to the chemical substance. It is somewhat easy to imagine how such addictions can occur physiologically through the ingestion of alcohol or amphetamines or other chemicals. But the person can develop non-substance addictions as well as the body adjusts even to behavior and thought patterns.

In this entire physiological dynamic can be seen the basis for the classical moral teaching on the virtues and vices. It is of the nature of a virtue to assist in the integration of the individual. It is of the nature of a vice to enslave an individual to behavior which is ultimately harmful or even destructive of the self, behavior which leads literally to dis-integration.

What the biological sciences as well as our sacred Scriptures tell us is that we were created for a harmonious, well-ordered existence. In the words of St. Paul, " God has established a harmony in the body ... There was to be no want of unity in the body; all the different parts of it were to make each other's welfare their common care. "[4] God has created us for happiness, and the only certain way of obtaining it is by being true to our own natures as He has given them to us. We are not simply human beings as such. Significantly, we are *creaturae*, creatures. We have been created by God, and *as created* we have an intelligible nature. We are the result of the purposeful activity of an all-powerful Creator, and we must look to *Him* to understand *ourselves*.

Although we can come to know something of God in nature, His fullest revelation of Himself is in Jesus Christ. In fact, in Jesus God reveals to us not only Himself but also ourselves. As the Fathers of the Second Vatican Council make clear, " The truth is that only in the mystery of the incarnate Word does the mystery of man take on light. "[5] In Christ we see the perfect model of our humanity. And Christ has shown us that in living for others we come in full possession of ourselves. He showed us that the very nature of human existence is to be in a relation of self-donation to God and others. As Christ Himself taught us: " Only the one who loses himself can find himself "[6]

SANGVINELLA, OVERO GRAMIGNA CANNA.



It is true that one can choose not to live in this manner, which means that one is thereby choosing not to be happy. And indeed it is here that we seem to encounter the principal characteristic of contemporary materialistic societies under the sway of pleasure. In seeking pleasure above all else they ensure their unhappiness.

Living in secularized societies, we often become distraught over the decline in moral behavior. The preoccupation with sex, the addiction to drugs and alcohol, the numbing noise and exploding lights which violently assault all the senses in contemporary adolescent music are interrelated. However, these are not what ought to fix our attention. Rather, our chief concern ought to be with what all these cultural phenomena are manifesting. And it is this: we find ourselves in societies which are no longer able to acknowledge the true nature of things, i.e., they no longer acknowledge the world as " creation " and hence as intelligible and meaningful. Because contemporary cultures no longer acknowledge that there is such a thing as an intelligible human nature, they no longer know what to do with the life-sustaining appetite of which temperance is the perfection. They no longer know how to order the innate drive toward food, drink, and sex so as to yield sobriety and chastity, and, yes, happiness.

The former Communist countries which attempted to fashion social life on the basis of a militant, theoretical atheism have collapsed since they did not acknowledge the nature of reality, they did not respect humanity as *creatura*, as having been created by God and in His image. And in so far as the secularist, hedonistic societies today espouse a *practical* atheism, an *ignoring* of the reality of the Creator

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God, they, too, are destined to collapse in dissarray.

The secularist societies today may appear robust and healthy but because of the quest for unrestrained pleasure they are left agonizingly vulnerable Pius XII warned that a society sows the seeds of its own destruction when there is a " disproportion between the greatness of material and outward success and the weakness of inner values and their moral foundation. This disproportion always exists where public authority fails to recognize or repudiates the sovereigty of the supreme Legislator Who, if He has given power to the rulers, has likewise determined and set its limits "[7]

Modern secularized societies no longer acknowledge the nature of things as *creatura* and hence no longer understand the nature of the human person. The dynamisms of the human person are still there, of course— toward food, drink, sex, knowledge— but we no longer know what these dynamisms serve, we no longer know how they are to be integrated into the totality of the human person because we no longer believe they are ordered toward anything in particular apart from the gratification of the appetite itself. Consequently, we no longer know what to *do* with them. As the Fathers of the Second Vatican Council tell us, " When God is forgotten, the creature itself grows unintelligible "[8] Since we no longer know what to *do* with our natural appetites, and since the virtuous life results from *doing* ordered acts, virtue is lost.

With penetrating insight Josef Pieper refers to temperance as the discipline of *selfless* self-preservation Pieper does not say that it is simply the virtue of self-preservation, for this would not capture the full significance of this virtue and of our human nature, which it helps to perfect. If we try to use our life-sustaining appetite solely for our own gratification, only for the pursuit of pleasure, it will turn against us. This occurs because in using our appetite merely for our own gratification we misread, if you will, its very nature. We were *not* created for ourselves alone, but for God and for others. If we do not acknowledge this, we do not know how to be fully human

It is of our very nature to love God and to live for him, even more so than for ourselves. As St. Thomas puts it, " Since God is the universal good, and under this good both man and angel and all creatures are comprised, because every creature in regard to its entire being naturally belongs to God, it follows that from natural love angel and man alike love God more than themselves and with a greater love. "[9] A society which does not acknowledge the sovereignty of God, therefore, cannot establish a just and humane order.

In a provocative article Cardinal Josef Ratzinger argues that our intellectual tradition has not yet come adequately to terms with the implications for understanding the human person which are to be derived from the core dogmas of Christianity. As he persuasively argues, within our cultural tradition, we have actually come to our understanding of " person " by reflecting upon the nature of the Triune God and the human/divine reality of Jesus Christ. In the consubstantiality of the Godhead, for example, the Persons are constituted as their relations to One Another. As Cardinal Ratzinger puts it, " In God, person is the pure relativity of being turned to the other..... The Person exists only as relation. "[10]

We are also drawn to a clearer understanding of human personhood in the reality of Jesus Christ He is the incarnate Word, which *is* the relation to the Father and the Spirit. In Christ we see acted out in the history of our salvation that " being-with-the-other " does not cancel " being-with-oneself " but is indeed the manner in which one is " with oneself. "

Christ reveals to us who we are by showing us that we by nature are to be " for God and for others. " Consequently, even the perfecting of our most animal-like, life-sustaining appetite is to be for God and for others. Sobriety, for example, is good for ourselves, but even more so it is a gift from us to those whom we love. Temperance is the discipline of *selfless* self-preservation. Since temperance is concerned with the interior ordering of the individual, we usually think of it only in terms of the individual. But it must also be seen in its cultural con-

text. Just as no cells or system of cells within the body escapes the effects of an imbalance anywhere in the body, neither does the human community

The social costs of intemperance are enormous and have been seen from a global perspective at this conference. What is clear is that an intemperate culture of pleasure leads inevitably to a culture of death. The disordering of those drives intended for life brings death instead.

Health care providers must deal with the consequences of a society given over to pleasure at the expense of virtue. They have to deal with the consequences of substance addiction or behavioral disorders. Let us be realistic. We know that addiction and behavioral disorders will never be eliminated from society because of the nature of humanity, forever struggling under the effects of original and actual sin. But societies can be so fashioned that these dreadful disorders are minimized and virtue is fostered. There is a lot of truth to the claim that " a culture is a philosophy in practice .... "[11] The problem is that a philosophy which is not a sound one will not result in a well-ordered, wholesome society. In dealing with addiction health care workers are often treating the symptoms of a deep cultural illness. They can only do so much.

The ultimate solution to this dilemma must be provided by those institutions which provide a religious grounding for society. The task we face in our materialistic societies is instilling in culture once again an awareness of the true nature of things: i.e., that the world around us and the human person are creatures.

St. Thomas assures us that the general precepts of the natural law directing us to do good cannot be wiped out from the human mind. However, this is not true of the secondary precepts, which require a virtuous society if they are to be inculcated in persons. He tells us that, " (as to) the secondary precepts, the natural law can be blotted out from the human heart, either by evil persuasions, or by vicious customs and corrupt habits, as among some people, theft, and even unnatural vices...were not esteemed sinful. "[12]

When people do not live virtuously, disorder results. As St. Thomas points out, people may still desire to do what is right, but if they have given themselves over to actions which are objectively disordered, they will not even be able to see with clarity certain precepts of the natural law which ought to be known by anyone. When a society on a massive scale indulges the life-sustaining appetite in a disordered way, its communal vision becomes clouded. It no longer knows how to fashion its corporate existence. For example, a disordered use of the sexual appetite through fornication or contraception or homosexual activity will produce not only its own predictable tragic consequences, but will lead to confusion regarding the ordering of our lives in other areas as well. We cannot attack the problem of substance abuse without addressing the entire moral tone of a culture. Sobriety is just one of the specifications of temperance and temperance cannot be isolated from the other virtues.

When the members of a materialistic society no longer understand their true dignity as children of God with a supernatural destiny, they will not know how to order their personal or their social lives. We cannot be committed to vice in one area of our lives, such as sexual activity, and think it will have no ill effect on our trying to foster other virtues, such as sobriety or honesty or dependability. It is the supernatural vision which helps us keep all the virtues ordered rightly.

Our religious institutions have always served the good of the human person. For centuries they have provided on a truly monumental scale medical care, counselling, shelter, education, and advocacy for those in need. But religious institutions can provide no service to society which is more valuable, indeed more critical, than calling all its members back to the worship and love of God. Because human beings by their very created nature are to live for God and others, they become disordered when they lose the supernatural vision. We are told that a lack of self-worth and the absence of a sense of the meaningfulness of life often contribute to a person's falling under the addiction of drugs or alcohol or sexual prac-



tices. Without the supernatural outlook their lives are filled with an aching void crying to be filled. We know it can be filled only by God, for whom we have been created. Consequently, the greatest service which religious institutions can provide for overcoming the deleterious effects of the culture of pleasure is to point with clarity, with insistence, with persuasion to the God who is the Creator and Lover and Redeemer of us all.

The true challenge to the culture of pleasure can only be mounted by religion. And there is a particularly compelling example of the way in which human beings can order their often unruly life-sustaining appetite for a higher transcendent purpose. It is the practice of consecrated virginity found within the Christian tradition. Through this lifestyle there are those who witness to the world that the appetite directed toward the sensible goods of food, drink, and sex can bring a profound integration in personal life and contribute significantly to the social order by pointing society to the transcendent realm toward which it is ordered, under the judgment of which it stands, and in which it will find its final fulfillment.

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Notes

[1] St. Augustine, *The Good of Marriage* 16.18, CSEL 41: 210-211 (*Corpus scriptorum ecclesiasticorum latinorum*)

[2] Josef Pieper, *The Four Cardinal Virtues* (South Bend, Indiana: University of Notre Dame Press, 1966), p. 146.

[3] Gerald G. May, *Addiction and Grace* (San Francisco: Harper & Row, 1988), p. 72.

[4] I Corinthians 12:24.

[5] *Gaudium et spes*, 22

[6] Luke 17:33.

[7] Pius XII, *Summi Pontificatus*, 1931

[8] *Gaudium et spes*, 36.

[9] *Summa theologiae*, 1a, Q. 60, A. 5, *sed contra*

[10] Josef Ratzinger, " Concerning the Notion of Person in Theology, " *Communio* 17 (Fall, 1990), p. 444.

[11] James K. Feibleman, *Ontology* (New York: Greenwood Press, 1968).

[12] *Summa theologiae*, 1a-2ae, Q. 94, A. 6, *sed contra*.



L I · S T A
RERUM PETENDARUM
In visitationibus Officinarum Aromatariorum Urbis, & totius Status Ecclesiastici.

De quibus est solvenda pœna in eventum, quod dicti Aromatarii eas in suis Officinis, non habeant, nec propter hoc excludantur, quin aliæ res ad rem medicam spectantes peti possint, juxtà formam concordiæ inter Collegium DD. Medicorum, & Collegium Aromatariorum Urbis sub die 30. Julii 1576. ad quam recursus habeatur.

SIMPLICIA
Agaricus
Ammoniacum
Aloes succotrin.
Balsamum Copaivve
Bezoar occident.
Cassia
Castoreum usuale
Chinæ chinæ cortex
Galbanum
Jalappa
Ipecacuanha
Lignum Aloes
Manna
Myrra
Myrobolani citrini
Myrobolani chebuli
Opium
Rhabarbarum
Sandalum citrinum
Sanguis Hirci
Sassafras
Scammonium
Senna orientalis
Sperma Ceti
Spicanardi
Tamarindi
Turbit.

AQUÆ
Cardui Sancti
Cinnamomi destill.
Florum aurantiorum
Hysterica Quercetani
Scorzoneræ
Scordeon. Theriacalis
Totius Citri

CONSERVÆ
Acidi Citri
Rosarum
Violarum

CERATA
Diachilon magn. cum gum.
De Bettonica
Emollitus Calestani
Oxicrocum
De Ranis cum mercurio

ELECTUARIA
Confectio Alkermes
Confectio Hyacintina
Diacordium Fracastorii
Diatartarum Castelli
Lenitivum
Mitridatum
Requies Nicolai
Theriaca Romæ confecta
Tryphera magna

OLEA
Hypericonis comp.
De Nuce moscata
Scorpionum Matthioli
De Succino

PILULÆ
De Ammoniaco Quercet.
De Succino Cratonis
De Tribus cum Rhabarb.
Tartarea Scroderii

SYRUPI
Acetosus simplex
Altheæ Fernelii
Cicor. comp. cum Rhab.
Diamoronis
Florum Persicorum
Mel Rosarum Solutivum
Pomor. Simplex
Rosarum Aureus solutiv.
Rosarum Solutivus
Violatus coloratus

TROCHISCI
Alkandal

SPECIES
Stomachicæ Quercetani

UNGUENTA
Apostolorum
Basilicon magnum
Comitissæ
Pro Contusionibus
Populeon
Sandalinum
De Tutia

SPARGYRICA
Antimonium diaphoret.
Corallia rubra præp.
Cornu Cerv. philos. præp.
Diagridium
Elixir Propr. Helmont.
Elixir Propr. Paracelsi
Laudanum liquid. Sydhen.
Laudanum Nepent. Quercet.
Magnesia alba
Margaritæ præp.
Mercurius dulcis
Resina Jalappæ
Resina Scammonii
Sal Absintii
Sal Martis
Sal Prunellæ
Sal Tartari fixum
Spiritus Calchantis
Spiritus Salis Armoniac.
Spiritus Volat. Corn. Cerv.
Tartarum Vitriolatum

FINIS.

ANTONIVS PACE Protomedicus Generalis.
Marcus Angelus Marcangeli primus Consiliarius.
Franciscus Raynerius Perazzani secundus Consiliarius.
Antonius Leprotti tertius Consiliarius.
Placidus Gaudenzi Not., & Secr.
Jacobus Parboni primus Consul.
Honoratus Orlandi secundus Consul.
Ignatius Bassani tertius Consul.
Augustinus Vendetta quartus Consul., & Camerarius.

ROMÆ, Ex Typographia Reverendæ Cameræ Apostolicæ MDCCXLIV.

ROGER E. MEYER

The Concept of Disease in Alcoholism and Drug Addiction

Traditional definitions of "disease" in clinical medicine derive from 19th century views of descriptive pathology and discoveries in microbiology. This perspective was reflected in a mid-20th century definition of disease as "a definite morbid process having a characteristic train of symptoms," affecting one or more organ systems, whose "etiology, pathology, and prognosis may be known or unknown."[1] More recent perspectives on disease in medicine have been informed by our growing knowledge base in human and molecular genetics, molecular biology, and the interplay of individual risk factors inherent in heritable traits, the environment, and human behavior. Traditional public health perspectives, dating from the last century, emphasized a preventive focus which considered a vulnerable host (or population), a causative agent, and an environment which could enhance or reduce risk. Later, 20th century public health elaborations of prevention differentiated between primary, secondary, and tertiary prevention, and specified levels of intervention (universal, selected, indicated)[2]. Primary prevention was aimed at reducing the number of new cases of a disease through environmental (or other) manipulations which would reduce the vulnerability of individuals, or their danger of exposure to health risks. Secondary prevention was aimed at the early identification of diseases so as to facilitate effective and definitive treatment. Tertiary prevention was aimed at the amelioration of the chronic disabilities resulting from illness. The individualized focus of clinical medicine, and the population-based focus of the traditional and more recent public health traditions, have come together in the past 30 years in the focus on individual and population-based screening and intervention for hypertension, serum elevations in cholesterol, and other risk factors associated with the development of cardiovascular and cerebrovascular diseases. Research in many fields has contributed to redefinitions of "normal" and "abnormal" in individuals through different stages of the life cycle. (Hypertension and myocardial infarction were once considered normative problems of aging!). We now understand that human behavior can serve as a risk factor, as well as a lever which can be influenced to reduce heritable and environmental sources of risk of disease. In contrast, in the past, the case for intervention and the validity and reliability of disease-based diagnoses was most clear-cut where organ-based pathology could be most clearly described, where etiology was established, and/or at the end stages of illness where those who were clearly diseased could be differentiated from those who were clearly not diseased. The history of the concept of disease in alcoholism and drug addiction must be seen in the context of our evolving definitions of "disease" in clinical medicine, public health, and psychiatry since the end of the 18th century.

In a review written nearly 15 years ago, Levine traced the introduction of a disease-based model of alcoholism (or inebriety) to the triumph of the philosophy of enlightenment in the United States and Western Europe.[3] Consistent with the belief in the superiority of rationalism and the idea of progress which grew out of that philosophy, physicians and society as a whole came to regard alcoholism and insanity as curable diseases whose chief symptom was loss of control. The concept of alcoholism as a disease has been credited to the work of Benjamin Rush in the United States[4], and Thomas Trotter in Great Britain[5]. Slightly more than 200 years ago, Benjamin Rush identified alcoholism as a disease in which alcohol serves as the causal agent, loss of control over drinking behavior is the characteristic symptom, and total abstinence is the only effective cure. Throughout the 19th century, physicians in Western Europe and the United States elaborated on this disease concept, differentiating between alcohol addiction and the consequences of chronic alcoholism, while searching for and identifying clinical subtypes of the disorder.[6,7] Withdrawal symptoms, craving, and loss of control were considered the necessary components of alcohol addiction, while chronic alcoholism was defined as the physical and psychological changes consequent to the prolonged use of alcohol. Like the mentally ill, the recommended treatment for alcoholism involved long-term care in asylums.[7]

The public health ramifications of the disease concept of alcoholism should not be underestimated. The highest per capita alcohol consumption in the history of the United States occurred during the colonial and immediate post-colonial periods.[8] Societal efforts to reduce public drunkenness resulted in a dramatic decline in per capita alcohol consumption between 1810 and 1830.[8] While these efforts were

not inconsistent with the disease concept, they were also driven by a zealous moral concern, with roots in some Protestant denominations, that fueled the American Temperance Movement. The latter grew in strength during the 19th century, focusing its goals on Prohibition. Commencing in the last quarter of the 19th century, temperance ideology began to shift from a concern about addiction to a concern about alcohol's influence on accidental injury, crime, labor unrest, and political corruption.[9] With the implementation of Prohibition as the law of the land in the 1920s, per capita alcohol consumption reached its lowest point in the history of the United States, with a consequent decline in the prevalence of the health-related consequences of alcohol addiction.[10] In this story there is a paradox. On the one hand, the disease concept and the anti-alcohol ideology of the Temperance Movement represented antithetical constructs. On the other hand, they both traced their lineage to the work of Benjamin Rush, and at some levels, they served to reinforce each other. The medical historian, Iago Galdston, has written, "... as in the case of alcoholism, the venereal diseases, obesity, and other diseases, numerous issues acquire moral significance precisely because they are medically urgent."[11] While the disease concept had originally been formulated for alcoholism, it was also applied to opiate addiction[12], and later to cocaine[13].

In this century, the problem of addictive drugs, like the problem of alcohol during Prohibition, was defined mostly by law enforcement. In both cases, the result was a decline in per capita consumption. However, one result of the definition of alcohol and some drug use as illegal was a significant decline in the interest of the medical profession in a disease-based approach to addictive disorders. Addiction did become a focus of research in the United States in the late 1930s with the establishment of the Addiction Research Center within the federal narcotic treatment complex at Lexington, Kentucky. While the rationale behind the research at the ARC involved a search for non-addicting analgesic drugs, the researchers at the Center identified



important areas of dysfunction resulting from chronic opiate use that could contribute to relapse in abstinent addicts. "Protracted abstinence"[14] and "conditioned abstinence"[15] represented hypothetical models of dysfunction that could be incorporated into a pathophysiological explanation of a "disease."

Protracted abstinence has been loosely described as a persistent residual state of altered physiology following acute drug/alcohol withdrawal. It is characterized by variable somatic symptoms (eg: insomnia) and psychological distress (eg: heightened anxiety and/or depression). The symptoms are temporarily reversed by resumption of drug or alcohol use. Protracted abstinence and residual states have been described in alcoholics[16], heroin addicts[14], and cocaine dependent persons[17]. They have been invoked to explain the high relapse rate in the first 3-6 months after detoxification across all addictive disorders.

"Conditioned abstinence" was the term proposed by the late Abraham Wikler to describe the subjective symptoms of withdrawal experienced by heroin addicts returning to environments in which they had used drugs.[15] More recent research has suggested that these drug or alcohol related stimuli may also elicit drug or alcohol-like responses, as well as responses that may result in "learned" tolerance to the effects of the drug or alcohol.[18] Conditioned responses represent learning which includes a biological dimension. Both protracted abstinence and conditioned responses are theoretically part of modern formulations of the disease construct.

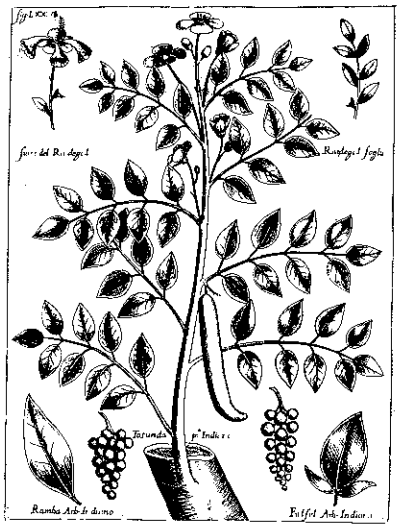
Following the repeal of Prohibition, the most explicit definition of alcoholism as a disease can be found in the writings of E.M. Jellinek (a non-physician)[19], and in the tenets of Alcoholics Anonymous (a non-medical self-help organization).[20] Jellinek believed that the disease concept of alcoholism was essential to increase the availability of services for alcoholics within established medical facilities. He also recognized, however, that efforts to prevent alcoholism would have to address the complex cultural, demographic, political, and economic issues that contribute to the problem. While at various points, Jellinek appears to take a broad view of

the disease concept of alcoholism, in the end he reserved the disease category for those individuals manifesting tolerance, withdrawal symptoms, and either " loss of control " or " inability to abstain " from alcohol (ie: gamma and delta alcoholics). These individuals could not drink in moderation; and, with continued drinking, the disease was progressive. Persons who drank merely in response to psychological stress (" alpha alcoholism "), and those individuals who sustained the toxic consequences from alcohol but were not physically dependent (" beta alcoholism "), did not qualify for the more explicit definition of disease. As Babor and colleagues have pointed out, " those definitions specifying alcohol addiction or dependence as the disease entity... have better grounds to argue that dependence is an organically-based entity which produces a characteristic set of signs and symptoms... and increases the probability of repetitive drinking behavior. "[21]

Since the early 1960s, the disease concept of alcoholism has served as a kind of straw man for some behavioral researchers and social scientists who have raised a number of questions about biologically-based theories of alcoholism. The concept of alcoholism as a progressive disease was challenged by Davies, who reported on seven former alcohol addicts who had apparently returned to normal drinking.[22] The concept of " loss of control " was challenged by the results of a single experiment in which nine alcoholic subjects were given either a vodka-containing drink or placebo on alternate days —but subjects were unaware that they might receive alcohol during the experiment.[23] In this study, Merry reported no difference in desire to drink after subjects consumed the alcohol-containing drink (compared with placebo). The results of this study suggested that if " loss of control " did occur in alcoholics, it was not triggered as an idiosyncratic biological response to alcohol— but rather as a learned response with associated expectancies around drinking behavior. Mello and Mendelson reported, like Merry, that alcoholics did not manifest " loss of control " in their drinking behavior, and that they did not drink to avoid withdrawal symptoms.[24] The work of Mello and Mendelson, Nathan and coworkers[25], and of Cohen et al.[26] led to the conclusion that drinking behavior could be shaped like any other operant in a behavioral paradigm. Based on this perspective, the Sobells reportedly shaped a moderate drinking outcome among a cohort of alcohol dependent patients in a state hospital facility in California.[27] The findings of behavioral researchers in the laboratory had their counterparts in longitudinal surveys of drinking practices.[28] The progression from heavy drinking to severe alcohol dependence did not appear to be inevitable in these community-based surveys. Indeed, in a follow-up to traditional alcoholism treatment, RAND researchers initially reported that some alcoholics appeared to be able to sustain a moderate drinking outcome, rather than relapse to dependent drinking.[29] Summarizing the state of behavioral and epidemiological research related to the disease concept in the late 1970s, Pattison[30] criticized the notion of alcoholism as a distinct entity (with clear distinctions between alcoholics and nonalcoholics), as well as the concept of progression to loss of control and the concept that alcoholism was a permanent and irreversible condition which precludes the possibility of moderate drinking.



To a significant degree, the sharp criticism of the disease concept of alcoholism by some behavioral and social scientists helped to clarify some of the ambiguities of the construct. In the late 1970s and through the 1980s, research findings from other behavioral and social scientists appeared to offer some support for some of Jellinek's ideas. Edwards reported on a long-term follow-up study of the patients that Davies had described in 1962.[31] Edwards' report called Davies' original observations into question. He (Edwards) found that only two of the original seven cases ever actually sustained problem-free moderate drinking, and he wondered whether one of these two individuals had ever been seriously dependent upon alcohol. Pendery and colleagues conducted a ten-year follow-up of 20 patients who had been treated in the controlled drinking therapy of the Sobells, and argued against the feasibility of



long-term moderate drinking in dependent alcoholics.[32] The four-year follow-up by the RAND Corporation modified the conclusions reached at 18 months. These researchers now concluded that more severely dependent alcoholics had to maintain abstinence in order to improve at follow-up.[33] A moderate drinking outcome (defined as six ounces of absolute alcohol per day) could not be sustained in more severely dependent patients. Less dependent alcoholics who were able to maintain a moderate drinking outcome over their first six months in the community did not require abstinence to manifest improved functioning. The conclusions regarding more severely dependent alcoholics in treatment were recently confirmed by Helzer and colleagues[34], and by Babor and colleagues[35]. The latter found that if severely dependent alcoholics resume drinking following inpatient treatment, they revert to a severely dependent pattern. Patients with low levels of dependence who resumed drinking were able to return to more moderate levels of drinking.

Merry's observation (in a small number of alcoholics whose severity of dependence was not specified)[23] was challenged by the studies of Hodgson, Rankin, and Stockwell, who observed that low doses of alcohol had a priming effect, the magnitude of which correlated with severity of alcohol dependence.[36] Finally, Funderburk and Allen[37] criticized the operant methodology which had been used by Mello and Mendelson, by Nathan[25], and by Cohen et al.[26] as not being relevant to an examination of the question of impaired control of drinking behavior. Kaplan et al.[38-40] and Laberg[41] found a positive relationship between the magnitude of alcohol-associated responses by alcoholics in the laboratory and severity of dependence. To some extent, starting in the late 1970s, the "disease" construct was being recast as a symptom complex called dependence.

The impact of research upon definitions of alcohol and drug dependence was reflected in changes in the position of the World Health Organization (WHO) and the International Classification of Diseases. In the 1950s, the definition was focused on physical dependence.[42] In 1964, WHO differentiated between psychic dependence and physical dependence.[43] The concept of psychic dependence was, at one level, compatible with the then psychodynamic view of these disorders as a response to underlying psychic distress (eg: negative mood states). According to the psychodynamic model, excessive alcohol or drug consumption was merely a response to underlying psychopathology. The model was also consistent with Jellinek's view of one of the "species" of alcoholism (alpha alcoholics) in which individuals drank to relieve emotional pain. Parenthetically, Jellinek was a WHO consultant on alcoholism in the early 1960s. The emergence of the concept of an alcohol dependence syndrome occurred with ICD-9.[44] This followed the proposal of Edwards and Gross, who defined seven characteristics of the alcohol dependence syndrome.[45] Edwards has argued that there are certain implicit assumptions to the syndrome: 1) It is a symptom complex which involves both biological processes and learning; 2) It should be defined along a continuum of severity, rather than as a discrete category; and 3) Dependence should be differentiated from alcohol-related disabilities. Both dependence and disabilities exist in degrees, rather than on an all-or-none basis. A number of studies have suggested that severity of alcohol dependence has prognostic significance in clinical populations.[33 34 35 46 47 48] In at least one study, severity of dependence was not a significant predictor of outcome.[49] In 1987, the American Psychiatric Association adopted the dependence syndrome and applied it to all drugs of abuse.[50]

Jaffe has framed the definition of the term addiction within the WHO context of dependence.[51] He has defined it as "a behavioral pattern of drug use, characterized by overwhelming involvement with the use of a drug (compulsive use), the securing of its supply, and a high tendency to relapse after withdrawal." For Jaffe, addiction stands at one end of a continuum of involvement in drug use. "In most instances, it will not be possible to state with precision at what point compulsive use should be considered

addiction... but the term addiction cannot be used interchangeably with physical dependence. It is possible to be physically dependent on drugs without being addicted and ... to be addicted without being physically dependent." *The behavioral disorder, and not physical dependence, is the syndrome.* As in DSM-III-R, it can be applied to stimulants and hallucinogens (where physical dependence is not a significant factor), as well as to alcohol, opiates, and hypnotic sedative drugs (where physical dependence is a factor). At least six different questionnaires have been developed to measure the severity of alcohol dependence.[52 53 54 55 56 57,33] At least one questionnaire has been developed to measure severity of opiate dependence using the DSM-III-R criteria.[58] As with questionnaires in other clinical and clinical research settings in psychiatry, these measures of dependence severity provide a quantitative assessment in the absence of clear biological variables associated with causation or a high degree of correlation. In searching for potential biological variables that could underlie impaired control of drug or alcohol use, it will be important to differentiate between those biological variables that are merely altered by the consumption of the substance vs. those that appear to underlie the dependence syndrome and the associated risk of relapse following withdrawal. Since everyone who is exposed to alcohol or addicting drugs does not become dependent, it will also be important to identify those pre-morbid characteristics associated with risk of dependence. Can we define the specific biological correlates of increased risk of alcohol dependence associated with family history and/or personal history of conduct disorder and anti-

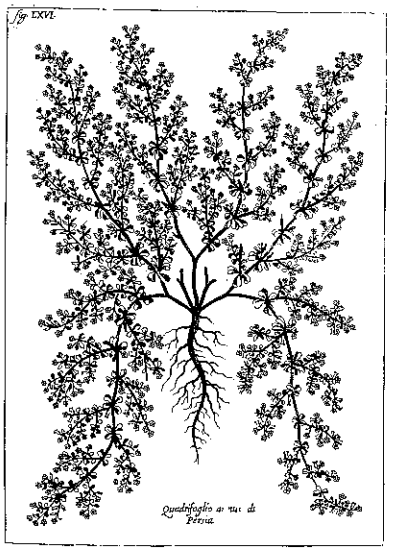
Table 1. Characteristics of Alcohol Dependence Syndrome

Symptom	Description
Narrowing of the drinking repertoire	Increasing severity of dependence is marked by increasingly stereotyped drinking with little day-to-day variability of beverage choice; and a high blood alcohol level
Salience of drink-seeking behavior	Increasing severity of dependence is marked by the individual granting highest priority to maintaining alcohol intake, with a failure of negative social consequences to deter drinking behavior
Increased tolerance	Where increasing severity of dependence is marked by the individual able to function at blood alcohol levels that would incapacitate the nontolerant drinker. In later states of the illness, the individual begins to lose his previously acquired tolerance because of liver damage, aging, and/or brain damage
Repeated withdrawal symptoms	With increasing severity of dependence, the individual manifests more frequent and severe withdrawal symptoms. Four key symptoms include tremor, nausea, sweating, and mood disturbance
Relief avoidance of withdrawal symptoms	With increasing severity of dependence, the individual will take to drinking earlier in the day, and may even awaken to drink in the middle of the night
Subjective awareness of a compulsion to drink	With increasing severity of dependence, the individual will experience a sense of " loss of control " or impaired control over alcohol intake, and a subjective sense of " craving " or desire to drink. Cues for craving may include the feeling of intoxication, withdrawal affective discomfort, or situational stimuli
Reinstatement after abstinence	With increasing severity of dependence, the individual will feel " hooked " within a few days of starting to drink; and drinking will revert to the old stereotyped pattern. The six elements of the syndrome will rapidly reappear

Cited first in: MEYER, R.E. *Overview of the concept of alcoholism, Alcoholism. Origins and Outcome,* edited by R.M. Rose and J. Barrett. Raven Press, Ltd., New York, 1988

social personality disorder? Is there an inherited neurobiological dimension to the selection of peer groups that are associated with differential risk of drug abuse in the context of drug epidemics?

Mendelson and Mello believed that a major function of the disease construct concerns its usefulness in organizing biochemical research.[59] They conceptualized alcoholism as a disease in the context of the agent (alcohol) affecting a susceptible individual within a given environment. As in the rest of medicine[60], the causal agent (in this case, alcohol) is necessary —but not sufficient— to result in the disease. For alcohol, a relatively prolonged period of exposure is necessary for the development of alcohol dependence in humans. For males with a childhood history of conduct disorder and an adult diagnosis of antisocial personality disorder, the progression from the onset of heavy drinking to the development of the symptoms and signs of alcohol dependence (approximately five years) tends to be more rapid than in males without this constellation of personality traits.[61] In contrast, in vulnerable individuals, intravenous opiate self-administration and intravenously self-administered or smoked cocaine are associated with the rapid development of dependence.[62] These drugs are also more potent reinforcers in animal models of intravenous drug self-administration.[62] As neurobiology advances our understanding of brain function, and the relationship between brain and behavior, pathophysiological mechanisms associated with the symptom complex of dependence should be identified. Within medicine, this stage of understanding a symptom complex assures the validity of the disease concept. Over the past decade, a number of researchers have identified the reinforcing event in the brain, associated with opiate and stimulant administration, as dopamine release in the nucleus accumbens.[63,64] It is possible that ethanol may also cause dopamine release from this region, but, as Bloom has noted, "no consistent relationship has been established between the content, synthesis, or catabolism of any neurotransmitter and the doses of alcohol required to produce intoxication."[65] (Dr. Bloom may comment about this later in his presentation at this meeting.) It is likely that the effects of ethanol are mediated through several neural substrates that involve its euphoric, anxiolytic, cognitive, and aversive properties.[62] The development of alcohol dependence probably results in an increase in the reinforcing potency of ethanol (increased dopamine release from the nucleus accumbens with drinking experience?), as well as possible alterations in mechanisms of appetite and/or satiation.



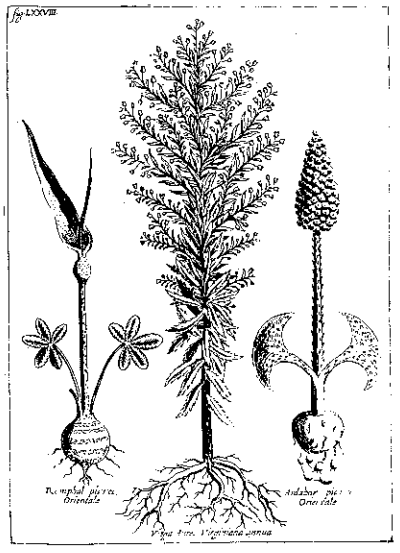
One direction of clinical research on addictive disorders has focused on the subjective state ("craving," "increased desire") associated with the anticipation of drug or alcohol consumption in addicted individuals. Recent research suggests that the *anticipation* of a reinforcing event, like the reinforcement event itself, is associated with dopamine release in the nucleus accumbens.[66] As a virus is capable of taking over and directing the synthesis of proteins within a cell, it appears that these extrinsic reinforcers (addictive drugs) appear to dominate brain mechanisms related to anticipation and purposeful, motivated behavior.

The development of animal models of human diseases has always represented an important step in defining the human disease, and in crafting pharmacological and other therapies for that disease. Animal models of drug self-administration have been available for nearly three decades.[67] While no animal model fully satisfies all dimensions of human *alcoholism*, it is clear that alcohol consumption can be affected by schedules of reinforcement[62], and will be substantially affected by pharmacogenetic factors[68]. At this juncture, alcohol consumption by alcohol preferring strains of rats is the model which comes closest to modeling the alcohol dependence syndrome. It would be a good model to use in testing new pharmacotherapies for human alcoholism. Three other areas would be well served by the development of animal models of a variety of addictive disorders: 1) protracted abstinence; 2) cognitive impairment; and 3) comorbid psychopathology. One caveat: the development of drugs which block self-administration of addictive drugs in animal models

does not assure clinical efficacy in human populations. Narcotic antagonists will block opiate self-administration in animal models, but most addicts will not voluntarily take a narcotic blocking drug.[69] As in the treatment of hypertension, clinicians need to develop ways to encourage patient compliance with prescribed treatment. It is likely that effective pharmacotherapy will require the use of different medications to treat different phases or aspects of the disorder (eg: protracted abstinence, co-morbid psychopathology, cognitive impairment), as well as psychosocial interventions to deal with the psychosocial disabilities associated with the various dependence syndromes.

Since there is a relatively prolonged incubation period of heavy drinking prior to the development of alcohol dependence, nondependent heavy drinkers have become a focus for early identification and intervention.[70] Because there is as yet no single accurate biological marker of recent alcohol use, clinicians and researchers have utilized biological, clinical, and verbal report methods in combination to identify problem drinkers who are not yet significantly alcohol dependent.[71] The literature suggests that many problem drinkers mature out of their harmful drinking practices.[28] Brief intervention strategies, based upon cognitive behavioral principles, have also been effective in controlled clinical trials designed to teach moderate and less harmful drinking practices.[70] These behavioral approaches may be most effective when tied to strategies of early identification and intervention in primary care settings.[72] The model is not unlike other types of health screening, especially for risk factors associated with cardiovascular disease. It is unclear whether these behavioral interventions would be effective with heavy drinkers who also carried other risk factors, such as family history of alcoholism, childhood conduct disorder, antisocial personality disorder, etc; or whether they would be useful in preventing progression to dependence with opiates, stimulants, or other classes of abused drugs.

At this writing, the debate over the disease concept has been joined largely by physician clinicians[73 74 75] on the one hand, and behavioral clinicians[76] and social scientists[77], on the other, arguing over 19th century definitions of disease. The debate over the disease concept has always been more intense in the alcohol field than in relationship to other addictive disorders. For the most part, the behavioral clinicians work with less seriously impaired individuals, while the physicians deal with more seriously dependent alcoholics. At one level, the arguments concern ownership and primacy. They concern the perceived value and validity of different areas of investigation from molecular biology to anthropology. Certainly, the treatment of addictive disorders is a part of the purview of medicine, but organized programs of self-help, and interventions by non-physicians, carry their own legitimacy. The issue of whether or not addictive disorders constitute " diseases " needs to move beyond sterile scholasticism into informed multi-disciplinary inquires. This is consistent with more recent perspectives on disease in medicine, which have been informed by new knowledge coming from many disciplines. Indeed, in the past 30 years, the most compelling arguments both for and against the disease concept have come from social and behavioral scientists; and, the primary care physician's office may be the most effective venue for the early identification of substance abuse problems and effective *behavioral* interventions (ie: secondary prevention). Indeed, substance use disorders constitute a natural paradigm for bridging public health and individual disease-based approaches. Unfortunately, as the distinguished psychopharmacologist Daniel X. Freedman has noted, " The use of drugs... provides striking metaphors of man and his purposes. This no doubt accounts for the often morbid fascination and irrationality with which society approaches these topics. " He goes on to note that while a scientific approach to substance dependence disorders involves a broad range of disciplines, the study of addictive disorders ultimately also involves the study of " the regulation of the self " Thus, even as the " disease " of addictive behavior is increasingly revealed through scientific research, it is



clear that many disciplines (including religion) will continue to contribute to an understanding of its nature within the human experience.

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References

[1] *Dorlan's Illustrated Medical Dictionary,* 23rd edition, 1957.

[2] GORDON, R.S. (1983) An operational classification of disease prevention. In: *Public Health Reports,* Volume 98, pp 107-109.

[3] LEVINE, H.G (1978) The discovery of addiction: Changing conceptions of habitual drunkenness in America. J *Stud Alcohol,* 39: 143- 174.

[4] RUSH, B. (1791). *An Enquiry into the Effects of Spirituous Liquors upon the Human Body and Their Influences upon the Happiness of Society.* Thomas and Andrews: Boston.

[5] TROTTER, T (1804). *An Essay, Medical, Philosophical and Chemical on Drunkenness* Longman: London

[6] HUSS, M. (1849) (English translation from German) edited by E.M Jellinek: Magnus Huss'Alcoholismus Chronicus (1943). *Quarterly* J. *Stud Alcohol,* 4:85-92

[7] WOODWARD, S B. (1838). Essays on asylums for inebriates. Worcester, MA

[8] TYRRELL, I.R. (1979) *Sobering Up from Temperance to Prohibition in Antebellum America 1800-1860* Greenwood Press: London

[9] BERRIDGE, V (1989). Alcohol: History and policy. In: *Controlling Legal Addictions,* edited by D. Robinson, A. Maynard, and R. Chester MacMillan Co : London.

[10] DUBLIN, L.I. (1932). General mortality rates 1900 to 1930, and death rates from alcoholism and cirrhosis of the liver. In: *Alcohol and Man: The Effects of Alcohol on Man In Health and Disease,* edited by H Emerson, The MacMillan Company: New York.

[11] GALDSTON, I (1981). *Social and Historical Foundations of Modern Medicine* Brunner/ Mazel: New York

[12] LEVINSTEIN, E. (1878) *Morbid Craving for Morphia* Smith, Elder, London.

[13] MUSTO, D.F (1973). *The American Disease.* Yale University Press: New Haven

[14] MARTIN, J R and JASINSKI, D.R (1969). Physiological parameters of morphine dependence in man—Tolerance, early abstinence, protracted abstinence J *Psychiat. Res.* 7:9-17

[15] WIKLER, A. (1965). Conditioning factors in opiate addiction and relapse. In: *Narcotics,* edited by D.M. Wilmer and G.G Kassebaum, pp 85-100, McGraw-Hill: NY.

[16] MEYER, R.E. (1989). Prospects for a rational pharmacotherapy of alcoholism J *Clin Psychiatry,* 50 (11): 403-412.

[17] GAWIN, F.H and KLEBER H.D., (1986) Abstinence symptomatology and psychiatric diagnosis in cocaine abusers. *Arch Gen. Psychiatry,* 43:107-113

[18] STEWART, J., deWIT H., & EIKELBOOM R (1984). Role of unconditioned and conditioned drug effects in the self-administration of opiates and stimulants *Psychol Rev.,* 91:251- 268

[19] JELLINEK E.M. (1960). *The Disease Concept of Alcoholism* Hillhouse Press: New Brunswick, NJ.

[20] Anonymous. (1957). *Alcoholics Anonymous Comes of Age.* New York Alcoholics Anonymous Publishing.

[21] BABOR, T F., KRANZLER, H.R , and KADDEN, R.M. (1986) Issues in the definition of diagnosis of alcoholism: Implications for a reformulation. *Prog. Neuropychopharmacol. Biol. Psychiatry,* 10: 113- 128.

[22] DAVIES, D L. (1962). Normal drinking in recovered alcohol addicts *Quarterly* J. *Stud Alcohol,* 23:94-104.

[23] MERRY, J. (1966). The loss of control myth. *Lancet,* 1: 1257-1258.

[24] MELLO, N K and MENDELSON, J.H (1971). Drinking patterns during work: Contingent and noncontingent alcohol acquisition In: *Recent Advances in Alcoholism,* U.S Public Health Service HSM 719045, Washington, DC, pp 647-686.

[25] NATHAN, P.E. and O'BRIEN, J.S. (1971) An experimental analysis of the behavior of alcoholics and nonalcoholics during prolonged experimental drinking *Behav Res. Ther ,* 2:455-476

[26] COHEN, M. LIEBSON I A., and FAILLACE, L A. (1971) The modification of drinking in chronic alcoholics In: *Recent Advances in Studies of Alcoholism,* edited by N K Mello and J H. Mendelson, U S. Government Printing Office, Washington, DC, pp 745-766.

[27] SOBELL, M B. and SOBELL, L C (1976) Second-year treatment outcome of alcoholics treated by individualized behavior therapy: Results. *Behav. Res. Ther ,* 14: 195-215.

[28] CAHALAN, D and CISIN, I (1977) Drinking behavior and drinking problems in the United States. In: *The Biology of Alcoholism Volume 5, Treatment and Rehabilitation of the Chronic Alcoholic,* edited by B. Kissin and H Begleiter. Plenum Press: NY.

[29] ARMOR, D J. POLICH, J M., and STAMBULH, B. (1976). Alcoholism and treatment *RAND Corporation* R- 1739-NIAAA

[30] PATTISON, E M , SOBELL, M B , and SOBELL, L.C (1977). *Emerging Concepts of Alcohol Dependence,* pp 9-39, Springer Publishing Co.: NY.

[31] EDWARDS, G (1985). A later follow-up of a classic case series: D L. Davies' 1962 Report and its significance J. *Stud Alcohol,* 46: 181-190.

[32] PENDERY, M.L., MALTZMAN I M., and WEST, L.J. (1982). Controlled drinking by alcoholics? New findings and a re-evaluation of a major affirmative study. *Science,* 217: 169-175.

[33] POLICH, A.M , ARMOR, D.J , and BRAIKER H.B. (1980) The course of alcoholism four years after treatment. *RAND Corporation,* R-2433-NIAAA.

[34] HELZER J.E , ROBINS, L N , TAYLOR, J.R., CAREY, K , MILLER, R.H., COMBS-ORME, T., and FARMER, A (1985). The extent of long-term moderate drinking among alcoholics discharged from medical and psychiatric treatment facilities N *Engl J. Med ,* 312: 1678-1682.

[35] BABOR, T F., COONEY, N.L., and LAUERMAN, R.J (1987). The drug dependence syndrome concept as a psychological theory of relapse behaviour: An empirical evaluation. *Br. J Addict ,* 82:393-405

[36] HODGSON, R , RANKIN, H , and STOCKWELL, T. (1979). Alcohol dependence and the priming effect. *Behav Res. Ther ,* 17:379-387.

[37] FUNDERBURK, F.R. and ALLEN, R.P (1977) Alcoholic's disposition to drink: Effects of abstinence and heavy drinking. J. *Stud. Alcohol,* 38:410-425.

[38] KAPLAN, R F., MEYER, R E., and STROEBEL, C.F. (1983). Alcohol dependence and responsivity to an ethanol stimulus as predictors of alcohol consumption. *Br J Addict .* 78:259-267.

[39] KAPLAN, R.F., MEYER, R.E , and VIRGILIO, L.M. (1984). Physiological reactivity to alcohol cues and the awareness of an alcohol effect in a double-blind placebo design *Br J Addict ,* 79:439-442.

[40] KAPLAN, R F., COONEY, N L., BAKER, L.H., GILLESPIE, R.A., MEYER, R E., and POMERLEAU, O.F (1985) Reactivity to alcohol-related cues: Physiological and subjective responses in alcoholics and nonproblem drinkers. J *Stud. Alcohol,* 46 (4): 267-272.

[41] LABERG, J C. (1986). Alcohol and expectancies: Somatic and subjective responses to expectancies and intake of alcohol in severely, moderately, and nondependent drinkers *Br J. Addict ,* 81:797-808.

[42] *World Health Organization* (1955). Alcohol and alcoholism: Report of an expert committee. WHO Technical Report Series 94, Geneva

[43] BERRIDGE, V (1990). Dependence: Historical concepts and constructs. In: *The Nature of Drug Dependence.* edited by G. Edwards and M Lader, pp 1-18, Oxford University Press: Oxford, NY.

[44] *World Health Organization* (1978) Mental disorders: Glossary and guide to their classification (in accordance with 9th revision of the International Classification of Diseases) WHO, Geneva.

[45] EDWARDS, G. and GROSS, M M. (1976). Alcohol dependence: Provisional description of a clinical syndrome *Br Med J.,* 1: 1058-1061

[46] ORFORD, J. OPPENHEIMER, E , and EDWARDS, G. (1976). Abstinence or control: The outcome for excessive drinkers two years after consultation. *Behav. Res Ther .* 14:409-418.

[47] SKINNER, A J. and ALLEN, B A (1982) Alcohol dependence syndrome: Measurement and validation. J. *Abnorm Psychol.,* 91 (3): 199-209.

[48] VAILLANT, G.E. (1983). *The Natural History of Alcoholism: Causes, Patterns and Paths of Recovery.* Harvard University Press: Cambridge.

[49] HEATHER, N. ROLLNICK, S , and WINTON, M (1983). A comparison of objective and subjective measures of alcohol dependence as predictors of relapse following treatment. *Br. J. Clin. Psychol.,* 22: 11-17.

[50] American Psychiatric Association (1987) *Diagnostic and Statistical Manual of Mental Disorders,* 3rd edition-revised (DSM-III-R).

[51] JAFFE, J.H (1985). Drug addiction and drug abuse. In: *The Pharmacological Basis of Therapeutics* (7th edition), edited by A G Gilman, L S. Goodman, T.W. Rawl, and F Murad, pp 532-581, MacMillan: NY.

[52] CHICK, J. (1980) Alcohol dependence, methodological issues, and its measurement: Reliability of the criteria. *Br. J. Addict.,* 75: 175- 186.

[53] HERSHON, H. (1977). Alcohol withdrawal symptoms and drinking behavior. J *Stud Alcohol.* 38:953-971.

[54] HESSELBROCK, M., BABOR, T., HESSELBROCK, V., MEYER, R., and WORKMAN, K. (1983). "Never believe an alcoholic?" On the validity of self-report measures of alcohol dependence and related constructs. *Int. J. Addict.*, 18 (5): 593-609.

[55] SKINNER, A.J. and ALLEN, B.A. (1982). Alcohol dependence syndrome: Measurement and validation. *J. Abnorm. Psychol.* 91 (3): 199-209.

[56] STOCKWELL, T., HODGSON, R., EDWARDS, G., TAYLOR, C., and RANKIN, H. (1979). The development of a questionnaire to measure severity of alcohol dependence. *Br. J. Addict.*, 74:79-86.

[57] STOCKWELL, T., MURPHY, D. and HODGSON, R. (1983). The severity of alcohol dependence questionnaire: Its use, reliability and validity. *Br. J. Addict.*, 78: 145-155.

[58] SUTHERLAND, G., EDWARDS, G., TAYLOR, C., PHILLIPS, G., GOSSOP, M., and BRADY, R. (1986). The measurement of opiate dependence. *Br. J. Addict.*, 81:485-494.

[59] MENDELSON, J.H. and MELLO, N.K. (1969). A disease as an organizer for biochemical research: Alcoholism. In: *Psychochemical Research in Man*, edited by A.J. Mandell and M.P. Mandell, pp. 379-403. Academic Press: NY and London.

[60] ELWOOD, J.M. (1988). *Causal Relationships in Medicine: A Practical System for Critical Appraisal*. Oxford University Press: Oxford, NY.

[61] HESSELBROCK, M.N., MEYER, R.E., and KEENER, J.J. (1985). Psychopathology in hospitalized alcoholics. *Arch. Gen. Psychiatry*, 42: 1050-1055.

[62] MEYER, R.E. and DOLINSKY, Z.S. (1991). Alcohol reinforcement: Biobehavioral and clinical considerations. In: *Neuropharmacology of Ethanol: New Approaches*, edited by R.E. Meyer, G.F. Koob, M.J. Lewis, and S.M. Paul, Birkhauser: Boston.

[63] DI CHIARA, G. and IMPERATO, A., (1988). Drugs abused by humans preferentially increase synaptic dopamine concentrations in the mesolimbic system of freely moving rats. *Proc. Natl. Acad. Sci.* 85:5274-5278.

[64] WISE, R. (1980). Actions of drugs of abuse on brain reward systems. *Phamacol. Biochem. Behav.*, 13 (1): 213-220.

[65] BLOOM, F.E. (1989). Neurobiology of alcohol action and alcoholism. In: *Annual Review of Psychiatry*, Volume 8, edited by A. Tasman, R.E. Hales and A.J. Francis, pp. 309-322, American Psychiatric Association Press: Washington, DC.

[66] PFAUS, J.G., DAMSMA, G., NOMIKOS, G.G., WENKSTERN, D.G., BLAHA, C.D., PHILLIPS, A.G., and FIBIGER, H.C. (1990). Sexual behavior enhances central dopamine transmission in the male rat. *Brain Res.*, 530 (2): 345-348.

[67] WEEKS, J.R. (1963). Experimental morphine addiction: Methods for automatic intravenous injections in unrestrained rats. *Science*, 138: 143-144.

[68] LI, T-K, LUMENG, G.L., and MCBRIDE, W.J. (1988). Pharmacology of alcohol preference in rodents. *Adv. Alcohol Subst. Abuse*, 7:73-86.

[69] MEYER, R.E. and MIRIN, S.M. (1979). *The Heroin Stimulus: Implications for a Theory of Addiction*. Plenum Press: NY.

[70] Institute of Medicine (1989). *Prevention and Treatment of Alcohol Problems: Research Opportunities*, Chapter 10: Early identification and treatment, pp. 215-229.

[71] BABOR, T.F., KRANZLER, H.R., and LAUERMAN, R.J. (1989). Early detection of harmful alcohol consumption: A comparison of clinical, laboratory, and self-report screening procedures. *Addict. Behav.*, 14: 139-157.

[72] BABOR, T.F., RITSON, E.B., and HODGSON, R.J. (1986). Alcohol-related problems in the primary health care setting: A review of early intervention strategies. *Br. J. Addict.*, 81:23-46.

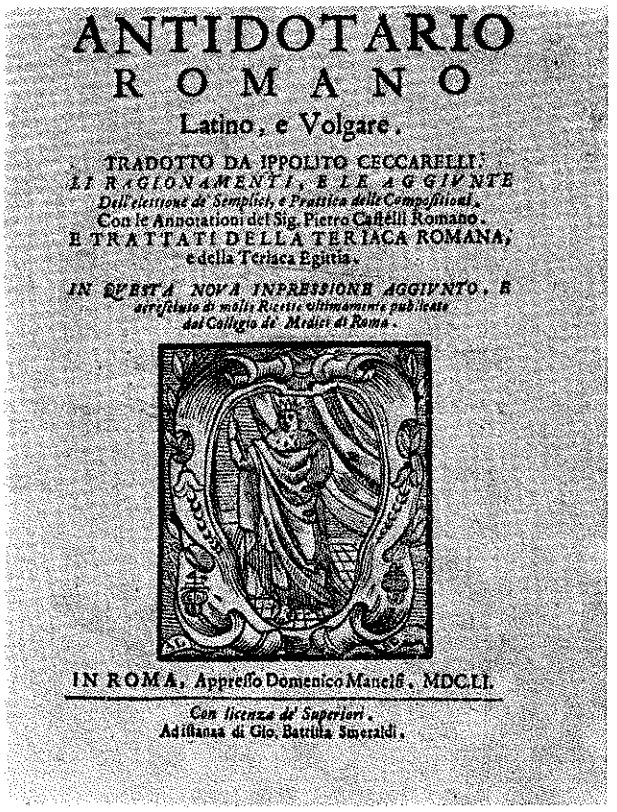
[73] GITLOW, S.E. (1973). Alcoholism: The disease in alcoholism. In: *Progress in Research and Treatment*, edited by P.G. Bourne and R. Fox, pp. 1-9. Academic Press: NY.

[74] BLUME, S. (1983). The disease concept of alcoholism. *Journal of Psychiatric Treatment and Evaluation*, 5:471-478.

[75] KISSIN, B. (1983). *The Disease Concept of Alcoholism in Research Advances in Alcohol and Drug Problems*, edited by R.G. Smart, F.B. Glaser, and Y. Israel, Plenum Press: NY.

[76] MILLER, W.R. and HESTER, R.K., (1980). Treating the problem drinker: Modern approaches. In: *The Addictive Behaviors: Treatment of Alcoholism, Drug Abuse, Smoking, and Obesity*, edited by W.R. Miller, pp. 11-141, Oxford Pergamon Press: NY.

[77] ROOM, R. (1985). Dependence and society. *Br. J. Addict.*, 80: 133-139.



FRANCESCO ANTONIO MANZOLI

Individual Genetic Characteristics and Behavior

In his natural history, man has always suffered not only the major scourges of weather, the seasons, and pestilences, but also the damages, sometimes even more serious, produced in the most disparate ways by his own nature, through both the spread of hate-filled ideas and cultures and the production and use of narcotic, exhilarating, or other substances capable, in any event, of offering illusion and temporary sensations of pleasure.

Human reason has always sought a demonstration, a scientific correlation between individual genetic characteristics and behavior.

In the modern era first Galt and then Lombroso in criminology tried to demonstrate it. Twenty years ago there was an attempt with the famous "crime chromosome." In June of this year an article appeared in the celebrated journal Science, and the same question has been proposed again, pointing out differences in structure and hypothalamic nuclei, as seen in autopsies on a group of addicts.

Different genetic responses certainly exist as well in individuals and populations as regards alcohol. There is now substantial evidence, to the point that Lejeune, Hillemand, and others speak of biological or genetic markers of alcoholism, such as

— significant differences in the potentials of the central nervous system;

— slight activity of the isoenzymes responsible for metabolism of ethanol and particularly involved in modifying acetaldehyde levels;

— low levels of monoaminooxydase (MOA);

— correlation with the HLA system of tissue histocompatibility (particularly for HLA-B-27);

— up to a 75% reduction in the lymphocyte of membrane receptors for adenosine responsible for activating secondary intracellular messengers (cyclic AMP).

Differing response according to individual constitution has also been demonstrated now in numerous situations: for pharmaceuticals, for pathologies linked to exposure to substances at work, for infectious diseases, and even for predisposition to some neoplastic pathologies.

It is, however, important to distinguish between

Genetic constitution and the organism's capacity to respond to or sustain high doses of alcohol;

Predisposition to alcoholism on a genetic basis.

In extremely short periods in an individual's lifetime the difference is probably insignificant.

From a biological, cultural, and social standpoint, on the other hand, this question, still open, poses important responsibilities in offering (or not) alibis or attenuating circumstances and services and social assistance and identifying groups at risk, or, on the contrary, to establish markers for danger or classification criteria among different individuals, going so far as to instrumentalize politically and socially concepts which, at least to the mind of Darwin and his followers, were purely biological.

A great many of these studies, however, need deeper verification on the basis of large numbers and a very long-term follow-up.

We must also discern carefully the extent to which the observed elements described are linked to strictly genetic mechanisms or are influenced by environmental phenomena or factors.

The importance of microenvironmental interaction in cells or molecules is indeed playing an increasingly significant role in the study of factors and mechanisms regulating the activity of gene expression, in both temporal and qualitative/quantitative terms.

Precisely in May of this year, at an international meeting on "Environment and Human Reproduction," opened by Professor Dulbecco, with the support and participation of different researchers at the Institute for Advanced Studies in Health, these subjects were dealt with as regards both stimuli deriving from environmental pollution and aspects of the effects on the early stages of the development of medicines, drugs, or alcoholic substances.

Finally, more complex, but certainly no less fascinating in strictly scientific terms is the possibility (in addition, harder to evaluate) that modifications of behavior, development, or psychophysical stress conditions may involve measurable differences in strictly biological parameters, from variations in hormone levels to statistically demonstrable probabilities of greater predisposition to neoplastic diseases themselves.

In the new philosophy of science in recent years there emerge and oppose one another, then, new and old tendencies taking up again the most ancient Greek concepts, remaining within strictly mechanistic frameworks, or proposing once again neo-Lamarckian models under a more consistent aspect.

The definitive answers to these

questions will perhaps not be ours, but probably future generations'; our mission will be to formulate, follow, or maintain one hypothesis or another; above all, it will be our responsibility to provide answers, even on a cultural and scientific basis, to the major health and social problems presenting themselves to our conscience each day.

Science must therefore continue to play its role tenaciously, for many answers to these leading subjects are precisely and especially cultural, in terms of knowledge of both mechanisms and effects, to direct prevention campaigns oriented scientifically and provide strength, substance, and conviction to those who must receive the message and those who must convey and disseminate it.

The Institute for Advanced Health Studies, which I am privileged to head, acts on this basis.

In addition to its founding purposes of research, vigilance, and control in sectors extending from medicinal products to the environment and food, the Institute is the depository of one of the most highly qualified traditions in the country regarding narcotic substances and the abuse of alcohol.

Precisely these experiences, among other things, have enabled the Institute to furnish clinical and experimental parameters at the root of the current national norms on drugs and the control of drunken driving.

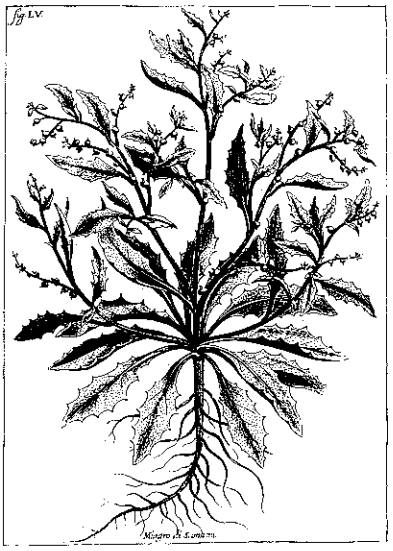
These are important and necessary initiatives which have globally brought society significant gains even in terms of human lives, gains which, seen in the perspective of the vast problem of alcohol or drugs, become extremely limited moments, restricted to specific, definite spheres.

The principle thus reappears that morality or conscience cannot be imposed by law when the rules of human behavior instead require first of all examples and motivations.

All mankind in these years is going through a period characterized by profound ideological and economic crises wherein serious human tragedies are consummated.

These crises involve and occupy at once the conscience and the function of people.

Conscience, inasmuch as we are necessarily forced, as a result of the precipitation of varied events, to judge or, in any case, decide about situations involving certain forms of behavior and thus implying an individual's life options and future.



Function, inasmuch as each one of us is within society and marked by a personal characteristic, the consequent responsibilities frequently bring with them the obligation to act or apply disciplinary measures which are more or less relevant or justified according to laws regulating equilibria in human societies.

The problems of alcohol and drugs are those which situate societies before major reflections: when a human being takes refuge in alcohol or drugs, he certainly needs moral help, vast understanding, and love, but, alongside all of this, he also needs concrete aid.

There are material needs, but also the need for help to analyze carefully the deep motives which have dug in the individual that dark tunnel through which he has reached abandonment or the idea of finding a solution in alcohol or drugs.

Man contains two elements in his nature in eternal conflict: strength and weakness; and when any reason determines the predominance of the latter, it is the mission of his fellows, of all of us, by actions deriving from the predominance of the strength of reason and love, to bring, not help, but dignity to the one needing support at that moment.

If we do not solve these problems, we may perhaps be able to eliminate temporarily currently existing alcohol and drugs, but new compounds or new molecules will just as rapidly appear offering illusion, refuge, or negation in the face of life's difficulties and hardships.

We will then promote again studies and research on the effect of those substances on the digestive, respiratory, or cardiocirculatory apparatus, or concerning the effects induced in the limbus system or the dopaminergic or peptidergic systems and the role played by these systems in the genesis of pleasurable, euphoric, or gratifying effects obtained, though for short periods, after consuming such substances.

These are most noble subjects for the progress of man's knowledge and also for the demonstration of

effects of abused substances, but, from another standpoint, they become methods to calculate the degradation of the human personality quantitatively.

The escalation of scientific knowledge, tests, and demonstrations does not suffice alone to eliminate those serious problems which are certainly the cause of very grave individual or collective situations, but, first of all, they are also a symptom of the realities and difficulties of our society.

The WHO program on "Health for All by the Year 2000," on the other hand, unfortunately presents serious delays today in regard to the intermediate goals previously established, inasmuch as human behavior, for reasons which may be organizational, economic, or even genetic, does not always follow the laws and rules of rationality, objectivity, and social and spiritual serenity.

Programs and cultures then become priorities which, together with scientific effort, can serve to recover the motivations of each individual to remove the social causes at the root of much deviant behavior, as an impulse towards a political credibility able to sensitize both individuals and the community correctly to these major problem areas.

The phenomenon of substance abuse in its varied forms is worldwide; and the problems transcend the confines of the laws and instruments of each government; therefore, only with the support of a universal message of faith and superior moral content can we hope in this life of shared responsibilities to deal with such a big challenge today.

The more this spreads and there is participation in man's being and becoming, above and beyond all personal selfishness, the more incisive social involvement and its results will be, even in the limited area of prevention.

Prof. FRANCESCO ANTONIO MANZOLI
Director General of the Italian Institute for Advanced Health Studies

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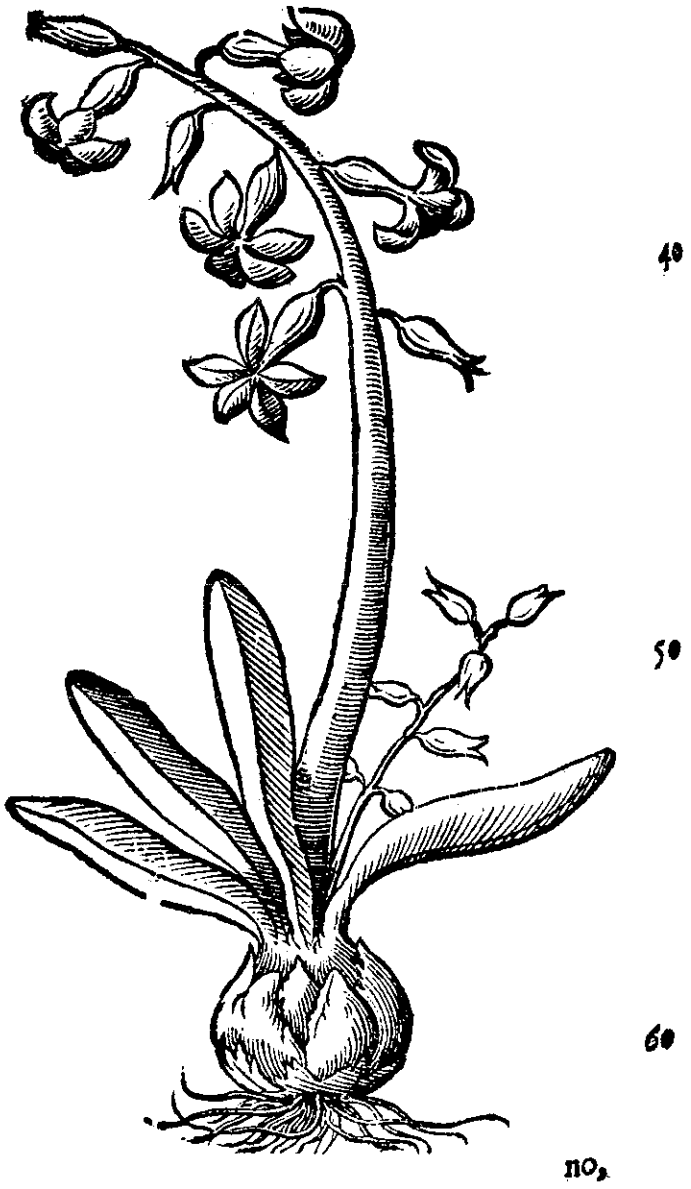


BERNARD HILLEMAND

The Genetic Basis for Alcoholism

Even in ancient times a hereditary factor was mentioned for alcoholic problems (49). In the nineteenth century, in a Lamarckian view of transmission of acquired characteristics, the theory spread that alcoholism was one of the main causes of " physical and moral debilitation " (126).

About fifty years ago, under the influence, among other things, of the renaissance of the social sciences, the role of genetic factors in the genesis of alcoholism was questioned.

But a whole series of epidemiological arguments lends weight to the genetic basis for alcoholism.

Family studies are very suggestive. In a review bringing together 39 surveys, Cotton (26) observes that the frequency of alcoholism is substantially more elevated in the families of alcoholics than in those of control subjects, even when the latter, nonalcoholics, are psychiatric patients.

More recently, Goodwin (51) has estimated that close to 20-25% of the sons and 5% of the daughters of alcoholics become alcoholics, whereas 20-25% of the brothers or stepbrothers of alcoholics are, in turn, affected by alcoholism. There is even mention of higher figures (141).

It thus appears that family precedents for alcoholism represent the highest known risk (51).

" Family-based, " however, does not mean hereditary, because educational, cultural, or social co-factors constitute the acquired versus the innate and may intervene in the figures. Studies on twin brothers and sisters, half siblings, and adopted children are therefore of great interest.

Studies on twins rest on the principle that the frequency of alcoholism in the two members of a pair of twins ought to be significantly higher in monozygotic, as opposed to heterozygotic, twins, for the genes of the latter are only 50% identical.

Two studies favor the genetic factor, showing a higher level of agreement in monozygotic pairs (62, 68), with figures at 53.5%, for instance, among the homozygotic in the second one, over against 28.3% in the dizygotic, statistically significant difference.

An important series (95), cited by Goodwin (51), offered equivocal results by causing a rise to appear in agreement among the homozygotic, not in the sample as a whole, but only in young individuals.

Another study (54) remained negative and could not objectify a difference in degrees of concordance among homozygotic and heterozygotic pairs.

It is clear that methodological problems are posed. Among other things, the possibility has been shown in such studies of deviation caused by environment (20).

Studies on half siblings have shown (110):

that among those whose natural father is not an alcoholic, 14% of the ones raised with an alcoholic relative become alcoholic as well, as opposed to 8% of those raised without an alcoholic relative;

that among those born of an alcoholic natural father and raised with him, 46% were alcoholic, whereas the number increased, paradoxically, to 50% of those raised in separation from the alcoholic father.

It thus seems that among these subjects the simple fact of living with an alcoholic relative did not influence the development of alcoholism when a genetic factor is suggested.

Studies on adoption include three classical surveys (8, 15, 48), which, in spite of their different methods, reached similar conclusions.

The children of alcoholics raised by nonalcoholic adoptive parents continue to present an elevated degree of alcoholism (a probability four times higher of becoming alcoholic as compared to the control-sample in one of these studies and its follow-up (48, 49). The high level of alcoholism (about 18% in the same survey) is in the same range as among alcoholic children who have remained with their alcoholic natural parents.

Natural parents' alcoholism is not a risk factor for children in regard to other toxicomanias or psychic illnesses.

Environmental factors play only a small role in determining alcoholism.

More recent work leads us to revise such opinions somewhat. It has been demonstrated that natural parents' alcoholism is also a risk factor in toxicomania among adopted children (17) and that the alcoholism of the adoptive family, if research is extended to relatives at one remove, is also a predictive factor for alcoholism in adopted children (16, 18).

As opposed to what was previously believed, thanks to a succession of families over forty years (3), it has been possible to show that environmental alcoholism (the adoptive family's) and family alcoholism

(the natural family's) are both risk factors, but independent.

The existence in adult age of a mediocre socioeconomic condition constitutes a complementary risk for alcoholism in a descendant of drinking parents (94).

In spite of the methodological criticisms raised (74), the isolation of the two kinds of alcoholism (21, 22) has enabled us to specify the respective roles of genetic and environmental factors.

Type I alcoholism, termed " environmental, " begins late, attacks both sexes, is not very severe, and is influenced by environmental factors (bad socioeconomic conditions).

Type II alcoholism is exclusively male. It begins early and is associated with antisocial behavior. It is serious (91), and alcoholic precedents are seen in the family; genetic factors would seem to be involved, whereas socioeconomic factors exert no influence.

There has been an attempt to add a third type to these two, designated " antisocial " (10).

An exclusively female type, transmitted maternally, developing early, and with a worsening evolution, has also been described (9).

Alongside this typology, created by Cloninger et al , others have used a classification subdividing alcoholism into nonfamily and family forms or, rather, those having family precedents, among which bad treatment during childhood could be included (37).

There are some similarities between Cloninger's types I and II and nonfamily and family type alcoholism. Type I alcoholism and the nonfamily type start later and are less serious, as opposed to type II and family alcoholism, whose early start and seriousness have been demonstrated in women (57).

The frequency with which some (97) have found psychiatric manifestations in family alcoholism, both personal and in antecedents, contradicts the data from adoption studies. Discussion remains open.

So-called etiopathogenic classifications thus enable us to discern better the relations between the innate and the acquired.

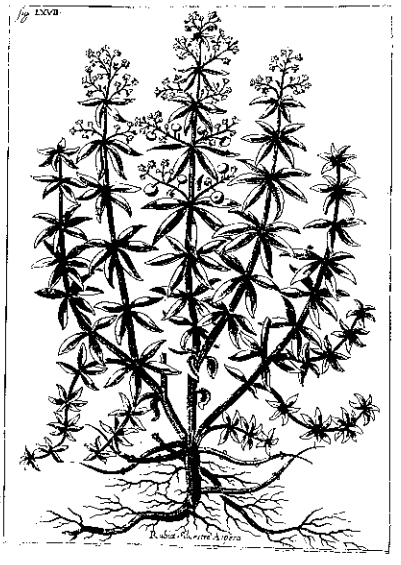
Epidemiological studies have allowed us to establish a strong presumption of a genetic factor in alcoholism, or at least in certain alcoholisms and to isolate populations at risk; but three questions arise here: a) in those populations, can we identify the individuals indicating a predisposition to alcoholism? b) can we specify modes of transmission? and c) can we specify what is transmitted?

Can we identify indicators of a predisposition to alcoholism?

The search for indicators of a predisposition to alcoholism has as its principle the comparison in subjects unaffected by alcoholism of those belonging to a high-risk group (for example, the children of alcoholics) with those belonging to a low-risk group (the children of nonalcoholics). Differences among groups can then be interpreted not as consequences of alcoholic intoxication, but as indicators of predisposition, genetic indicators, is the term used by Schuckit, the creator of this method, which has provided the leading results of late (119).

Basic indicators have been examined.

A reduction of the electroencephalographic wave called P300 appearing in alcoholics has not been found in their children, except in two (4, 92) of three studies (100), and the problem has not been resolved.



This P300 wave is a slowly evoked potential (concealment for 300 milliseconds), normally observed when the subject perceives a rare stimulus he was on the watch for in the midst of other, more frequent ones. It thus testifies to the individual's capacity to pay attention selectively to a hoped-for stimulus.

Attention disturbances and a choleric character were observed by Schuckit (118) in alcoholics' children; on the other hand, he found no link between family alcoholism and residual attention disturbances in adults (75).

In any event, the relation between alcoholism and attention disorders continues to be poorly understood. A childhood overreaction syndrome has been seen by some, but Schuckit did not find it (118).

Cognitive disorders in at-risk subjects in a whole series of studies (69, 120, 131), low verbal IQ, low results in immediate auditory memory tests, inferior comprehension of written texts, more errors on categorization tests, difficulties in resolving abstract problems, and constructive practice disorders.

Other studies have not, however, displayed any difference for memory in attention tests or other knowledge or psychomotor tests (115).

In addition, tests of groups including future alcoholics have shown no convincing correlation between intellectual or psychological characteristics and later appearance of alcoholism (115, 137).

The same can be said of studies on personality (115) or perceptive field dependence, which is the impossibility of extracting a significant stimulus from the whole sensory environment when this anomaly is frequent in the alcoholic (131).

Indicators revealed by dynamic tests have been shown after ingestion of test doses of alcohol (115, 119).

Many of these tests display an innate increase in ethanol tolerance in at-risk subjects:

— Reduced subjective sensations of intoxication with the same alcohol blood level as in the control subjects (112);

— lower decrease in motor results after drinking (119);

— fewer equilibrium disturbancesinvolving swaying or static ataxia (113);

— less disturbance in cognitive and psychomotor tests (115);

— less rise in plasma levels of prolactin (116) and cortisol (117).

Other differences have been described after taking ethanol:

— muscle relaxation which is significantly greater in high-risk subjects in repose (114);

— yielding of cardiovascular reactivity to stressors in at-risk children; in a fasting state it is superior to that of control subjects. Hence the conclusion that the children of alcoholics are more sensitive to stress and that alcohol reduces that sensitivity (39), reducing psychological stress responses (70);

— increase on the electroencephalogram of alpha slow waves (101), frequently diminished in alcoholics and sometimes in their children. If the amount of alpha rhythm is linked to sensations of relaxation, alcohol may correct hypoactivity in at-risk subjects, thus contributing a feeling of pause and relaxation (50, 115).

A dynamic test for simulation in TRH has shown that the basic TSH levels and peaks after simulation are higher in at-risk subjects than in control subjects, in the male sex alone (82). It is the first result to establish a neuroendocrine difference among the children of alcoholics and the children of nonalcoholics which is found in boys alone.

There is a real hope that in the future possible biochemical indicators will be at hand. We shall return to this point.

What are the modes of genetic transmission?

The clearly superior frequency of alcoholism in the male sex has not led us to think of a sexually linked transmission.

This hypothesis of sexually linked transmission has been criticized as follows:

in the case of Y chromosome anomaly, all the male children of an alcoholic father would have to share identical Y chromosomes with him (24);

in the case of X chromosome anomaly, for which a recessive-type transmission was alleged (127), 50% of siblings who are children of alcoholic fathers would have to be affected, for the mother would distribute her X chromosome-linked genes, the recessive one for alcoholism and the normal one equally among her children. If the parents of certain alcoholics were such, in turn, 50% of their sisters ought to be affected by alcoholism, since that proportion of sisters would have received a recessive gene for alcoholism from their fathers and another from their heterozygotic mothers.

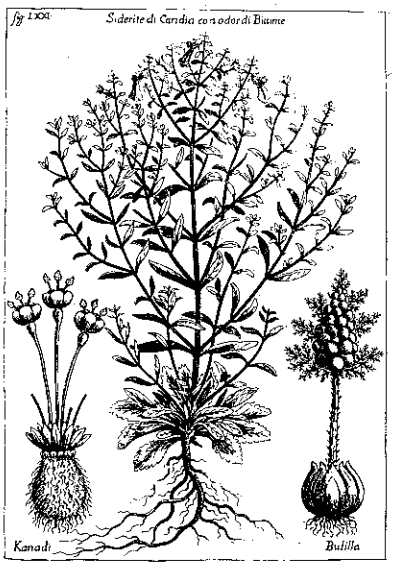
Clinical observations do not confirm any of these hypotheses. Studies on alcoholic families unanimously show that there is a high frequency of alcoholism in the fathers of alcoholics, but not in their sisters (140).

For example, in a study on recorded data, alcoholism was not more frequent in the children of alcoholic mothers than among those born to the children of alcoholics, when in reality it should have been (68).

Autosomic transmission has been proposed (68). The sensibly identical risk of fathers, brothers, and grandchildren does not support recessive, but dominant transmission. With the frequency of alcoholism inferior to 50% in each generation, a variable genetic expression would be possible, particularly modulated by environmental factors.

In fact, alcoholism presents itself increasingly as a polygenic multifactor disorder combining an association among multiple genes and environmental factors with a capacity for limited penetration (119), according to the following outline by Mandel, which is simplified and very general (77).

It is clear that for alcoholism the facts are much more complex, and among the systems involved there might be interventions by chromosomes 4, 6, 11, and 19, among others (7, 28, 58).



What are the anomalies transmitted?

Such anomalies, which are still the subject of research, might bring with them a special vulnerability to the different types of action of ethyl alcohol (ethanol), which is a metabolic mediator, psychotropic, potentially a dependence-producing drug, and a toxin for internal organs: these different effects may be more or less united or dissociated in a single subject.

As many identify alcoholism with alcohol dependence, we shall limit ourselves essentially to recalling the possible involvement of genetic factors in such dependence, situating them somewhat artificially in the framework of three major physiopathological perspectives which are in fact complicated; the progressive evidence of them, which does not yet permit a general synthesis, has constituted the main event in alcohology over the last twenty years, namely,

— the theory of the condensation of biogenic amines;

— the theory of membranes;

— the involvement of neuromediators.

The considerations which follow will remain on a phenomenological level without taking on the general epistemological problem of the neurosciences.

The Theory of Condensation of Biogenic Amines

Three paths converge in the intrahepatic oxidation of ethanol in acetaldehyde (about 90% of alcohol consumed): the path of alcohol-dehydrogenesis (ADH) is the main one; the path of the microsomial oxidizing system, which comes into play when there is appreciable chronic alcoholization and involves the P450 cytochrome, which is the ancillary path of catalysis

Acetaldehyde becomes acetate through the action of the single path of acetaldehyde dehydrogenesis (ALDH). This acetate is catabolized, in turn, into acetyl coenzyme A, with different destinations (Krebs cycle, etc).

An increase of acetaldehyde in the blood produces an increase in heat and flushing on the face, with a drop in pressure. Moreover, as we shall see, it is capable of combining with biogenic amines to yield morphine-like substances.

ADH and AIDH in fact represent families of genetically determined isoenzymes whose activity is variable according to the form considered; hence there are variations in the degrees of acetaldehyde through either excess production or insufficient degradation.

ADH is a dimetric enzyme constituted by two subunits. Five types of subunits have been located, each codified at a different locus, from ADH 1 to ADH 5: a (ADH1), b (ADH2), (ADH3), p (ADH4), and c (ADH5). The sites ADH 1, 2, 3 and 5 are located on the long arm of chromosome 4, between q21 and q24 (123, 124). A genetic polymorphism is manifested in sites ADH2 and ADH3. The subunit b, codified by ADH2, comprehends three different types (b1 , b2 , b3), and the subunit codified by ADH3 comprehends two (1, .2). Identical units generally generally group together, forming homodimeric isoenzymes; however, the subunits a, b, and c can combine to form heterodimers.

The use of specific oligonucleotide probes for mutations and amplification of DNA segments has brought significant progress, for it permits accurate analysis of small amounts of blood, epithelial cells, or hair roots (143).

In all, eight ADH isoenzymes have up to now been located (Table). The forms (homozygote and heterozygote) involving the subunit b2 are called atypical ADH and Berne ADH, from the name of the city where they were discovered; likewise, the ADH3 form (b3 b3) is called Indianapolis. At present we are familiar with the series of forms ADH 1 (b1 b1), ADH 2 (b2 b2), and ADH 1 (1 1).

The isoenzymes playing the leading physiological role are codified by the sites ADH 1 a 3; they belong to the same class of isoenzymes called ADH in class 1 (41), and isoenzyme ADH2 (b2 b2) is particularly active (129).

ALDH is a homotetradimeric enzyme. There are four main isoenzymes in human tissue: ALDH1, ALDH2, ALDH3, ALDH4. These four isoenzymes seem to be codified by four independent genes. In man, the locus of the codifying gene for ALDH1 is situated on the long arm of chromosome 9, and those of ALDH2 and 3, respectively, on chromosomes 12 (long arm) and 17 (63, 108).

Only the forms ALDH1 and ALDH2 an in vivo role in oxidizing acetaldehyde (41), a genetic polymorphism has been demonstrated at site ALDH2, where there is a phenotype characterized by an inactive form.

This brings a lack of degradation of acetaldehyde, an alcohol sensitivity syndrome, with facial flushing, tachycardia, epigastric burns, and muscular debility identical to the antabuse effect observed after ingestion of alcohol in alcoholics treated with disulfiram, a powerful inhibitor of ALDH.

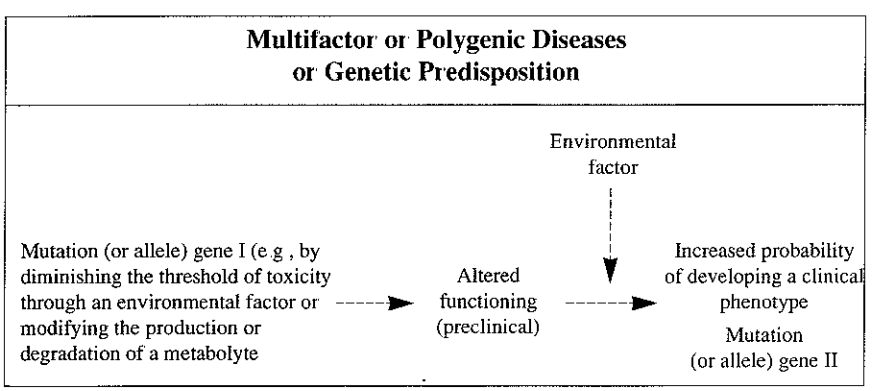
44% of the Japanese have a ALDH2 deficit and are thus " flushers. " This fact is equally frequent among the Chinese and in a great part of the Far East, whereas the deficit has not been found in Europe (41, 44, 45, 46).

Among Caucasians not presenting an ALDH2 deficit, flushes could be explained by inactive variants of ALDH1 (144).

Flushes from excessive production of acetaldehyde linked to the presence of hyperactive ADH2 (b2 b2) are possible (128); but in spite of the high frequency of this enzyme among the Japanese (85%) and inhabitants of the Far East, the event is secondary.

This sensitivity to alcohol might have an adverse effect, and, in reality, Japanese alcoholics rarely present an ALDH2 deficit, as opposed to the general population (2% versus 43%) (55) virtually negligible.

When two populations presenting a high percentage of flushed subjects American Indians and Chinese are compared, we observe a clearly superior frequency of alcoholism in the former. Likewise, in Caucasian subjects considered to be high-risk for alcoholism because they have at least one blood relation who is alcoholic, the frequency of flushing is greater than in those lacking such a family precedent (10% versus 3%). The adverse effect of flushing might be secondarily overcome through biological, psychic, or social factors, and the maintenance or repetition of high acetaldehyde levels in the blood of



flushing subjects might, paradoxically, favor the appearance of alcoholism (111).

It has been effectively shown that in vitro or in animal tissues there could occur a condensation between acetaldehyde and various neuromediators, pinephrine, norepinephrine, dopamine, serotonin with the formation of tetraisoquinolines (TIQ), tetrahydropapaveroline (THP), and salsolinol, products which can all be regarded as "morphine-like" (23, 30).

The observation of an increase in voluntary consumption of alcohol in animals, by cerebral intraventricular injection of some of these products (1, 80, 86, 87, 88), and the erroneous belief in a persistence of decreased cytosolic hepatic activity in the alcoholic as a result of privation (134) were among the arguments which led to the conception of an alcoholic disease of genetic origin linked to an initial lack of ALDH activity and hence a patent or latent hyperacetaldehydism as a source of condensation of biogenic amines close to the opiates which brought on alcohol dependence.

This theory was highly criticized, or, among other things, in contrast to initial observations, an increase was observed in ALDH activity after abstinence in the alcohol dependent (40, 67, 73).

Nevertheless, we have been able to observe the presence of salsolinol in man's brain, with high levels in the alcoholic (122).

The debate is continuing.

Membrane Theory

Alcohol's action on the membrane lipids is such that in acute alcoholization membrane fluidity increases; and in chronic alcoholism it produces a "membrane rigidity" correlating with tolerance of alcohol (29).

In abstinence, the fluidifying effect disappears, whereas rigidity temporarily persists; hence a decrease in intercellular exchanges arises, along with the withdrawal syndrome of trembling, malaise, etc.

Alcohol also acts on membrane protein receptors, ion channels, and enymes, with the possibility, among other things, of an apparent decrease in the number of receptors ("down regulation") or separation of the adenyl-cyclase AMP-cyclic protein kinase, and its disturbance could play a role in abstinence and the mechanism of physical dependence (103, 107, 130).

Multiple enzyme phenomena are thus involved, such as adenosinetriphosphatase activities (42, 65) and disturbances in action by neurotransmitters, hence disturbances in transmembrane ionic exchanges, possibly a source of physical dependence.

Now, we know that one of the modes of alcohol aggression in membranes is through the free radicals (89), and we find that the superoxidodysmutase involved in the oxidizing stress of the radicals is connected with chromosome 21 (34).

Comparing series of animals not very sensitive to alcohol to those which are quite sensitive, we have objectified greater membrane fragility in the latter (47).

Genetically transmittable variations have been cited (7) for second messenger response mechanisms (42, 105).

In this way the role of the genetic factor is suggested for membrane quality. It would induce innate membrane vulnerability, with a predisposition to the aforementioned alterations.

Involvement of Neurotransmitters

They are an important part of the theory on condensation of biogenic amines and of membrane theory. Anomalies (7) produced by their liberation or recapture are possible (6).

A commonly accepted general hypothesis can be applied to the neuromediators; it admits that individuals genetically predisposed to alcoholism should previously present a deficit in a biochemical process necessary for the sensation of well-being.

Now, alcohol would produce a biphasic effect in them. At a first stage of stimulus of processes, the consumption of alcohol correcting the deficit would bring with it a sensation of enormous well-being, but at a second stage alcohol would depress this process.

Consequently, individuals with a deficit would have two reasons to consume alcohol. They would start drinking to correct their initial biochemical deficit; afterwards, they would go on drinking to correct the more important deficit resulting from the biphasic effects of alcohol, with reduced reactivity of the reward system (50).

In this way, neurochemical mechanisms of behavioral reinforcement might be involved (re-

Genetic Model of ADH

Gene	Allele	Subunit	Class
ADH1	ADH1	a	I
ADH2	ADH1-2	B1	I
	ADH2-2	B2	I
	ADH3-2	B3	I
ADH3	ADH1-3	1	I
	ADH2-3	2	I
ADH4	ADH4	π	II
Gene	Allele	Subunit	Class
ADH5	ADH5	X	III

Jury et al (41) from Bosrin et al. (13)

ward) in specific brain areas, which we now know constitute the connection for the experience of pleasure and, for the same reason, of motivation for behavior based on the reward/punishment pairing.

Among other neuromediators serotonin and GABA would be particularly involved in the phenomena of alcohol dependence.

The observation of an increase in thrombocyte capture of serotonin in alcoholics, which persists after abstinence, fits well into the general outline previous described, though we still do not know if an acquired or innate anomaly is involved (59).

As for GABA, a genetic factor is suggested by the demonstration, in the different series of animals studied, of differences in manifestations of sensitivity to alcohol in which GABA is involved (2) (56).

In regard to dopamine, there is a disappointment: we thought we could establish a connection between early, serious alcoholism and an A1 mutation of the dopaminergic receptor D2 situated in the q22-q23 region of chromosome 11.

Probes had been effected on brain tissue proceeding from autopsies of 35 healthy individuals and 35 alcoholics; the latter were included retrospectively by concordant diagnosis in the dossier of two psychiatrists working separately.

Molecular biology techniques (frequency distribution of DNA) were used with restraining enzymes which cut DNA into quite specific nucleotide series. Brain tissue samples were treated with four of them.

In fragments originating from the action of TAQL enzyme two alleles of the gene for D2 receptor of dopamine were detected, A1 and A2. The A1 allele was present in 77% of alcoholics and absent in 72% of healthy samples (7).

A later in vivo investigation (11) on lymphocyte cells proceeding from 127 healthy individuals and 40 alcoholics, including eight with an antisocial personality, did not provide confirmation. The alcoholics had been included according to DSM III-R criteria, completed by psychometric questioning.

Two markers were used, one of which, TAQL, as in the first study.

No difference was observed in the A1 allele between alcoholics and the healthy. In two families in which alcoholism closely linked to genetic factors could be pointed to, the segregation of TAQL polymorphism and that of alcoholism were done independently.

In the general framework of initial biochemical deficit temporarily corrected by ethanol before being aggravated by it we may include the

Frequency of ALDH2 Deficiency in American Indians, Asians, and Other Populations

Population	Size of the Sample	%of Deficiency
South American Indians	296	42
North American Indians	189	4
Asians		
Population	Size of the Sample	%of Deficiency
Japanese	184	44
Chinese	633	25-50
Koreans	75	27
Vietnamese	138	53
Indonesians	30	39
Thais	110	8
Filipines	110	13
Other populations		
Germans	300	0
Africans	507	0
Turks	65	0
Israelins	37	0
Hungarians	177	0
Asian Indians	50	0

anomalies of the b-endorphins released in acute alcoholism, diminished in chronic alcoholism, and demonstrably related to genetic factors on the basis of its precursor: propiomelanocortina (POMC) (136).

A whole series of facts could orient future research.

On the one hand, the objectification of a physiopathological anomaly involved in the processes of alcoholism may lead to the demonstration of genetic markers or, thanks to molecular biology techniques, of the gene or genes directly involved; on the other, there may be proof of a relational imbalance, the observation of a frequency superior to that of the general population which brings together specific data and the disorder considered (alcoholism, in this instance). Such an association suggests the existence of a gene situated in a locus close to that of the gene treated and allows us to assume the presence of the latter.

The phrase « candidate gene » was seen to be particularly fitting (52, 77, 85).

This enters into a general framework of reasoning, like that appearing in the accompanying table, originating in Mandel (77).

We shall limit ourselves to citing, without comment, some data able to lead us to the discovery of markers or genes, namely:

— a significant increase in tyrosine hydroxylase in the brain of alcohol-preferring rats (99);

— an increase in the activity of dopamine b-hydroxylase as an element predictive of high consumption (35)? notion not confirmed;

— an increase in a metabolite of norepinephrine (MDPEG) in the plasma of the alcohol-dependent (12);

— a decrease in monoamine oxidase activity which may be observed not only in alcoholics (76), but also in their children (93), though nonspecific (142);

— the possibility of a genetic relation between D esterase and the ESD locus on chromosome 13-q (138);

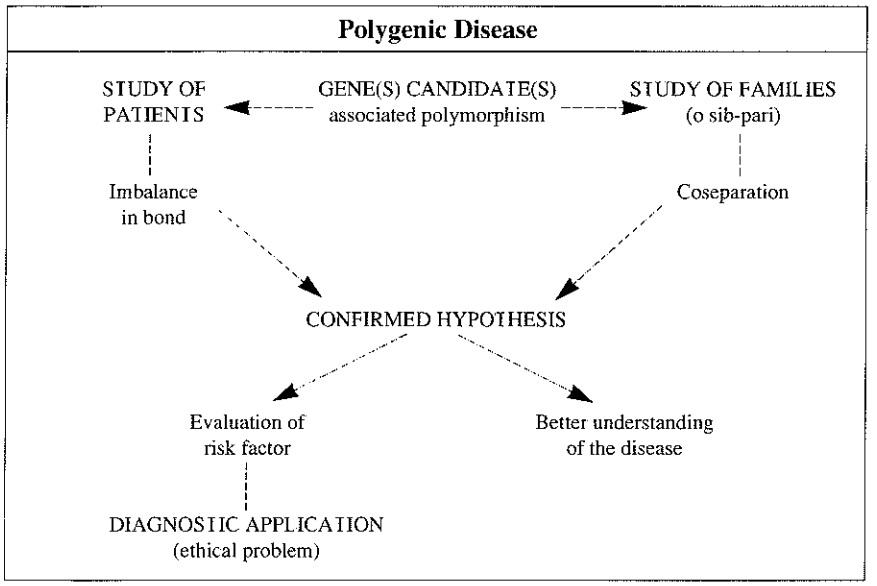
— the significant differences involving arylsulfatase A (64) and phospholipase D (84) between alcoholics and the healthy;

— a decrease in adenyl-cyclase activity, linked, as we have seen, not only to alcohol, but perhaps of genetic origin (130);

— molecular modifications of transferrin through inhibition of sialyltransferase and desialylation under the effect of alcohol could bring modifications in the degree of membrane organization (109) with respect to dependence phenomena;

— the existence of a special alcohol-induced P 450 cytochrome, P 450 II E1, involved in the MEOS path playing a leading role in alcohol tolerance (31, 72, 125);

— the existence of a higher level of chromosome aberrations in alcoholics than in the healthy which disappears in the years of abstinence (78).



As for blood groups, a high degree of association between group A and alcoholism (90) has not been confirmed; and a significant increase in salivary nonsecretors of ABH substances in blood groups among alcoholics might be simply a consequence of alcoholism (19) (49).

More recently, a genetic relationship has been pointed to between the M-N-S blood group, codified by a gene in chromosome 4, and alcoholism (58).

In regard to HLA antigens, Devor et al. (31) and Tabakoff et al. (130) present studies establishing, respectively, a) increased frequency of association with HLA B40 and HLA DR4 and decreased frequency for HLA DR3 and b) a more frequent CW3 phenotype (121) the greater liver damage suffered, the higher the frequency.

Some include in alcoholism the organic complications from alcoholization, and we shall briefly allude to this with some examples.

Vulnerability to the risk of alcoholic cirrhosis was thought to be related to the histocompatibility antigen HLA B 8 in the English, HLA B 13 in Chileans, and HLA DW 40 in the Nordic (66). But later studies have not confirmed these results (36, 43, 81, 98). Other studies were reviewed by Devor et al. (31).

Some have found among cirrhosis sufferers a significant presence of the antigens HLA B 15 and DR4, with a higher frequency in both cases of antibodies of the hepatitis B virus, perhaps linked to an anomaly in immune response (32).

Certain results suggest a polymorphism in the collagen genes studied with the alpha 2 collagen probe (145).

This indicates the complexity of the question.

A connection between cirrhosis and color blindness was recalled, connection regarded as related to



recessive transmission linked to chromosome X (27). This connection was not found (104, 135), and ocular disturbances seemed to be a result of alcoholization (38).

In chronic alcoholic pancreatitis increased frequency of antigens HLA B40 and HLA B 39 (138) has been pointed out.

Genetic anomalies have been observed in nervous complications of alcoholism, as in the Wernicke-Korsakoff syndrome, for instance (5) (102).

A good many clinical factors suggest a genetic component in the metabolic effects of ethanol, hyperlipemia, glycemia, hyperuricemia, etc., but there are apparently no basic studies on the subject.

Animal studies lead to general proof of greater theoretical importance:

— the notion of different responses to identical experimental protocols in relation to varying lineages implies the role of genetic factors (33, 79);

— the possibility of obtaining results by way of a selection carried out over many years involving lineages of rats differing greatly in their propensity towards alcohol as a spontaneous choice, when in principle this animal rejects alcohol. This represents a basic piece of information (71)

Epidemiological studies have thus provided strong support for the genetic factor in the origins of alcoholism, in spite of certain divergent, if not outright contradictory, results giving rise to methodological criticisms (14, 74) of, among other things, aspects of recruiting or the choice of a mathematical model.

In this way, studies on markers of genetic predisposition to alcoholism have provided very interesting results, theoretically, but there is still no usable marker for current practice.

Basic scientific studies have also demonstrated with certainty the genetic origin of sensitivity to alcohol in " flushers, " but they have still not arrived, in spite of numerous arguments concerning probability, at such certainty for alcohol dependence, and criticism of a very general order has been made of the notion of genetic factors in alcoholism (96), particularly as regards its specificity (61).

Nevertheless, alcoholism might represent a polygenic multifactorial disorder combining an association among multiple genes with limited penetration and environmental factors.

Without going into the different discussions, we shall limit ourselves to three observations:

1. There is a notable contrast between highly sophisticated, precise methodologies used in different studies and the conceptual imprecision of criteria for inclusion in such studies.

In effect, the semantic difficulties ought to be stressed. In many studies the same term, " alcoholism, " is used to designate totally different realities, extending from the observation of crimes related to acute alcoholism and appearing in police records to alcohol dependence, including " heavy drinkers, " and so on.

The composition of DSM III, an American psychiatric manual describing diagnoses by isolation of groups of alcoholics, has represented progress in this field, for it has helped to speak of more homologous facts, placing the notion of alcohol dependence in the foreground.

But alongside the latter it has introduced the term " abuse, " which in the text can only call to mind psychic dependence.

2. The strong assumption of a genetic factor in alcoholism brings out the role of the field, which should be taken into consideration along with the amounts absorbed, and account for individual variations in relation to alcohol.

It follows that the term " abuse " has a connotation of excess opposed to a norm, with a nuance of underlying condemnation making it appear inopportune (60) or inadequate (103).

This no longer reflects the current state of knowledge, for it conceals the notions of field and vulnerability in favor of a purely quantitative problematic, when what matters here is room for freedom in the face of the product.

It is lamentable that, in spite of clearly expressed criticisms (106, 133), the revised edition of DSM III, DSM IIIR, maintains, of course, in a renewed manner, this notion of abuse.

In our view, the term " abuse " paralyzes the message of primary prevention, at least in the French sociocultural environment, and may lead to obstructing dialogue with alcoholics.

3. We also ought to stress that for the alcohol's descendants there is no fatally ordained alcohol dependence. In order for it to appear, not only must the descendant be a bearer of the genetic anomaly, but he must encounter psychological and social factors triggering it; and the following framework might be proposed from a simplified standpoint.

In an initial eventuality, we may speak of the disease of alcoholism; a complete group of varied biopsychosocial factors would act as a specific cause, and alcohol dependence would situate itself, within the confines of the innate, linked to the genetic factor, and the acquired, basically the triggering psychological and social factors.

In a second eventuality, where biological vulnerability is lacking in the absence of a genetic factor, we would be faced with symptomatic alcoholism, involving either psychic difficulties or social problems.

The disease of alcoholism and symptomatic alcoholism would be integrated into the framework of the alcoholic syndrome.

According to another formulation, we would then encounter a classification into primary and secondary alcoholism (103).

The assumption of a genetic component in the origins of alcoholism and the new physiopathological approaches related to it are of great interest.

They imply that we should definitively cease to maintain a moralizing judgment of the alcoholic and that he has the right to respect, like any other sick person, without his having to feel rejected more or less explicitly by those caring for him.

They also imply that the normative concepts on moderate consumption and the threshold of security below which one may drink without any danger are false, for they do not include the notion of variableness, plausibly of a genetic order, and vulnerability to alcohol.

They likewise imply that in health education we ought to abandon messages of a merely quantitative nature to speak of " alcohol risk, " which does not prejudge either the amounts consumed or the vulnerability proper to the subject.

Finally, they arouse the hope of being able to specify in the future the populations at risk and able to benefit from measured information and prevention which is thus better adapted and more effective.

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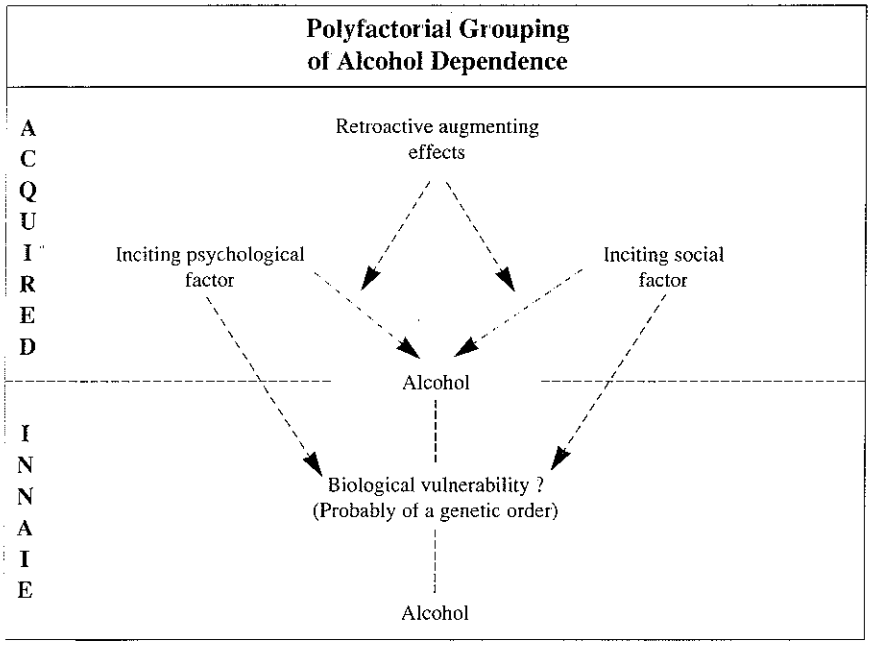
Polyfactorial Grouping of Alcohol Dependence



Bibliografia

1. AIRAKSINEN M.M., MÄHÖNEN M., TUOMISTO L., PEURA P., ERIKSSON C.J.P. *Tetrahydro-β-carbolines: effect on alcohol intake in rats.* Pharmacol Biochem. Behav, 1983, *18* (supplt I), 525-529
2. ALLAN A.M., SPUHLER K.P., HARRIS R.A. *γ-aminobutyric acid-activated chloride channels: relationship to genetic differences in ethanol sensitivity.* The Journal of Pharmacology and Experimental Therapeutics, 1988, *244*, 866-870.
3. BEARDSLEE W.R., SON L., VAILLANT G.E. *Exposure to parental alcoholism during childhood and outcome in adulthood: a prospective longitudinal study* Br J Psychiatry., 1986, *149*, 584-591
4. BEGLEITER H., PORTESZ B., BIHARI B., KISSIN B. *Event-related brain potential in boys at risk for alcoholism* Science, 1984, *225*, 1493-1496.
5. BLASS J.P., GIBSON G.E. *Abnormality of a thiamine-requiring enzyme in patients with Wernicke-Korsakoff syndrome.* New Engl. J Med, 1977, *297*, 1367-1370
6. BLUM K., BRIGGS A.H., TRACHTENBERG M.C. *Ethanol ingestive behavior as a function of central neurotransmission.* Experientia, 1989, *45*, 444-452
7. BLUM K., NOBLE E.P., SHERIDAN P.J. et al. *Allelic association of human dopamine D2 receptor gene in alcoholism* J.A.M.A., 1990, *263*, 2055-2060
8. BOHMAN M. *Some genetic aspects of alcoholism and criminality.* Arch. Gen. Psychiatry, 1978, *35*, 965-969.
10. BOHOMAN M., CLONINGER R., SIGVARDSSON S., VON KNORRING A.L. *The genetics of alcoholism and related disorders.* J Psych Res, 1987, *21*, (4), 447-452.
11. BOLOS A.M., DEAN M., LUCAS-DERSE S. et al. *Population and pedigree studies reveal a lack of association between the dopamine D2 receptor gene and alcoholism.* J.A.M.A, 1990, *264*, (24), 3156-3160.
12. BORG S., KVANDE H., SEDWALL G *Central norepinephrin metabolism during alcohol intoxication in addicts and healthy volunteers.* Science, 1981, *213*, 1135-1137.
13. BOSRON W.F., LI T K. *Genetic polymorphism of human liver alcohol and aldehyde dehydrogenases and their relationship to alcohol metabolism and alcoholism* Hepatology, 1986, *6*, (3), 502, 510.
14. BROWN S.A., CREAMER V.A. *Implications for intervetions of family history of alcohol abuse.* Alcohol Health Research Wordl Winter, 1987/88, 120-124
15. CADORET R.J., CAIN C.A., GROVE W.M. *Development of alcoholism in adoptees raised apart from alcoholic biologic relatives.* Arch. Gen. Psychiatry, 1980, *37*, 561-563.
16. CADORET R.J, O'GORMAN T.W., TROUGHTON Ed., HEYWOOD E. *Alcoholism and antisocial personality.* Arch. Gen. Psychiatry., 1985, *42*, 161-167.
17. CADORET R.J, TROUGHTON Ed, O'GORMAN T.W., HEYWOOD E. *An adoption study of genetic and environmental factors in drug abuse.* Arc. Gen. Psychiatry., 1986, *43*, 1131-1136.
18. CADORET R.S., TROUGHTON Ed., O'GORMAN T.W. *Genetic and environmental factors abuse and antisocial personality* J. Stud. on Alcohol, 1987, *48*, (1), 1-8.
19. CAMPS F.E *Genetic and alcoholism.* Ann. NY. Acad Sci., 1972, *197*, 134-137.
20 CLIFFORD C.A., HOPPER J.L., FULKER D.W., MURRAY R.M. *A genetic environmental analysis of a twin family study of alcohol use and depression* Genetic Epidemiology, 1984, *1*, 63-79.
21. CLONINGER C.R., BOHMAN M., SIGVARDSSON S. *Inheritance of alcohol abuse - Cross-fostering analysis of adopted men.* Arch. Gen. Psychiatry., 1981, *38*, 861-868.
22. CLONINGER C.R., SIGVARSSON S., VON KNORRING A.L., BOHMAN M. *The Swedish studies of the adopted children of alcoholics: a reply to Littrel.* J Stud. on Alcohol, 1988, *49*, 500-509.
23. COHEN G., COLLINS M. *Alkaloids from cathecholamines in adrenal tissue Possible role in alcoholism.* Science, 1970, *167*, 1749-1751.
24. COOK C.C.H *Genetics of alcoholism Br. J. Psychiatry, 1990, 156*, 284.
25 CORSICO R., PESSINO O.L, MORALES V. et al. *Association of HLA antigens with alcoholics disease.* J. Stud. on Alcohol, 1988, *49*, 546-550.
26. COTTON N.S *The familial of alcoholism. A review.* J. Stud on Alcohol, 1979, *40*, 89-116.
27. CRUZ-COKE R., VARELA A. *Inheritance of alcoholism. Its association with colour blindess.* Lancet, 1966, *2*, (7476), 1282-1284.
28. CRUZ-COKE R. *Nuevos avances en la genética del alcoholismo* Rev. Med Chil., 1985, *113*, (5), 463-468.
29. DAOUST M., LEGRAND E., HENRY J P. *Mécanismes actuels des phénomènes de tolérance et de dépendance à l'alcohol.* Alcologie, 1990, *12* (supplt au n° 2), 3-9.
30 DAVIS V.E., WALSH M.J. *Alcohol, amines and alkaloids. A possible biochemical basis for alcohol addiction.* Science, 1970, *167*, 1005-1007
31 DEVOR E.J., CLONINGER R.C. *Genetics of alcoholism.* Annu Rev Genet, 1989, *23*, 19-36
32. DOFFOEL M., TONGIO M.M, GUT J P. et al. *Relationship between 34 HLA-A HLA-B and HLA-DR antigens and three serological markers of viral infections in alcoholic cirrhosis* Hepatology, 1986, *6*, (3), 457-463
33 EBEL A., STROSSER M.T., BESNARD F., KEMPF E. *Reponse de neurotransmetteurs centraux à une intoxication alc olique de longue durée. Influence du génotype.* Les Caiers de l'IREB, 1987, (8), 103-116.
34. EMERY A.E.H., traduit de l'anglais par FORTIN L. *Génétique Médicale* Masson Edit Paris New York Barcelone 1986
35. EWING J.A, ROUSE B.A., MILLS K.C. *Dopamine β-Hydroxylase activity as a predictor of response to alcohol.* Jap J. Stud Alcohol, 1975, *10*, (3), 61-69.
36. FAIZALLAH R., WOODROW J.C., KRASNER N.K., WALKER R.J., MORRIS A.I. *Are HLA antigens important in the development of alcohol-induced liver disease.* Br. Med. Journal, 1982, *285*, 533-534
37 FAMULARO R, STONE K., BARNUM R., WHARTON R. *Alcoholism and severe child maltreatment* Am J Orthopsychiat. 1986, *56*, 481-485.
38. FIALKOW P.J., THULINE H.C., FENSTER L.F. *Lack of association between cirrhosis and the common types of color blindness.* New Engl J. Med., 1966, *275*, 584-587
39 FINN P.P, PHIL R.O. *Men at high risk for alcoholism: the effect of alcohol on cardiovascular response to unavoidable shock.* J. Abnorm. Psychol., 1987, *96*, (3), 230-236.
40. FLEURY B, SARMINI H., COUZIGOU P. et al. *Evolution de l'activité aldéhyde deshydrogénase sanguine chez le sujet dépendant de l'alcohol au cours du sevrage.* Ann. Biol. Clin (Paris), 1985, (43), 628.
41 FLEURY B., NALPAS B, COUZIGOU P. et al. *Les isoenzymes de l'alcol deshydrogénase et de l'aldéhyde deshydrogénase: rôle dans le métabolisme et la toxicité hépatique de l'alcol.* Gastroenterol. Clin. Biol., 1988, *12*, 912-920.
42. GHANDI C.R, ROSS D.H. *Influence of ethanol on calcium inositol phospholipids and intracellular signalling mechanism.* Experientia, 1989, *45*, 407-413.
43 GLUUD C., ALDERSHVILE J., DIETRICHSON O. et al. *Human leucocyte antigens in patiens with alcoholic liver cirrhosis.* Scand. J Gastroent, 1980, *15*, (3), 337-341



44 GOEDDE H.W., HARADA S., AGARALW D.P. *Racial differences in alcohol sensivity - A new hypothesis* Hum Genet, 1979, *51*, 331-334.

45 GOEDDE H.W., AGARWAL D.P., HARADA S. et al. *Aldehyde dehydrogenase polymorphism in North America, South American and Mexican Indian Populations* Am J Hum Genet, 1986, *38*, 395-399.

46 GOEDDE H.W., AGARWAL D.P. *Polymorphism of aldehyde dehydrogenase and alcohol sensivity* Enzyme, 1987, *37*, 29-44.

47 GOLDSTEIN D.B., CHIN J.H., LYON R.C. *Ethanol disordering of spin-labeled mouse brain membranes: correlation with genetically determined ethanol sensivity of mice.* Proc. Natl. Acad. Sci, U.S.A., 1982, *79*, 4231-4233.

48 GOODWIN D.W., SHULSINGER F., HERMANSEN L. et al. *Alcohol problems in adoptees raised apart from alcoholic biological parents* Arch Gen. Psychiatry, 1973, *28*, 238-243

49 GOODWIN D.W. *L'alcolisme est-il une maladie familiale? La génétique de l'alcolisme.* Le Concours Médical, 1981, *103*, (37), 5863-5881.

50 GOODWIN D.W. *Alcolisme et Hérédité* Alcologie, 1989, *11*, (3), 180-185.

51 GOODWIN D.W. *The genetics of alcoholism.* Res. Publ. Assoc Res Nerv. Ment Dis, 1991, *69*, 219-226 Genes Brain and Behavior. Edit. P.R. Mc Hugh and V.A. Mc Kusick, Raven Press, Ltd New York, 1991.

52 GORDIS E., TABAKOFF B., GOLDMAN D., BERG K. *A la recherche des gènes de l'alcolisme.* J.A.M.A. H (édité en français), 1990; *2* (12), 591-593.

53 GOSSELIN M., FAUCHET R., GENETET B., GASTARD J. *Les antigènes HLA dans la pancréatite chronique.* Gastroenterol Clin. Biol., 1978, *2*, 883-886.

54 GURLING H., MURRAY R.M. *Genetic influence, brain morphology and cognitive deficits in alcoholic twins. In.* GOEDDE H.W., AGARWAL D. *Genetics and alcoholism - Proceedings of the international Titisee Conference Hambourg 28-30 septembre 1986* Progress in Clinical and Biological Research, 1987, *241*, 71-82, LISS AR New York

55 HARADA S., AGARWAL D.P., GOEDDE H.W., ISHIKAWA B. *Aldehyde dehydrogenase isozyme variation and alcoholism in Japan* Pharmacol Biochem. Behav., 1983, *18*, (supplt I), 151-153.

56 HARRIS R.A., ALLAN A.M. *Alcohol intoxication: ion channels and genetics.* FASEB, 1989, *3*, 1689-1695.

57 HARVER B. *Female alcohoics V. The relationship between family history of alcoholism and outcome 3-10 years after treatment.* Acta Psychiatr. Scand., 1987, *76*, 21-27.

58 HILLS S.Y., ASTON C., RABIN B. *Suggestive evidence of genetic linkage between alcoholism and the MNS blood group* Alcohol Clin. Exp. Res., 1988, *12*, 811-814.

59 HILLEMAND B., LHUINTRE J.P., DAOUST M. et al. *Alcoldépendance et sérotine, données nouvelles.* Bull. Acad. Natle Med, 1986, *170*, (8), 1045-1050.

60 HILLEMAND B, JOLY J.P., LHUINTRE J.P. et al. *De l'inopportunité du terme abus en alcologie.* Bulletin de la Société Française d'Alcologie, 1987, *9*, (3), 29-33

61 HOLDEN C. *Probing the complexe genetics of alcoholism* Science, 1991, *251*, (4990), 163-164

62 HRUBEC Z., OMEN G.S. *Evidence of genetics predisposition to alcoholic cirrhosis and psychosis: twin concordances for alcoholism and its biological end points by zygosity among male veterans.* Alcohol. Clin. Exp. Res., 1981, *5*, (2), 207-215

63 HSU L.C., YOSHIDA A., MOHANDAS T. *Chromosomal assignement of the genes for human aldehyde dehydrogenase-1 and aldehyde dehydrogenase-2* Am. J. Hum Genet., 1986, *38*, 641-648

64 HULYALKAR A.R., NORA R., MANOWITZ P. *Arylsulfatase A variants in patients with alcoholism.* Alcohol. Clin. Exp. Res., 1984, *8*, 337-341

65 ISRAEL Y., KALANI H., LAUFER I. *Effects of ethanol on Na, K, Mg - stimulated microsomal ATPase activity.* Biochem Pharmaco., 1965, *14*, 1803-1814.

66 JENKINS W.J., THOMAS H.C. *Genetics factors in determining susceptibility to alcohol dependance and development of alcohol induced liver disease.* Clinics in Gastroenterology, 1981, *10*, (2), 307-314

67 JENKINS W.J., CAKEBREAD K., PALMER K.R. *Effect of alcohol consumption on hepatic aldehyde dehydrogenase activity in alcoholic patients* Lancet, 1984, *1*, 1048-1049.



68 KNOP J., TEASDALE T.W., SHULSINGER F., GOODWIN D.W. *A prospective study of young men at high risk for alcoholism - Schol behaviour and achrevement.* J. Stud. on Alcohol 1985, *46*, (4), 273-278.

70 LEVENSON R.W., OYAMA O.N., MEEK P.S. *Greater reinforcement from alcohol for those at risk parental risk, personality risk and sex.* J. of Abnormal Psychology, 1987, *96*, (3), 242-253.

71 LI T.X., LUMEN L., MC BRIDE W.J., MURPHY J.M. *Rodent lines selected for factors affecting alcohol consumption* Alcohol Alcohol, 1987 (supplt I), 91-96

72 LIEBER C.S. *Effect of chronic alcohol consumption in the metabolism of ethanol.* In: GOEDDE H.W., AGARWAL D. *Genetics and alcoholism.* Proceedings of the international Titisee Conference Hambourg 28-30 septembre 1986. Progress in Clinical and Biological Research, 1987, *241*, 161-172, LISS AR New York.

73 LIN C.C., POTTER J.J., MEZEY E. *Erythrocyte aldehyde dehydrogenase activity in alcoholism* Alcohol. Clin. Exp. Res, 1984, *8*,(6), 539-541

74 LITTREL J. *The Swedish studies of the adopted children of alcoholics.* J. Stud. on Alcohol, 1988, *49*, (6), 491-499.

75 MAC NEILL HORTON A., FISCELLA R.A., O'CONNOR K. et al. *Revised criteria for detecting alcoholic patients with attention deficit disorder, residual type.* J. Nerv. Ment. Dis. 1987, *175*, 371-372

76 MAJOR L.F., MURPHY D.L. *Platelet and plasma amine oxidase activity in alcoholic individual.* Brit J. Psychiatry, 1978, *132*, 548-554.

77 MANDEL J.L. *Génétique et alcolisme*, pp. 33-35. In: *Données récentes sur l'Alcolisme*, Symposium du 27/11/87, Paris, Goureau Edit, Château du Loir, France, 1989

78 MATUSHIMA Y. *Chromosal aberrations in the lymphocytes of alcoholics* Neuropsychology, 1987, *17*, 24-29

79 MELCHIOR C.L., MYERS R.D. *Genetic difference in ethanol drinking of the rat following injection of 6-OHDA 5,6 DHT or 5,7 DHT into the cerebral ventricles.* Pharmacol. Biochem Behav., 1976, *5*, 63-72

80 MELCHIOR C.L, MYERS R.D. *Preference for alcohol evoked by tetra hydropapaveroline (THP) chronically infused in the cerebral ventricle of the rat.* Pharmacol Biochem. Behav., 1977, *7*, 19-35.

81 MILLS P.R., MAC SWEEN R.N.M., DICK H.M., HISOLP W.S. *Histocompatibility antigens in patiens with alcoholic liver disease in Scotland and Northeastern England: failure to show an association.* GUT, 1988, *29*, 146-148.

82 MOSS H.B., GUTHRIE S, LINNOILA M. *Enhanced thyrotropin response to thyrotropin releasing hormone in boys at risk for develoment of alcoholism.* Arch. Gen Psychiatry, 1986, *43*, 1137-1442.

83 MOTULSKY A.G. *Genetic and environment in alcoholism* In GOEDDE H.W., ARGAWAL D.P *Genetics in alcoholism. Proceedings of the International Titisee Conference* Hambourg, 28-30 se-

ptembre 1986. Progr. Cl. Biol. Res., 1987, *241*, 327-329, LISS AR New York.

84. MUELLER G.C., FLEMING M.F., LE MAHIEU M.A. et al. *Synthesis of phosphatidylethanol a potential marker for adult males at risk for alcoholism.* Proc. Natl. Acad. Sci. U.S.A., 1988, *85*, 9778-9782.

85. MULLAN M. *Alcoholism and the « New Genetics ».* Brit. J. Addict., 1989, *84*, (12), 1433-1440.

86 MYERS R.D., OBLINGER M.M. *Alcohol drinking in the rat induced by acute intracerebral infusion of two tetrahydroisoquinolines and a β carboline.* Drug and Alcohol Dependance, 1977, *2*, 469-483.

87 MYERS R.D., MC CALEB M.L., RUWE D.W. *Alcohol drinking induced in the monkey by tetra hydropapaveroline (T.H P.) infused into the cerebral ventricle.* Pharmacol. Biochem. Behavior, 1982, *16*, 995-1000.

88. MYERS R.D. *Isoquinolines beta-carbolines and alcohol drinking Involvement of opioid and dopaminergic mechanisms.* Experientia, 1989, *45*, 436-443.

89 NORDMANN R., RIBIERE C., ROUACH H. *Alcol et radicaux libres, données actuelles.* Médecine Science, 1988, *4*, (6), 336-345.

90. NORDMO S.H. *Blood groups in schizophrenia alcoholism and mental deficiency.* Am. J. Psychiatry, 1959, *116*, 460-461

91. NORDSTRÖM G., BERGLUND M. *Type 1 and type 2 alcoholics (Cloninger, Bohman) have different patterns of successful long term adjustement* Br. J. Addiction, 1987, *82*, 761-769.

92. O'CONNORS S., HESSELBROCH V., TASMAN A. *Correlates of increased risk for alcoholism in young men* Prog. Neuro-Psychopharmacol. Biol Psychiat., 1986, *10*, 211-218.

93. ORELAND L., VON KNORRING L., VON KNORRING A.L., BOHMAN M. *Studies on the connexion between alcoholism and low platelet monoamine oxidase activity.* Progr. Alc Resch., 1985, *1*, 83-117.

94. PARKER D.A., HARFORD T.C. *Alcohol related problems of childrens of heavy drinking parents.* J. Stud on Alcohol, 1987, *48*, (3), 265-268.

95 PARTANEN J., BRUUN K., MARKKANEN I. *Inheritance of drinking behavior - a study on intelligence personality and use of alcohol of adults twins.* In: *Emergency concepts of alcohol dependance.* Pattison E.M., Sobelli M.B., Sobelli L.C., Springer New York 1977 [citato da GOODWIN (51)].

96. PEELE S. *The Implications and limitations of genetic models of alcoholism and other addictions.* J. Stud. on Alcohol, 1986, *47*, (1), 63-73

97. PENICK E.C., POWELL B.J., BINGHAM S.F. et al. *A comparative study of familial alcoholism.* J. Stud. on Alcohol, 1987, *48*, (2), 136-146.

98 PERRIND D., BIGNON J.D., BEAUJARD E. *Groupe HLA-Dr chez les malades atteints de cirrhose alcolique.* Gastroenterol. Clin. Biol., 1984, *8*, 292-293.

99. PISPA J.P., HUTTUNEN M.O., SARVIHARJU M., YLIKAHRI R. *Enzymes of catecholamine metabolism in the brains of rat strains differing in their preference for a tolerance of ethanol.* Alcohol Alcoholism, 1986, *21*, (2), 181-184.

100. POLICH J., BLOOM F.E. *P 300 from normals and adult children of alcoholics.* Alcohol, 1987, *4*, 301-305

101. POLLOCK V.E., VOLAVKA J., MEDNICK S.A. *The E.E.G. after alcohol administration in men at risk for alcoholism.* Arch Gen. Psychiatry, 1983, *40*, 857-861.

102. PROPPING P., FRIEDL W., ULHAAS S., KAUFMANN A. *Genetic influences on C.N.S. diseases secondary to alcoholism.* In: GOEDDE W.R., AGARWALD D.P. *Genetics and alcoholism*, Proceedings of the International Titisee Conference Hambourg, 28-30 sept. 1986 Progress in Clinical and Biological Research, 1987, *241*, 97-105, LISS AR New York

103 RADOUCO-THOMAS S., GARCIN F., MARQUIS P.A. et al. *Biologie de l'alcolisme. Aspects nosologiques thérapeutiques et étiopathogéniques*, pp. 115-144. In MENDLEWICZ J. *Le Manuel de Psychiatrie Biologique* Masson, Edit. Paris, 1987.

104 REID N.C R.W., BRUNT P.W., BIAS W.B. et al. *Genetic characteristics and cirrhosis: a controlled study of 200 patients* Br. Med. Journal, 1968, *2*, 463-465.

105. RITCHIE T., KIM H.S., COLE R. et al *Alcohol-induced alterations in phosphoinositide hydrolysis in astrocytes* Alcohol, 1988, *5*, 183-187

106. ROUNSAVILLE B.J., SPITZER R.L., WILLIAMS J.B.W. *Proposed changes in DSM III substance use disorders Description and rationale.* Am. J. Psychiatry, 1986, *143*, (4), 463-468

107. SAITO T. *Ethanol's effect on receptor adenyl-cyclase system* Alcohol Alcohol, 1988, *23*, A 12.

108 SANTISEBAM I., POVEY S., WEST L.F. et al. *Chromosome assignement biochemical and immunological studies on a human aldehyde dehydrogenase ALDH 3.* Ann. Hum. Genet, 1985, *49*, 87-100.

109 SCHELLENBERG F., WEILL J. *La desialotransferrine. Un nouveau concept dans le dépistage et le suivi de la maladie alcolique.* Bulletin de la Société Française d'Alcologie, 1986, *8*, (4), 42-46.

110. SCHUCKIT M.A., GOODWIN D.A., WINOKUR G. *A study of alcoholism in half siblings.* Am. J. Psychiatry, 1972, *128*, 1132-1136.

111 SCHUCKIT M.A., DUBY J. *Alcohol-related flushing and the risk for alcoholism in sons of alcoholics.* J. Clin. Psychiatry, 1982, *43*, 415-418

112. SCHUCKIT M.A. *Subjective responses to alcohol in sons of alcoholics and control subjects.* Arch. Gen Psychiatry., 1984, *41*, 879-884

113. SCHUCKIT M.A *Ethanol - induced changes in body sway in men at high alcoholism risk.* Arch. Gen. Psychiatry., 1985, *42*, 375-379.

114. SCHUCKIT M.A. *Sujets à haut (et futur) risque d'alcolisme.* Bulletin du Haut Comité d'Etude et d'Information sur l'Alcolisme, 1985, (2), 165-176.

115. SCHUCKIT M.A. *Génétique et risque alcolique.* J.A.M.A. (édition en français), 1986, *11*, 623-631.

116. SCHUCKIT M.A., GOLD E., RISCH C. *Serum prolactin levels in sons of alcoholics and control subjects.* Am J Psychiatry, 1987, *144*, 854-859.

117 SCHUCKIT M.A., GOLD E., RISCH C. *Plasma cortisol levels folloving ethanol in sons of alcoholics and controls.* Arch. Gen Psychiatry, 1987, *44*, 942-945.

118 SCHUCKIT M.A., SWEENEY S., HUEY I. *Hyperactivity and the risk for alcoholism.* J. Clin. Psychiatry, 1987, *48*, 275-277

119. SCHUCKIT M.A. *Progress in the search for genetic markers of an alcoholism risk.* Progr. Alcol. Res., vol. 2, 1-14, V.S.P. 7 Utrecht Netherland, 1990.

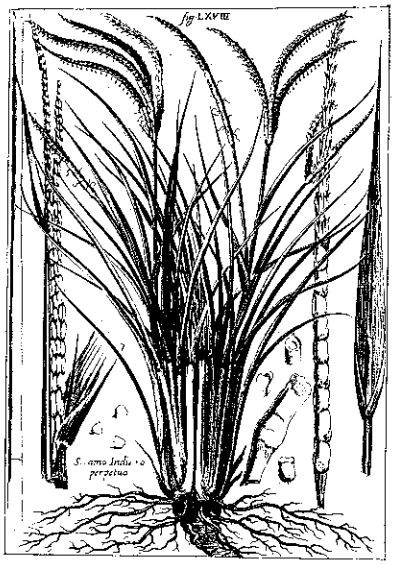
120. SHULSINGER F., KNOP J., GOODWIN D.W. *A prospective study of young men at high risk for alcoholism. Social and psychological characteristics.* Arch Gen. Psychiatry, 1986, *43*, 755-760

121 SHIGETA Y., ISHII H., TAGAKI S. et al *HLA antigens as immunogenetic markers of alcoholism and alcoholic liver disease.* Pharmacol. Biochem. Behav, 1980, *13*, (suppl 1), 89-94.

122. SJÖQUIST B., PERDAHL E., WINBLAND B. *The effect of alcoholism on salsolinol and biogenic amines in human brain* Drug and Alcohol Dependance, 1983, *12*, 15-23.

123. SMITH M. *Genetics of human alcohol and aldehyde dehydrogenase.* Adv Hum. Genet., 1986, *15*, 249-290.

124 SMITH M. *Molecular genetic studies on alcohol and aldehyde dehydrogenase: individual variation gene mapping and*



analysis of regulation. Biochem. Society Transactions, 1988, *16*, 227-230.

125 SONG B.J., GELBOIN H.V., PARKS S.S. et al. *Complementary D N A. and protein sequences of ethanol-inductible rat and human cytochrome P-450s.* J. Biol Chem., 1986, *261*, 1689-1697.

126 SOURNIA J.Ch. *Histoire de l'Alcolisme*, pp 133-138. Flammarion, Paris 1986

127 SPALT L. *Alcoholism. Evidence of a X-linked recessive genetic characteristic.* J.A.M.A. 1979, *241*, (23), 2543-2544.

128 STAMATOYANNOPOULOS G., CHEN S.H., FUKUI M. *Liver alcohol dehydrogenase in Japanese: High population frequency of atypical form and its possible role in alcohol sensivity.* Am. J. Hum. Genet., 1975, *27*, 789-796

129 SUDDENDORF R.F. *Research on alcohol metabolism among Asians and its implications for understanding causes of alcoholism.* Public Healt Rep., 1989, *104*, 615-620

130 TABAKOFF B., HOFFMAN P.L. *Genetics and biological markers of risk for alcoholism.* Public Healt Rep., 1988, *103*, (6), 690-698

131 TARTER R.E., HEGEDUS A.M., GOLDSTEIN G. et al. *Adolescent sons of alcoholics: Neuropsychological and personality characteristics.* Alcoholism Clin Exp Res., 1984, *8*, (2), 216-222

132 TARTER R.E., JACOB T., HILL S. et al *Perceptual field dependency: predisponding trait or consequence of alcoholism.* J. Stud. on Alcohol, 1986, *47*, 498-499.

133 TARTER R.E., ARRIA A.M., MOSS H. et al. *D.S.M. III Criteria for alcohol abuse: association with alcohol consumption behavior.* Alcoholism Clin. Exp Res., 1987, *11*, (6), 541-543

134 THOMAS M., HALSALL S., PETERS T.J. *Role of hepatic acetaldehyde dehydrogenase in alcoholism. Demonstration of persistent reduction of cytosolic activity in abstaining patients* Lancet, 1982, *2*, 1057-1059.

135 THULINE M.C. *Colour blindness and alcoholism.* Lancet, 1967, *1*, 274-275.

136 TOPEL H. *Beta-endorphin genetics in the etiology of alcoholism.* Alcohol, 1988, *5*, (2), 159-165.

137 VAILLANT G.E., MILOFSKY E.S. *The etiology of alcoholism. A prospective viewpoint.* Am. Psycol., 1982, *37*, 494-503.

138 VASANTKUMAR L.T., WILSON A.F., WINOKUR G. et al. *Possible linkage between alcoholism and esterase D.* J. Stud. on Alcohol, 1988, *49*, (5), 472-476.

139 WILSON J.S., GOSSAT D., TAIT A. et al *Evidence for an inherited predisposition to alcoholic pancreatitis. A controlled HLA typing study* Dig. Dis. Sci., 1984, *29*, 727-730.

140 WINOKUR R. *X-borne recessive gene in alcoholism.* Lancet, 1967, *2*, 466

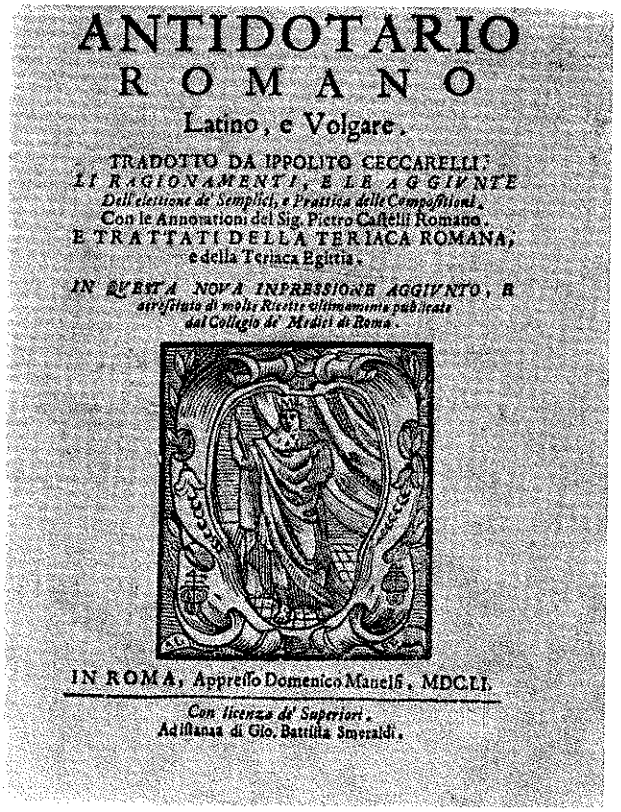
141 WINOKUR G., REICH T., RIMMER J., PITS F.N. *Alcoholism III - Diagnosis and familial psychiatric illness in 259 alcoholic probands.* Arch. Gen. Psychiatry, 1970, *23*, 104-111.

142 WYATT R.J., MURPHY D.L. *Low platelet monamine oxidase activity and schizophrenia.* Schizophren. Bull., 1976, *2*, (1), 77-89

143 XU Y., CARR L.G., BOSRON W.F. et al *Genotyping of human alcohol dehydrogenase at the ADH2 et ADH3 loci following D.N.A. sequence amplification.* Genomics, 1988, *2*, 209-214.

144 YOSHIDA A., DAVE V., WARD R.J., PETERS T.J. *Cytosolic aldehyde dehydrogenase (ALDH 1) variants found in alcohol flusher* Ann. Hum. Genet., 1989, *53*, 1-7

145 ZARSKI J.P., AUGEREAU C., NALPAS P. et al. *Polymorphism des gènes du collagène chez l'alcolique chronique avec ou sans cirrhose. Existe-t-il une prédisposition génétique à développer une fibrose.* Cahiers de l'IREB, 1989, (9), 241-245.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ROMANO
Latino, e Volgare.
TRADOTTO DA IPPOLITO CECCARELLI.
LI RAGIONAMENTI, E LE AGGIVNTE
Dell'elettione de' Semplici, e Pratica delle Compositioni,
Con le Annotationi del Sig. Pietro Caffelli Romano.
E TRATTATI DELLA TERIACA ROMANA,
e della Teriaca Egittia.
IN QVESTA NOVA IMPRESSIONE AGGIVNTO, E
accresciuto di molte Ricette ultimamente pubblicate
dal Collegio de' Medici di Roma.
IN ROMA, Appresso Domenico Manelfi, MDCLI.
Con licenza de' Superiori.
Ad istanza di Gio. Battista Smeraldi.

JEROME LEJEUNE

Reflections on the Alcohol-Fetal Syndrome

The discovery of the dangers of alcohol goes back to ancient times, fearful dangers for fathers, as demonstrated by Noah's early experience, and for their descendants: " And their children's teeth were set on edge " (*Jr* 31:29).

Was Aristotle already familiar with the alcohol-fetal syndrome when he observed, " Scatterbrained or mad or drunken women often bring into the world children resembling them languid and sad "? In any case, prevention had been revealed to humanity long before, " You are going to conceive and will give birth to a son From now on, drink no wine or fermented liquor . . " (*Jg* 13:7). In spite of such observations and warnings going back thousands of years, it was necessary to wait until 1958 for the alcohol-fetal syndrome to become a nosographic entity.

As Streissguth et al. note in their excellent study of 1980, however, observations had not been lacking (3). A report to the House of Commons in 1884 had thus remarked that " the children of alcoholic mothers have a flawed appearance, of hunger and suffering, " and Sullivan noted (1899) that " infant and postpartum mortality is twice as high among children of alcoholic mothers as opposed to other inmates at the Liverpool prison. " But we must acknowledge that Lemoine, Harousseau, Borteyru, and Menguet had the indisputable merit of discovering the syndrome not only in the newborn and children, but also in the adolescent and young adult, followed up over a number of years

Thirty years later, their initial description does not display the slightest imperfection.

1. Clinical Study

(Text by Lemoine et al., 1958)

Four points have particularly surprised us in these children:

— a very peculiar appearance;

— considerable height/weight hypertrophy;

— very frequent malformations;

— psychomotor disturbances.

A) Facial Appearance

This is the first element which attracted our attention. These children all look alike (to the point that it often happens that we assert a mother's alcoholism on just seeing a child, and then social inquiry invariably confirms the facts for us).

1. The profile, above all, is characteristic:

— a low, convex forehead, to contrast to flattened eyebrows;

— sunken nasal base, as if forming a saddle, short, trumpet-shaped nose;

— shrunken upper lip creating a convex profile (a particularly constant sign);

— practically chinless;

— poorly oriented, deformed ears, with a horizontal upper edge.

2. Frontally,

— narrow forehead;

— elongated mouth;

— prominent ears.

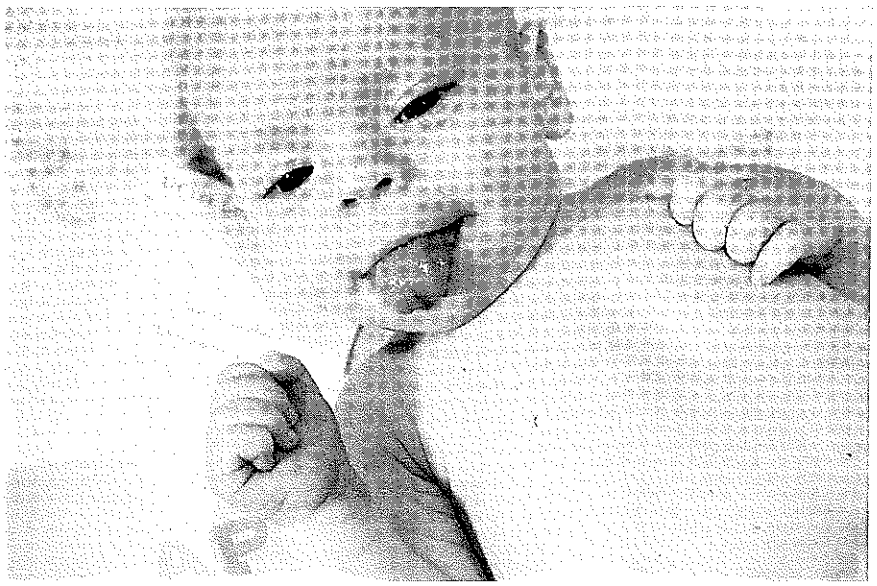


Fig. 1 - Hypothyrodism

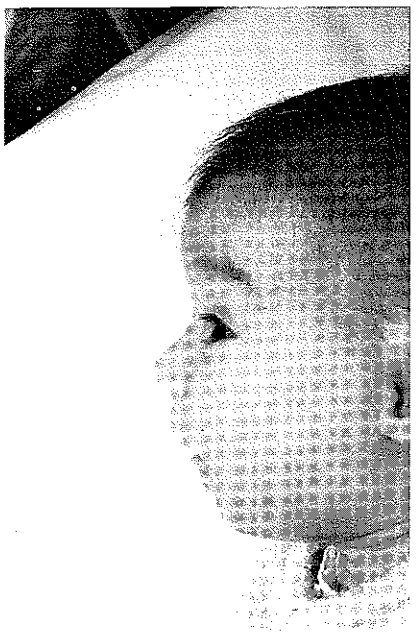


Fig. 2 - Alcohol-Fetal Syndrome

This facial appearance is quite typical in the first two years. At a later age, the traits are modified, but the child conserves a small, wrinkled head, with reduced intelligence and persistence of the recessive chin, sunken nasal base and trumpet-shaped nose, and prominent ears. To describe the syndrome completely we would have to repeat the entire publication by Lemoine et al., with the height/weight atrophy, associated especially cardiac malformations, and psychomotor anomalies. These very hyperactive children show retarded development: "The older ones are restless, turbulent, and quarrelsome, but unstable and incapable of continued activity. Their IQ is about 70." Numerous later publications have merely completely that dysmorphic and neuropsychiatric picture, confirming its reality in all the populations and races studied. Rostand et al. thus observe (1990) in France a correlation between the seriousness of the dysmorphic syndromes and the amount of alcohol consumed by the mother during pregnancy, whereas Walpole et al. (1990) reach the conclusion, in Australia, of the innocuousness of moderate amounts; the two surveys also point out a correlation with smoking.

In animals, all experiences show that alcoholism in the pregnant female, even in moderate amounts or in the form of weekly inebriation in the macaque (Clarren 1990) entails risks for the fetus.

The important study by Streissguth et al. (1991) confirms the observations by Lemoine et al.

The retarded development, the IQ of 70, the persistent instability, slowness in learning, deficiencies in attention and self-control, and a difficulty in taking into account the reactions of others sometimes suggest incipient autism or a moderate regressive psychosis. And the recent study by Vittu, Delcrois, Feldman-Desrousseaux, and Bourlet (1991) further outlines the clinical picture.

The pathology itself remains to be understood. The toxicity of alcohol does not, indeed, require demonstration, but the relations which may exist between this very simple molecule and the symptomatic triad comprehending

— facial dysmorphy;

— hypertrophy and associated malformations;

— persistent anomalies in intelligence and behavior.

2. Comparative Pathogenesis

To summarize a great amount of experimental data, Seyoum and Persaud (1991) observe the protective action of zinc (Favier et al., 1987) and methionine.

The alcohol dehydrogenase which transforms ethanol into acetaldehyde, is an enzyme with zinc, which regulates blood levels of alcohol (Chernoff, 1980).

Blood zinc is found in smaller amounts in the children affected (Assidi and Ziai, 1985) and in their mothers (Flynn et al., 1981).

In mice (Miller et al., 1983) and rats (Ruth and Goldsmith, 1981) a lack of zinc increases alcohol damage, whereas its presence protects children (Tanaka et al., 1982) (Keppen et al., 1985)

As for methionine, we know a deficiency is typical of chronic alcoholism, but when administered to alcoholic rats the level of aldehyde in circulation diminishes (Tabakoff et al., 1989).

As acetaldehyde (Barak and Beckenhauer, 1988) inhibits methioninesynthase by 74% and forms adducts with N-5 methyl-tetrahydrofolate (which permits remethylation of homocysteine in methionine through B12), it is necessary to see a possible relation between acetaldehyde and the metabolism of monocarbons. But, before discussing possible biochemical mechanisms, an anatomical-chemical confrontation with proximate dysmorphic syndromes.

In addition to mental deficiency with microcephaly, alcoholic intoxication of the fetus effectively entails in men (and also in mice, as Sulik et al., 1981, have shown) a typical facial dysmorphy: narrow palpebral fissures, a short nose with upturned nasal orifices, lack of support for the philtrum of the upper lip and microretrognathism.

Now, we are familiar with several mental debilities involving quite proximate dysmorphies:

— trisomy 21;

— trisomy 12p;

— congenital hypothyroid;

— intoxication of the fetus through maternal phenylketonuria.

The dysmorphies are similar, and associated (especially cardiac) malformations are also found, with comparable frequency.

These four syndromes are, then,

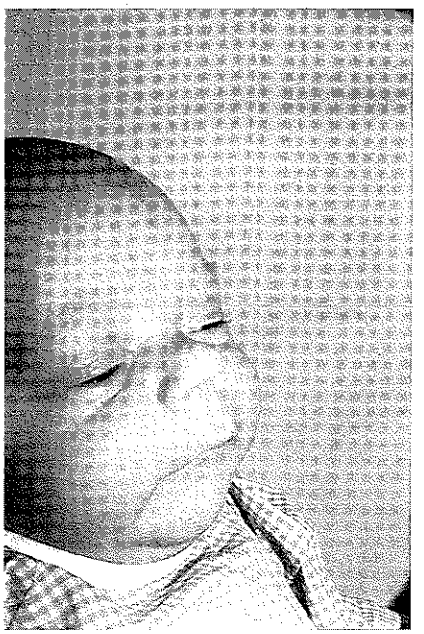


Fig. 3 - Alcohol-Fetal Syndrome (courtesy of Prof. Vittu)

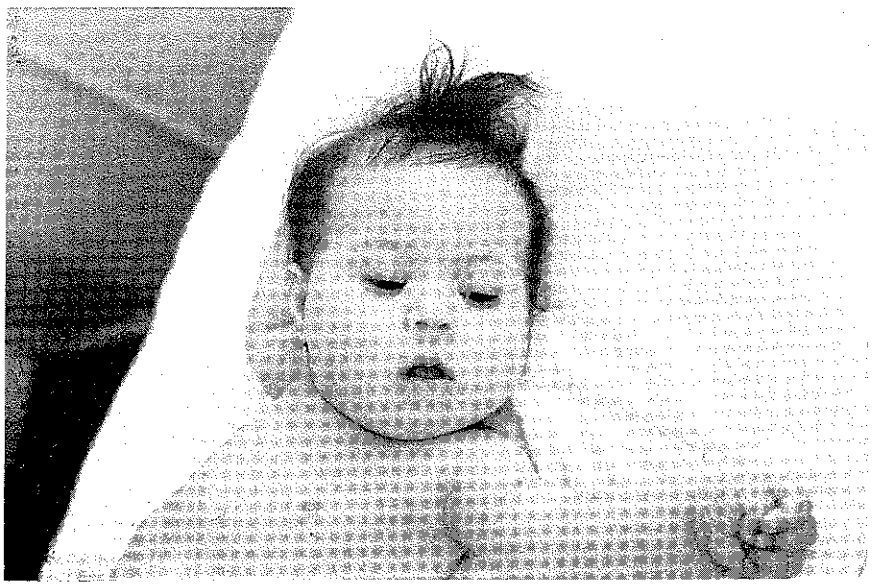


Fig. 4 - Maternal phenylketonuria

directly related to the metabolism of monocarbons.

In trisomy 21 hypersensitivity to methotrexate (Peeters et al , 1985; Lejeune et al., 1986) is accompanied by a relative deficit of serine with an excess of cysteine (Lejeune et al., personal communication), from which there arises a serious imbalance in metabolism of monocarbons.

For its part, hypothyroidism (cf. Lejeune, 1990) lowers the arrival of formyl radicals through formylsynthase and accelerates their elimination through formyl-dehydrogenase, giving rise to a notable deficit of oxidized monocarbons.

On chromosome 12 the gene is located for one of the major enzymes of monocarbons, serine hydroxymethyl transferase (at 12q13), and the short arm of 12 contains several genes which regulate glycolysis.

In short, the dysmorphic syndrome of children born to phenylketonuric mothers (therefore, a priori normal heterozygotes) is practically identical to the alcohol-fetal syndrome, as Lipson et al. (1981) observed. Now, one of the metabolites of phenylanine would perhaps be able to block formyl-transferase; the most plausible candidate is not phenyl-pyruvate, but, after decarboxylation, phenylacetaldehyde proximate to phenylacetate.

Heuristic Hypothesis

To account for these phenotype convergences, the simplest hypothesis would be that the four syndromes apparently quite heterogeneous bring with them a special metabolic disturbance

For instance, ethanol, CH3CH2OH, greatly resembles radical hydroxymethyl-CHOH, transferred by serine hydroxymethyltransferase. An inhibition through competition would be quite plausible all the more so since methyl alcohol CH3OH (which could adapt even more precisely to the characteristic locus of radical CHOH) is much more toxic than ethanol.

It so happens that serine-hydroxymethyltransferase can also combine acetaldehyde and glycine to synthesize treonine, an indispensable amino acid whose metabolism might be disturbed in certain psychoses (Lejeune et al , personal communication).

The catabolism of treonine leads to methylglyoxal, an inferior homologue of dioxavalerate (or DOVA in Fig. 1), one of the leading donors of radical formyl in formylsynthase. If methylglyoxal were also a donor of monocarbons (which remains to be demonstrated), acetaldehyde would result to be transformed into acetate through aldehyde-dehydrogenase.

Finally, if alcohol partially inhibits serine-hydroxymethyltransferase (inebriation) and acetaldehyde inhibits formyltransferase (neurological toxicity), then the " family air " observed among the dysmorphies we have just compared would proceed from a common deficit of oxidized monocarbons: by blocking of formyltransferase through acetaldehyde (alcohol-fetal syndrome); phenylacetal-dehyde (child of a phenylketonuric mother); deregulation of formylsynthase and formyl-dehydrogenase (hypothyroidism); or metabolic deviation resulting from another effect of gene dosage (trisomy 21, trisomy 12p).



Fig. 5 - Trisomy 21

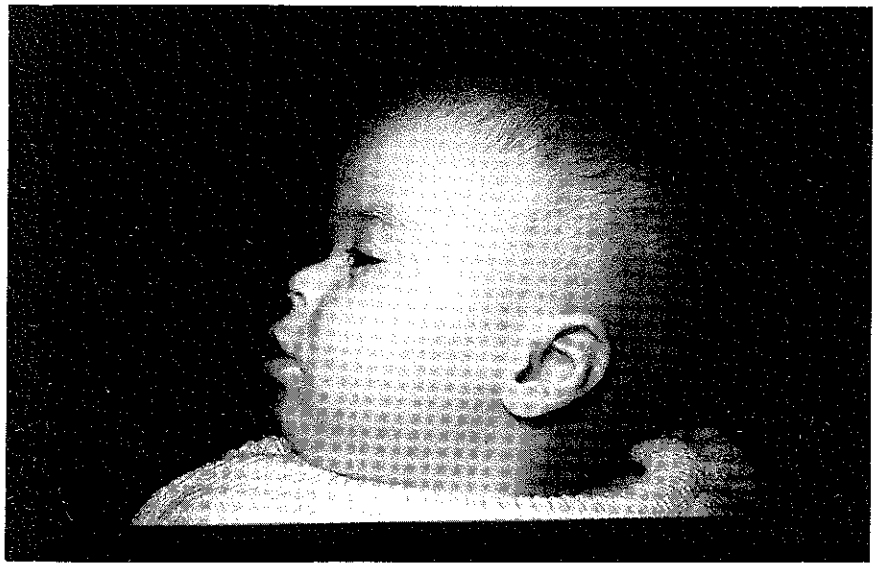


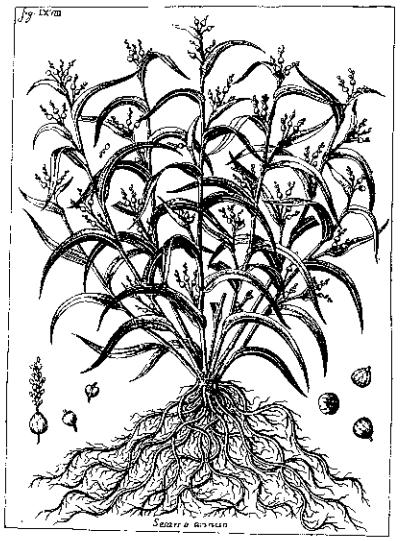
Fig 6 - Trisomy 12 p

We would still have to explain why genetically unharmed children who are intoxicated in the uterus by derivatives of alcohol and phenylanine maintain deficits in physical and motor development, even for a long time after the toxin is suppressed.

This fact is experimentally demonstrated in the macaque (Clarren, 1991) and the alcoholic rat in the uterus (afterwards subjected to a normal diet) as an adult suffers a persistent deficit in hisozymes of alcohol dehydrogenase (Paredes, 1990). We must necessarily assume, then, an epigenetic mechanism which would modify, on an enduring basis, gene regulation of enzymes, whose balance has been modified by alcoholism. A possible methylation (or demethylation) of certain sequences regulating the genome might explain this apparent "acquired" irreversibility.

In terms of avenues of approach, it remains for us to consider (cf. Lejeune, 1991, for discussion) whether restoring a balance (by administration of precursors, transporters, or final products of monocarbon metabolism) would prove beneficial or even allow us to "reprogram" sequences regulated abnormally.

If we are well aware that these reflections are purely heuristic and that experimental research is indispensable to confirm their validity. In any event, it has struck us as appropriate to submit them to the specialists in attendance, since the need to help such unjustly punished children is so great.



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References

ASSADI F. K., ZIAI M. *Zinc deficiency in infants with foetal alcool syndrome* Pediatric-Research 1985, 19, 167

BARAK A.J., BECKENHAUER H.S. *The influence of ethanol on hepatic transmethylation* Alcohol and Alcolism 1988, 23, 73

CHERNOFF G.F. The fetal alcohol syndrome in mice: maternal variables. Teratology 1980, 22, 71-75

CLARREN S.K. *Fetal alcohol effects in a non-human primate model. Dose-response for behavioral and structural brain alteration. in. Alcohol and fetal development* Oct. 4-51990 Valencia Spain pp 23-24

FAVIER M., FAVIER A., ROBERT E. et GUIGNIER M. *La carence en zinc chez la mère peut-être responsable de l'apparition de spina bifida aperta chez le foetus* Rev. Int. Pediat. 1987, 174, 34— 40

FLYNN A., MARTIER S.S., SOKOL R.J., MILLER S.I., GOLDEN N.L., DELVILLANO B.C. *Zinc status of pregnant alcoolic women: a determinant of fetal outcome* Lancet 1981, 572-574

JONES K.L., SMITH D.W., ULLELAND C.N. *Pattern of malformations in offspring of chronic alcoholic women.* Lancet i, 1973, 1267-1271

KEPPEN L.D., PYSHER T., RENNERT O.M. *Zinc deficiency act as a co-teratogen with alcool in fetal alcohol syndrome* Pediatr. Res. 1985, 19, 944-947

LEJEUNE J. *Pathogenesis of mental deficiency in trisomic 21* AM J. Med Genet. 1990, 37, 20-30

LEJEUNE J. *Pathogénie de la débilité de l'intelligence dans la trisomie 21* Ann. Génét. 1991, 34, 55-64

LEJEUNE J., RETHORE M.O., de BLOIS M.C., MAUNOURY-BUROLLA C., MIR M., NICOLLE L., BOROWY F., BORGHI E., RECAN D. *Metabolisme des monocarbones et trisomie 21 sensibilité au méthotrexate* An. Génét. 1986, 29, 16-19

LEMOINE P., HARROUSSEAU H., BORTEYRU J. et MENUET J. *Les enfants de parents alcooliques Anomalies observées.* Ouest Médical 1968, 25. 477

LIPSON A.H., YU J.S., O'HALLORAN M.T. et WILLIAMS R. *Alcohol and phenylketonuria* Lancet i. 1981, 717-718

MILLER S.J., DEL VILLANO B.C. FLYNN A., KRUMHANSL M. *Interaction of alcohol and zinc in fetal sysmorphogenesis.* Phamacol Biochem Behav. 1983, 18, 311-315

PARES X. *Effect of pre and post natal ethanol intake in the development of alcohol dehydrogenase isoenzymes.* in: *Alcohol and fetal development* oct. 4-51990 Valencia Spain pp 27-28

PEETERS M., POON A., ZIFLRSKY A. et OLIVE D. *Down's syndrome and leukemia: unusual clinical presentation, unexpected methotrexate sensitvity*. Eur J Pediatr. 1985, 144, 115

RUTH R.E. et GOLDSMITH S.K. *Interaction between zinc deprivation and acute ethanol intoxication during pregnancy in rats* J Nutr 1981, 111, 2034-2038

SEYOUM G.G. et PERSAUD T.V.N. *Can Methionine and Zinc prevent the embryopathic effects of Alcool*. Medical Hypotheses 1991, 34,153-156

STEISSGUTH A.P., LANDESMAN-DWYER S., MARTIN J.C. et SMITH D.W. *Teratogenic effects of alcohol in humans and laboratory animals*. Science 1980, 209, 353-361

STREISSGUTH A.P., AASE J.M., CLARREN S.K., RANDELS S.P., LADUE R.A., SMITH D.F. *Fetal alcohol syndrome in adolescents and adults* JAMA 1991, 265, 1961-1967

SULIK K.K., JOHNSTON M.C. et WEBB M.A. *Fetal alcohol syndrome: embryogenesis in a mouse model* Science 1981, 214, 936-938

TABAKOFF B., ERIKSSON C.J.P., VON WARTBURG J.P. *Methionine lowers circulating levels of acetaldehyde after ethanol ingestion. Alcoholism*: Clin. Exp. Res. 1989, 13, 164

TANAKA H., NAKAZAWA K., SUZUKI N., ARIMAM. *Prevention possibility for brain dysfunction in rat with fetal alcohol syndrome-leso zinc status and hypoglycemia* Brain Dev. 1982, 4, 429-438

VITTU G. *Le nouveau-né de mère alcoolique* Revue du Pédiatre 1991, 2, 42-44

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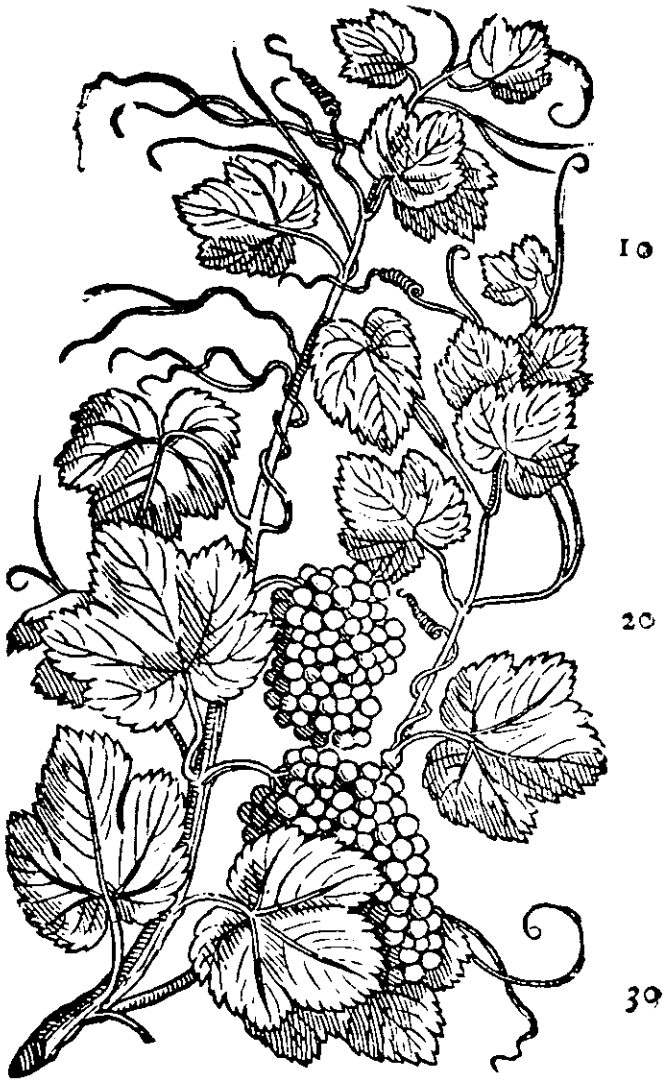

JULIAN MARIAS

Freedom and Lucidity: The Drug Problem

The drug *problem,* as it may be called, is a quite recent phenomenon in Western countries. But in other regions, as in the Far and Middle East, Northern Africa, and among the Indians of the Andes, drug consumption, especially of opium, hashish, and coca, has a long tradition. In Europe and America, the use of drugs was an exception Some individuals, at most small groups or short-lived fashions among minorities of few countries, made use of drugs nothing that can be compared to the present spread among multitudes, which began about 1960

It should be emphazised that abortion started to be socially accepted by that date; before it was infrequent and considered illegal and immoral. *Organized* terrorism emerged about that time, too. This leads to the conclusion that these three important phenomena may have a common and nonspontaneous origin, caused by some converging social forces.

The present situation is characterized by an extraordinary spread of drug consumption in all countries, social classes, and especially among youth. It would be interesting to know if most of the addicted adults of today started with drugs when they were very young, especially in the decade from 1960 to 1970, or if they became addicted after their juvenile phase.

Drugs have a very important function for human life: *diversion*, the momentaneous separation from the burdens of life, the *conversion* to something different which gets a weight off their mind and helps to go on after having relaxed. The reader of a novel, the spectators of a theatre play, a film, or a TV programme suspend their real life for some time and enter an imaginary, perhaps more attractive life; they go on a short holiday, leaving their daily and real life behind. These are the most noble " drugs, " which are less dangerous and definitely more efficient.

Other less imaginative and more physical means have a similar function. The Spanish and Portuguese explorers of the 15th century, leaving for the East or the unknown America, were looking in the first place for spices. Not food, not the tomatoes or potatoes they would find, but the seasonings which gave their name to the Moluccas: pepper, cloves, nutmeg, cinnamon; and also coffee, tea, tobacco. *Superfluous* means, attractive and stimulating, like the old and familiar alcohol.

However, all this did not affect personality, except in excessive doses, which always prove dangerous for anything consumed. When this happened, as for drunkenness, it was considered negative, a paralysis or surrender, a short-lived degeneration. This is the reason why in my opinion alcohol and tobacco should not be assimilated to drugs in the strict sense of the word— drugs which represent a great problem today. This assimilation might conceal the harmful character of the latter, if considered " similar " to things which do not seem so dangerous

Drugs in a strict sense cause *addiction*, which leads to a degeneration of the person. After a certain period or a certain dosis, it is no longer possible to rectify or to draw back, because the person who should do so is *no longer free*. The addict is not able to suspend his drug consumption, to renounce, to overcome the state he has fallen into. In this lies the extraordinary gravity of the situation. The fact that drugs have become a big business has caused the creation of a complex and powerful net work of production, transport, and distribution which is difficult to combat; however, the decisive factor is that drug consumers are *defenceless,* ready to do anything to get the drug, and this, due to addiction, in a *permanent* way.

The decisive question is: *Why do Western people make use of drugs*, if they did so only exceptionally in the past? The Western people, since the Ancient Greeks, had always lived according to the philosophy of *lucidity* and *reason*. They did not accept, save for individual and abnormal situations, what could dim lucidity or reason—to them, it seemed a surrender to foreign powers, which the Occidental considered " impotences, " slavery, decadence, failure. Furthermore, addiction means the loss of *freedom*, which has always been the permanent ideal of Western men.

This has been for more than 3,000 years the character of the civilization which arose in Greece, spread to Europe, and was brought by the Europeans to America and other continents. The generalized drug consumption in these countries, its frequent acceptance, the fact that it is considered almost " normal, " represents a deep change in the fundamental ideas on life of this civilization. Its most important cause is the *loss of reason*.

Reason and lucidity are of no interest, there is no wish to get to the bottom of something, to understand, to know what to pursue.

Consequently, it is not important *to be right* or not. And one can take the second step: *not wish to be right*. This is the deepest explanation for numerous phenomena, especially political ones, of our times. It explains many forms of behaviour which originally have nothing to do with drugs, like political totalitarism, violence, fanaticism, all those forms of living together which do not try to be right and often don't want to be right, either.

It is often said (and it is true) that the sometimes sanguinary violence of present societies is due to drugs. There is no doubt: persons under drug influence often tend towards violent acts; often violence and even crime are committed in order to get money for drugs. But the fact that drugs produce or provoke violence is not the most important aspect. The worst is that both have the same origin: the loss of reason, the giving-up of reason and lucidity, and even the will to destroy them both.

This is in my eyes the core, the ultimate explication for the diffusion of drugs in our world. I say " ultimate " because I do not forget the intermediate causes, which governments, physicians, psychiatrists, teachers, and police are dealing with. And it is necessary that they do so, but I am worried by the fact that the root for all other causes and motivations is overlooked.

Before we go on, another important aspect should be mentioned: the prevailing *juvenile* character of drug consumption. Youth is a transitory age like others. Youth has always been young naturally, sometimes even in a hurry to become adult. But during the last decades, a significant change has taken place: a period of *juvenilism* has begun (a phenomenon which is similar to those of feminism, nationalism, racism); the naturalness and spontaneity of a *condition* is lost, and the condition is deliberately and polemically proclaimed. To be young is a " profession " today. This is strengthened by another (economic) fact: for the first time in history, youth has money, and a special market for the young is growing.

As the collectivity of young people turns into a social force, a kind of " class, " *manipulation* of youth has begun. Adults, perhaps bordering on old age, " define " what youth is and has to be. Youth is associated with certain characteristics, tastes, preferences, tendencies and assessments which cannot easily be put aside since the result would be an exclusion of what is considered juvenile. This has been the decisive factor for the *mechanical* loss of religious faith in many young people since 1960.

The beginning of drug abuse occurrs in this atmosphere of strong social pressures. The key to the problem is to be found here. Since youth is a transitory phase of life, its characteristics are transitory, too. After some years, young people review former behaviour and many drop it totally (remember what happened later on with the promoters of May 1968 and its equivalents). But drugs cause *addiction*, and therefore they cannot be dropped and put aside that easily. Drugs change and modify the organism and, even more, the psyche, in the worst cases they lead to a degeneration of personality. Nobody can easily free himself from drug addiction, because there is " *no one* " there to do so. It is almost irreversible damage; the pressure of drugs does not stop when youth has passed. This gravity explains the enormous spread of drug consumption.



Giving young people an external image, created by adults, which included a disqualification of those who were not young anymore, caused a profound crisis on youth's horizon. Remember the " motto " which circulated 20 or 25 years ago: " Don't trust anybody over thirty. " It is easy to imagine the desperation of a youngster who has the alternative of either not reaching that age or becoming an undesired, poor, repulsive being. This left young people *hopeless*. If one cannot look forward to good, interesting, and attractive things, the result will be tedium, boredom, and lack of projects. One step ahead lies *evasion*, indifference, the person who does not care.

As long as one has lucidity, it does not happen, because the lucid man is always interested in reality. It is exactly here that the cruelest evasion may take place: one might try drugs out of boredom, disillusion, and lack of interests. This is the main reason why so many young people have turned their back on a 2000 year old tradition of rationality, lucidity, and self-possession. Expressions of our language reveal a lot: to be oneself, to be in one's right mind. In Spanish we have the precious expression " *ensimismamiento* " (a kind of introversion). On the other hand, expressions like " to be *beside oneself*, " alienation. Lucidity and self-possession have been the attributes by which man in our world has been defined, understood, and esteemed. The person who is beside himself is a madman who will calm down and return to himself, again be master of himself, see things as they are and not deformed and falsified as before.

But this way of acting is often refused and it is terrible that drugs, by destroying personality, are an obstacle to a review, a recovery and a return to oneself and to rationality.

Unlike other cultures, which have been stagnant, the occidental culture has always meant innovation, creation, variation, and finally freedom. Lucidity and reason against stupor. This is exactly what drugs cause: they are stupefacient,

a word that has the same root as stupidity Drugs cause this terrible phenomenon that threatens all of us, which would be better called "*historical stupidity*."

The drug problem can and must be tackled from various points of view, and all are necessary. But if one wants to get to its *roots*, one must understand why Western men make use of drugs The causes should be modified and overcome. Most of the ideologies born since the middle of the 20th century have been determined by an indifference to rationality and even a certain hostility.

Paradoxically, at a time when philosophy— especially in Spain — had made important stepts towards a better and more profound understanding of reason and its essential connection with human life This essential belonging together must be made known: the fact that human life is only possible by the use of reason, and that reason is life itself in its function of interpreting reality. Since the beginning of this century, in Spanish this has been called *razón vital*.

I think that the intellectual roots of the drug problem should not be forgotten. It is wrong to dwell only on the danger of drugs; to young people this is no deterrent, but rather a stimulus, like the dangerousness of many sports. I believe that it is more efficient and fruitful to teach them that drugs are wrong, a giving up of what is most human, a humilation, an escape, a form of cowardice.

Prof JULIAN MARIAS
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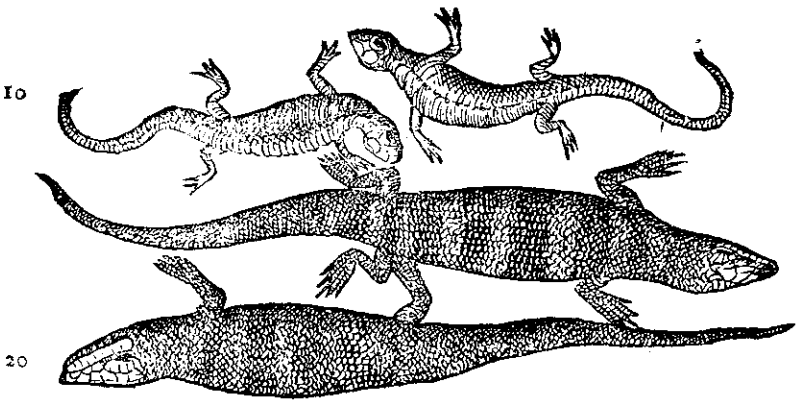
SCINCO.



JEAN-PAUL ROUSSAUX

Hidden Alcoholism

Although it seems quite familiar, the subject I have been asked to deal with at this Conference prompts at least three questions which translate into an inquiry into the three terms of the proposition: " Who is concealing? What is being concealed? From whom is it being concealed? "

We are going to analyze these three terms in succession.

1. What is this alcoholism which it is appropriate to conceal?

2. By whom is alcoholism being concealed?

3. From whom is it being concealed?

We shall seek to respond to these three questions.

1. Definitions of alcoholism have spurred broad debates for about fifty years. At all times definitions have wavered between a psychosocial or cultural pole (e.g., an individual is termed " alcoholic " when the amount of alcohol he ingests surpasses the limits accepted in his culture) and a medical-physiological pole, which determines alcoholism on the basis of notions of dependence, tolerance, and servitude, according to the definition proposed by Jellinek.

More modern and complex definitions, like the one proposed by the American Psychiatric Association in its Diagnostic and Statistical Manual (D.S.M. III-R), combine the cultural and medical dimensions. A simplified version might be stated as follows:

" The alcoholic is a person who makes use of alcohol and suffers serious consequences as a result. "

This minimal, operative definition will be sufficiently broadened if we complete it with the conviction that an individual's alcoholism has a meaning, an aim for the subject himself: recourse to alcohol should always be understood initially as self-medication for an individual's malaise or malady-resorting to alcohol consumption always means increasing pleasure and decreasing displeasure, since the origin is personal (e.g., depression, sorrow), professional (boredom, fatigue), familial (marital discord), or social (stress).



In this way, what is concealed, alcoholism, in itself constitutes an attempt to respond to, to resolve — by way of a blind alley — a basic problem for which the individual has been unable to " imagine " another solution more adequate than alcoholism.

Whoever does not recognize the initially favorable character of alcoholism as adaptation will fail to see the inner need for this step, which comes long before the somatic exigencies involving the avoidance of abstinence and an increase in dosage following upon tolerance. Before referring to the possibility of treating alcoholism, it is fitting to discern therein, the transiently positive aspect for the individual, which in itself explains his adherence to the product (otherwise incomprehensible and meaningless). The alcoholic clings to alcohol as a lame man clings to his cane. The transiently positive aspect of alcoholism also explains the need to conceal it: precisely for this reason it basically involves a stratagem whose unreal aspect, manipulative of his own experience, is always present in the subject's consciousness. It is simply that the individual does not think he possesses any other key to modifying what he feels and does not expose himself to the risk of a change in reality.

2. Our second question is formulated as follows: Who conceals alcoholism? Who is the agent of this dissimulation?

Above all, the drinker, but also the one we all call the " co-alcoholic, " a notion we would like to return to later in detail. Therefore, it is the drinker who conceals his alco-

holism, who hides himself. But, take care: it is not a question of all who drink. Some of them will even claim their right to alcoholism as a proof of freedom, of a capacity for enjoyment, virility.

The drinker who hides himself is the one who supposedly does not drink in a certain social or familial culture. In practical terms, we are essentially dealing with three groups devoted to alcohol: women, adolescents, and certain men.

1. Women, whose regular use of alcoholic beverages is not accepted by Western culture, which condemns their inebriation

This social position has until now protected women from a significant prevalence (i.e., total number of cases) of this pathology. On the contrary, women who turn to alcohol as a solution typically do so for emotional reasons related to the family.

Female alcoholism consititutes for many the very paradigm of hidden alcoholism, without major behavioral disorder outside the family environment, a kind of private alcoholism, all the more prolonged and harmful the more it is hidden.

2. Adolescents

In Western civilizations access to alcoholic beverages frequently comes quite early. Studies of population groups carried out in Belgium have shown an average age of eleven in boys for beginning consumption of beer or an aperitif, more often within the family. In adolescents, beyond the experimental stage, consumption of alcohol presents important analogies to the consumption of illegal drugs: alcohol is drunk primarily in a discontinuous but massive way, accompanied by violent behavior of a delinquent kind and, quite often, with episodes of loss of consciousness.

Just as with heroin addicts, who are more or less the same age, this adolescent alcoholism tends towards "tripping" and may be regarded as an equivalent to drug addiction.

The greatest danger this alcoholism entails regards the state of incapacity in which the young person finds himself as far as taking the necessary steps to go from adolescence to adulthood is concerned: economic independence through professional qualification, beginning a stable affective relationship, and leaving the family home.

For this young person, repetitive alcoholism inhibits the process of autonomy. The young person continues to live in a state of primary dependence upon his own family. The pathological dimension of this condition will continue to be aggravated as the void in autonomy corresponding to his age goes on growing. For this youth, it is quite unpleasant to expect an allowance from his parents at age twenty-five; and for the family it becomes unbearable to maintain a "loafer" who sleeps all day in order to go out at night.

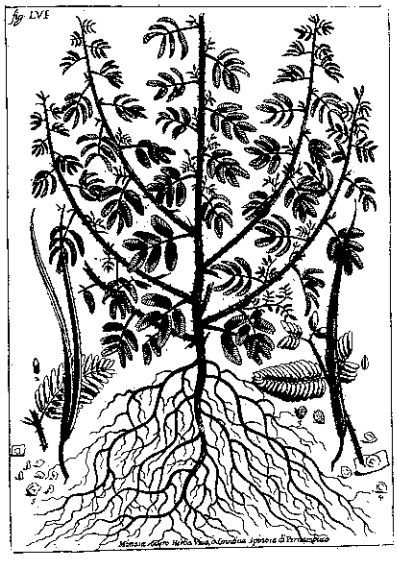
3. Certain men given to drinking who, as a result of religious (Moslems) or social/familial prohibition, must hide their alcoholic state

This is the "ashamed" alcoholic of St. Exupéry ashamed that he cannot rise to the level of his ideals, very often unrealistic. We know that nondrinking families are more affected by alcoholism than families practicing integral consumption of alcoholic beverages.

A special category is developing at present with alcoholism among the elderly, which arises at the start of retirement and abandoning the active habits which required good psychic and physical condition to practice one's profession. This alcoholism fills up time, is practiced mainly at home, and is aggravated when widowhood supervenes.

The other agent of dissimulation, in addition to alcoholism proper, is co-alcoholism. This concept, first developed in the early eighties by Alanon, has sometimes spread improperly, on being elevated to the status of a disease in its own right.

Clinical experience shows us that alcoholism, to reach full development, needs the presence and action of another person alongside the alcoholic whose interventions tend to diminish the negative consequences which, without that factor, would manifest themselves earlier. The co-





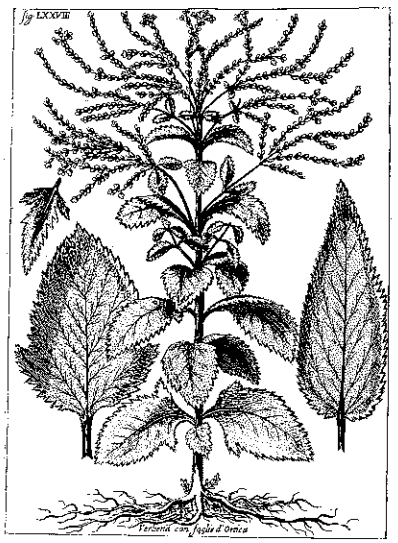
alcoholic permits and fosters almost always involuntarily the development of alcoholism, performing a substitutive function and constructing a protective screen between the drinker and everyday reality.

The co-alcoholic is the one who slips his hand between the alcoholic's head and the wall of reality against which it is about to bump. He is the relative who carries the drunk to his bed, who telephones to justify his absence from work, who places himself behind the wheel after an accident caused by drunken driving. He may also be the department head who closes his eyes to repeated mistakes or the office coworker who resolves and dispatches the matters left by the alcoholic.

The concealment of the alcoholic before the outside world congenially forms part of the way of acting of the co-alcoholic, who, in the hope of stabilizing a situation thrown off balance by the secondary effects of alcohol, systematically hides whatever attacks family equilibrium (Steinglass, 1987).

The more resistant the co-alcoholic is, the longer he will be able to compensate for the negative consequences of the alcoholic's drinking.

Only when the co-alcoholic throws himself off balance can there movement towards a request for treatment, and the alcoholic will face reality. All treatment of a case of alcoholism begins with the co-alcoholic's abandonment of his strategy of dissimulation, with the help of the therapist or physician



4. From whom is alcoholism hidden?

Concealment generally tends towards suppressing the dimension of otherness in attempting to live in an imaginary dimension.

A survey done some time ago by Robins (1977) showed a time sequence in the appearance of the different types of problems found by heavy drinkers. This time sequence agreed with the absolute frequency of problems (their prevalence in the alcoholic population). We shall begin with the problems presenting themselves to all alcoholics and their order of appearance, which thus constitute decreasing indicators.

1. The personal problem: " I drink too much! " is a first early indicator.

2. The problem with a spouse : " You drink too much! " is a second early indicator.

3. The problem with the professional environment: " He drinks too much! " is a third indicator.

4. The problem with the law: driving problem in an alcoholic or drunken state

5. Encounter with the physician : first hospitalization for a somatic problem or alcoholism this appears at a relatively late stage.

6. Psychiatric problems: this indicator, as with delirium tremens, requires an evolution of alcoholism and is thus the rarest.

We would like to repeat this sequence to see from whom the problem is concealed, in the aforementioned order, before the later abandonment of the lines of defense.

1. In the first moment, in abandoning its transcendence, the alcoholic conceals from himself his abuse of alcohol Very soon, before a third party, he may acknowledge the existence of the problem, though he feels totally unable to proceed otherwise and confess it to his environment.

2. The alcoholic conceals it from his surroundings : it is an equally early and transitory phase. Later development requires the intervention in shared secrecy of the co-alcoholic.

Let us observe that a refusal to hide oneself at this stage opens up possibilities of searching for other real solutions to the real problem posed for the individual and that the co-alcoholic should be encouraged to practice both openness to the outside and a certain " intolerance " on the inside.

3. The covert alcoholic in professional surroundings, with the help of a co-alcoholic relative. Sufficiently rapid intervention e.g., by the physician at work still permits effective action to tear down the wall of silence. Prevention cam-

paigns within companies have permitted the establishment of early, effective treatment

4. In the face of the law, we witness an attempt at minimizing the fact of recourse to alcohol so as to avoid conviction. Experienced doctors in these cases may serve as co-alcoholics and through well-meaning certificates allow this illusory solution represented by alcoholism to go on unchecked.

5. Finally, dissimulation before medicine and, particularly, psychiatry: these are the typical negations leading me, personally, to modify radically our therapeutic apparatus, introducing therein the one asking for treatment and the unbalanced co-alcoholic.

Quite frequently, the specialist in internal medicine is faced with pathologies whose etiology must be regarded as purely alcoholic. In the internal medicine services specializing in gastroenterology up to 35% of patients present an alcoholic pathology. Paradoxically, at that level, alcoholism is often recognized by the patient and his family, but what is denied is its " inner necessity " for the subject's or the family's vital balance.

In a recent study we showed that 23% of those hospitalized for an alcoholism problem said they had only a somatic problem.

In conclusion, having reached the end of our question on " Who, what, and from whom? " we hope to have been able to show that the phenomenon of dissimulation is congenial to that of alcoholism. It involves a dimension of secrecy, with broad social and cultural motivation, by the co-alcoholic and the alcoholic, but also more individual, psychological motivation in many alcoholics. Only active, organized, and early prevention can, on the one hand, encourage people threatened or tempted to resort to alcoholism to seek other, more effective long-range solutions and, on the other, discourage potential co-alcoholics from undertaking that Sisyphean toil and practicing pathogenic tolerance.

In short, we would like to advocate the promotion of a medicine of man in this case, the sick person wherein the latter could no longer hide, with the doctor's obliging assistance, behind a symptom organ or reductive psychopathology.

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References

ROBINS L.N.; WEST P.A.; MURPHY G.E. *The high rate of suicide in older white men: a study testing ten hypotheses*. Social Psychiatry, 12, 1977, pp. 1-20

ROUSSAUX J.P.; DERELY M. *Alcoolismes et toxicomanies*. De Boeck-Westmael, Bruxelles, 1989

STEINGLASS P. *The alcoholic family* Basic Books, New York, 1987



CHARLES S. LIEBER

Somatic Disorders in Alcohol Abuse

The impact of medical disorders associated with alcoholism is illustrated by the fact that in the USA, twenty to forty percent of all hospital beds are occupied by patients with complications of alcohol abuse and alcoholism. In 1990, these disorders were estimated to cost in excess of 16.5 billion dollars per year in health care costs alone, not taking into account lost employment and reduced productivity. Just one of these many somatic complications, namely scarring or cirrhosis of the liver, is the fourth most frequent cause of death among those 25 to 64 years of age in urban areas such as New York City. It has been shown that the incidence of these complications is directly related to the per capita alcohol consumption. In that respect, the United States ranks nineteenth among the developed countries. Thus, somatic illnesses associated with alcohol abuse and alcoholism have evolved into a major public health problem, not only in the United States, but worldwide, with many countries (such as France, Italy, and Spain) having an even higher mortality from cirrhosis than the United States. Recently, a modest decline in overall alcohol consumption and related problems has occurred, but an opposite trend was noted among adolescents and, worldwide, alcohol consumption is still increasing. For all the attention being directed toward illicit substances, alcohol remains the favorite mood-altering drug. To the extent that drinking patterns in today's adolescents will continue into adulthood, a persistence of the severity of the problems resulting from somatic disorders generated by alcohol abuse and their further exacerbation can be anticipated. The purpose of this review is to highlight a few of these somatic complications with the hope that some of this information, when passed along to the public, will make alcohol abuse less attractive and treatment more compelling.

The biological aspects of alcoholism extend to all different areas of internal medicine (Lieber, 1990a), because alcohol abuse affects all organs of the body (Lieber, 1992). It atrophies many tissues, including the brain and the endocrine glands. Indeed, altered hepatic metabolism plays a key role in a variety of endocrinological imbalances (such as gonadal dysfunctions and reproductive problems). Alcohol also exerts toxic effects on the bone marrow and alters hematological status (e.g. macrocytic anemias) and it scars the heart and other muscles. For the sake of brevity, this presentation focuses mainly on the liver and gastrointestinal tract since this is where alcohol penetrates into the body and has its most vicious effects; this will also allow us to exemplify the insights and possible benefits that can be derived from the application of newly acquired knowledge in biochemistry, pathology, and molecular biology.

Liver disease, one of the most

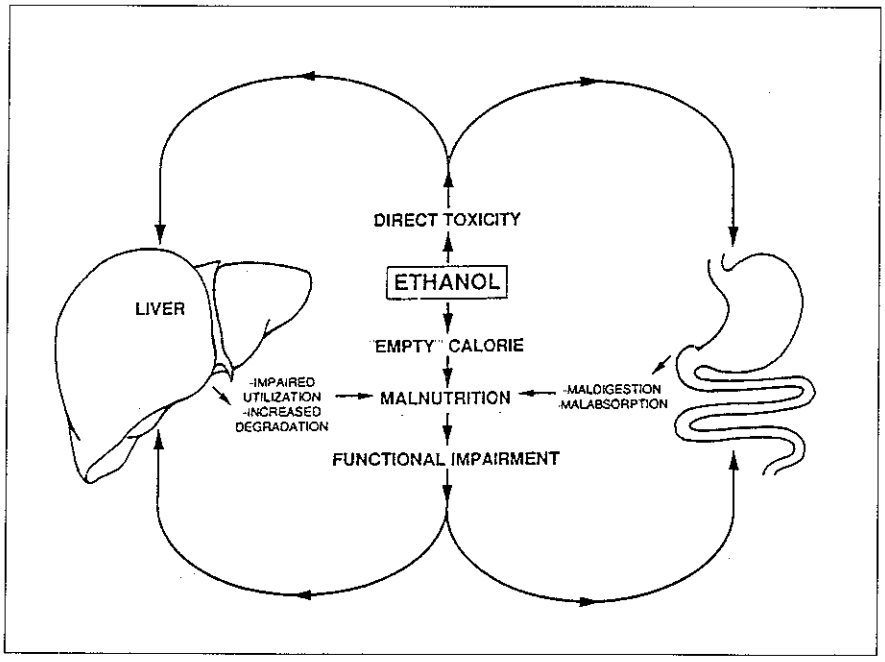

Fig. 1. Interaction of direct toxicity of ethanol (alcohol) with malnutrition due to primary or secondary deficiencies. Secondary malnutrition may be caused by either maldigestion and malabsorption or impaired utilization (decreased activation and/or increased inactivation) of nutrients. Both " direct toxicity " of ethanol and malnutrition (whether primary or secondary) may affect function and structure of liver and gut. (From Lieber, 1991).

devastating complications of alcoholism, was formerly attributed exclusively to associated malnutrition Indeed, nutritional deficiencies are not uncommon in the alcoholic and for various reasons, some socioeconomic, but also because alcohol is a very unique compound. Alcohol is a drug, a psychoactive drug, but unlike other drugs, which have a negligible energy value, alcohol has a high energy content: each gram of alcohol contributes 7 kilocalories, which means that a drink or a glass of wine will provide 100-150 kilocalories. Thus, alcoholic beverages are similar to food in terms of energy but, unlike food, they are devoid of minerals, vitamins, proteins and other nutrients; they act as a kind of empty calories (figure 1), displacing other nutrients in the diet, thereby promoting primary malnutrition.

Nutrition is also impaired because alcohol affects the G I tract. Alcohol-induced intestinal lesions, including pancreatitis, are associated with maldigestion and malabsorption, causing secondary malnutrition (figure 1). Alcohol also adversely affects nutritional status by altering the hepatic activation or degradation of essential nutrients. Thus, nutritional deficiencies, when present, should be corrected, but such efforts were found to be ineffective in fully preventing liver disease Indeed, studies conducted in the past three decades have shown that either the initial liver lesion —the fatty liver— or the ultimate stage of cirrhosis can be produced by excess alcohol, even in the absence of dietary deficiencies (Lieber, 1991). This recognition of the direct toxic action of alcohol and the subsequently acquired insight into the biochemistry of alcohol's effects have provided new approaches to both pathogenesis and prevention. Elucidation of the hepatic redox changes associated with alcohol (also called ethanol) oxidation via the alcohol dehydrogenase pathway have furthered our understanding of associated disorders in carbohydrate, lipid, purine, and protein metabolism, including hypoglycemia, hyperlactacidemia (and acidosis), and hyperlipemia, as well as hyperuricemia (Lieber, 1976) (figure 2). Alcohol dehydrogenase converts ethanol to acetaldehyde and hydrogen. Hydrogen is a

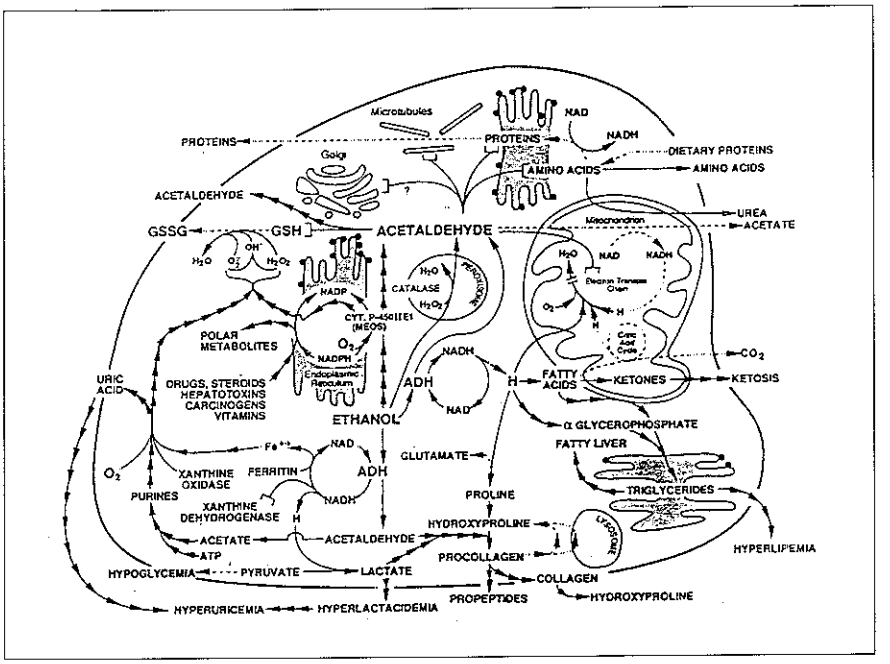

Fig. 2. Oxidation of ethanol in the hepatocyte. Many disturbances in intermediary metabolism and toxic effects can be linked to (1) alcohol dehydrogenase (ADH) - mediated generation of NADH, (2) the induction of the activity of microsomal enzymes, especially P450IIE1 and (3) acetaldehyde, the product of ethanol oxidation. NAD = nicotinamide adenine dinucleotide; NADH = reduced NAD; GSH = reduced glutathione; GSSG = oxidized glutathione. The broken lines indicate pathways that are depressed by ethanol, whereas repeated arrows reflect stimulation or activation. The symbol - [denotes interference or binding. (From Lieber, 1991).

form of fuel which can be burned or oxidized. Normally, the liver burns fat for the production of the energy required for its functioning but, when alcohol is present, it displaces fat as a preferred fuel: when the liver stops burning fat and instead burns the hydrogen from the ethanol, fat accumulates and a fatty liver develops, which is the first stage of alcoholic liver disease (Lieber, 1992).

Emphasis has also been placed on the role of a newly discovered microsomal ethanol-oxidizing pathway (MEOS) (Lieber and De Carli, 1968), involving a specific cytochrome P-450 (P450IIE1). Contrary to alcohol dehydrogenase, this pathway is inducible by chronic alcohol consumption (Lieber and De Carli, 1970) (figure 3; Lieber, 1988). In human liver biopsies, we found a 5-10 fold increase of this alcohol-inducible form (Tsutsumi et al , 1989). This induction represents one of the most striking biochemical differences between heavy drinkers and others and provides an explanation for the metabolic tolerance to ethanol that develops after alcohol abuse. The induction spills over to microsomal systems that metabolize other substrates, resulting in cross-tolerance to other drugs, involving not only sedatives and tranquilizers, but also many commonly used medications, such as anticoagulants and hypoglycemic agents (Lieber, 1990b) (figure 3). Thus, heavy drinkers will require an increased drug dosage of many commonly used medications, at least at the initial stage, prior to the development of severe liver disease. When liver disease develops, it will offset the induction, at which time drug dosage may have to be decreased. What complicates treatment even further is the fact that the microsomal enzymes (especially P450IIE1) also activate many xenobiotic agents to highly toxic compounds. This now explains the increased vulnerability of heavy drinkers to the hepatotoxicity of industrial solvents, anesthetics, and chemical carcinogens. The latter contributes to the increased incidence of various cancers in the alcoholic. Alcohol has a major impact on gastrointestinal cancers, with a significant increase in the incidence of neoplasms of the oropharynx, the esophagus, the stomach,

the liver, and the colon (Garro and Lieber, 1990) There is also activation (to toxic metabolites) of commonly used drugs and even over-the-counter analgesics (acetaminophen or paracetamol) and vitamins, such as vitamin A. In the heavy drinker, there is both increased breakdown and hepatic depletion of vitamin A (Leo and Lieber, 1982), with adverse consequences. In addition, alcohol potentiates the toxicity of vitamin A, which complicates supplementation with the vitamin in the presence of alcohol abuse (Lieber and Leo, 1986)

The induction of the microsomal ethanol oxidizing pathway also leads to increased breakdown of alcohol to acetaldehyde, a very reactive product (figure 2). Acetaldehyde, in turn, causes injury through the formation of adducts with proteins, resulting in antibody formation, inactivation of many key enzymes, decreased DNA repair, and alterations in microtubules, mitochondria, and plasma membranes. Acetaldehyde also promotes hepatic collagen synthesis as well as glutathione depletion, thereby exacerbating the toxicity mediated by free radicals, and resulting in lipid peroxidation and other tissue damage (Lieber, 1992). Because of the far reaching toxicity of this metabolite of ethanol, some of the liver cells die; this attracts inflammatory cells, leading to a more severe stage, namely alcoholic hepatitis, a precursor to the ultimate scarring or cirrhosis.

Once there is cirrhosis, a number of complications ensue, including the obstruction to blood flow, and a buildup of water in the abdominal cavity, so called ascites. It is usually at that stage that physicians intervene to try to help the patient, but this is usually much too late: once patients reach that stage they remain crippled for life and may soon die, often because of rupture and bleeding of an obstructed internal blood vessel. Thus it would make much more sense to intervene at an earlier stage. The newly acquired understanding of the pathophysiology of alcohol-induced liver damage has improved rational therapy with drugs and nutritional factors. Furthermore, it may eventually allow successful prevention through a public health approach (Lieber, 1982), based on the early recognition of heavy drinkers before their social or medical disintegration. This might be achieved, in part, through biological markers of heavy drinking (Rosman and Lieber, 1990; Xin et al., 1991). In that population at risk, we can now also detect precursor lesions indicating a propensity to develop major organ damage, such as cirrhosis of the liver (Worner and Lieber, 1985); such predisposition, in turn, warrants a major effort at prevention and treatment. In those heavy drinkers prone to develop major somatic complications upon continuation of excessive consumption, therapy is based on curbing alcohol abuse, and treating nutritional deficiencies (when present). Therapies more specifically targeted against major somatic complications are also evolving, such as correction of the glutathione depletion by the administration of suitable precursors (such as S-adenosyl methionine) (Lieber et al., 1990a). S-adenosyl methionine also favors transmethylation and synthesis of phospholipids, the backbone of the cell's membranes. Membrane damage, common after alcohol abuse may thereby be attenuated. In addition, experimentally, polyunsaturated phospholipids were shown to be capable of opposing the cirrhotic process (Lieber et al., 1990b).

The high alcohol concentration in the stomach is not only responsible for gastritis, an inflammation of that organ that commonly ails the alcoholic, but it also impacts on the body's defense against alcohol. The normal gastric mucosa represents a "protective barrier" by slowing alcohol absorption and metabolizing some of the alcohol consumed, thereby decreasing its access to the bloodstream and other tissues, including the brain. This protective mechanism is less effective in women than in men (Frezza et al., 1990), and it is further decreased by chronic alcohol abuse (Di Padova et al., 1987), as well as by many commonly used medications (Di Padova et al., 1992), which thereby exacerbate the systemic effects of alcohol. Most importantly, it decreases the threshold at which social drinking impairs driving and operating other machinery.

Although progress is being made

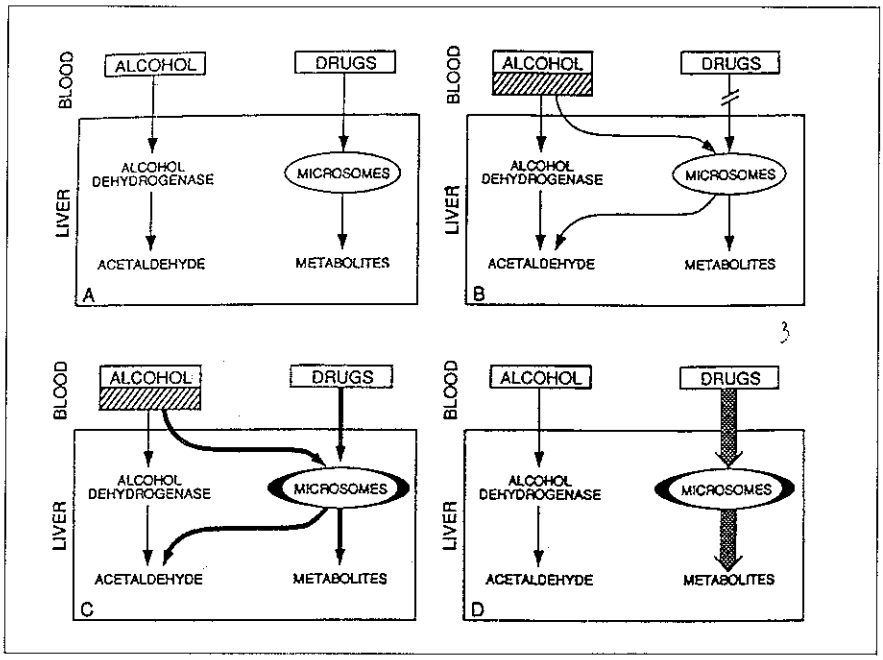

Fig. 3. Hepatic ethanol-drug interactions. (A) Metabolism of alcohol by alcohol dehydrogenase and drugs by microsomes; (B) inhibition of microsomal drug metabolism in the presence of high concentrations of ethanol, in part through competition for a common microsomal detoxification process; (C) microsomal induction after chronic alcohol consumption and contribution to accelerated ethanol metabolism at high blood ethanol levels; (D) increased drug metabolism and activation of hepatotoxic agents because of microsomal induction persisting after withdrawal from chronic alcohol consumption. (From Lieber, 1988).

at offsetting the toxicity of ethanol through chemical means and judicious supplements, the single fully effective way at preventing somatic alcoholic injury remains control of the toxic agent (ethanol), through moderation of consumption. Full abstinence is required in those who are genetically (or otherwise) prone to exhibit dependence or are predisposed to develop the major somatic complication upon chronic excessive use of alcohol, " excess " being defined individually, taking into account gender, heredity, and personal idiosyncrasies.

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Bibliography

(The references list primarily some of the author's investigations. The numerous contributions by other groups are quoted in the cited reviews and books)

DI PADOVA, C., WORNER, T.M., JULKUNEN, R.J.K., LIEBER, C.S., *Effects of fasting and chronic alcohol consumption on the first pass metabolism of ethanol.* Gastroenterology 92: 1169-1173, 1987

DI PADOVA, C., ROINE, R., FREZZA, M., GENTRY, R.T., BARAONA, E., LIEBER, C.S. *Effects of ranitidine on blood alcohol levels after ethanol ingestion comparison with other H2-receptor antagonists.* JAMA Vol 267 (January 1), 1992.

FREZZA, M., DI PADOVA, C., POZZATO, G., TERPIN, M., BARAONA, E., LIEBER, C.S., *High blood alcohol levels in women: Role of decreased gastric alcohol dehydrogenase activity and first pass metabolism.* N Engl J Med 322: 95-99, 1990

GARRO, A.J. and LIEBER, C.S., *Alcohol and cancer.* Annu Rev of Pharmacol and Toxicol 30: 219-249, 1990.

LEO M.A. and LIEBER, C.S., *Hepatic vitamin A depletion in alcoholic liver injury.* N Engl J Med 307: 597-601, 1982.

LIEBER, C.S., *The metabolism of alcohol and the biological cost for its overuse*, Sci Am 234: 25-33, 1976

LIEBER, C.S., *A public health approach for the control of the disease of alcoholism.* Alcoholism: Clin Exp Res 6: 171-177 1982

LIEBER, C.S., *Biochemical and molecular basis for alcohol-induced injury to liver and other tissues.* N Engl J Med 319: 1639-1650, 1988.

LIEBER, C.S., *Editorial. Alcoholism, a disease of internal medicine* J Stud Alcohol, 51: 101-103, 1990a

LIEBER, C.S., *Interaction of ethanol with drugs, hepatotoxic agents, carcinogens and vitamins* Alcohol Alcohol 25: 157-176, 1990b

LIEBER, C.S., *Alcohol, liver and nutrition*, J Am Col Nutr 10: 602-632, 1991.

LIEBER, C.S., *Medical and Nutritional Complications of Alcoholism. Mechanisms and Management.* (Lieber, C.S. ed.) Plenum Press, New York, N.Y. (in press), 1992.

LIEBER, C.S. and DE CARLI, L.M., *Ethanol oxidation by hepatic microsomes. Adaptive increase after ethanol feeding.* Science 162: 917-918, 1968

LIEBER, C.S. and DE CARLI, L.M., *Hepatic microsomal ethanol oxidizing system. In vitro characteristics and adaptive properties in vivo* J Biol Chem 245:2505-2512, 1970

LIEBER, C.S. and LEO, M.A., *Interaction of alcohol and nutritional factors with hepatic fibrosis.* In: Metabolism and Nutrition in Liver Disease (Holm, E. and Kasper, H. eds.) MTP Press Ltd., Lancaster, England, Falk Symposium No. 41 pp. 157-179, 1986.

LIEBER, C.S., CASINI, A., DE CARLI, L.M., KIM, C., LOWE, N., SASAKI, R., LEO, M.A. *S-adenosyl-L-methionine attenuates alcohol-induced liver injury in the baboon*, Hepatology 11: 165-172, 1990a

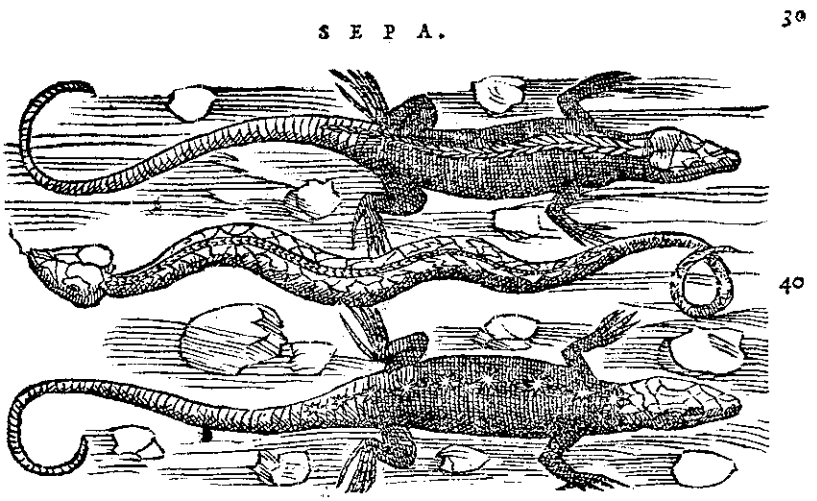
LIEBER, C.S., DE CARLI, L.M., MAK, K.M., KIM, C.I., LEO, M.A., *Attenuation of alcohol-induced hepatic fibrosis by polyunsaturated lecithin* Hepatology 12:1390-1398, 1990b.

ROSMAN, A.S. and LIEBER, C.S., *Biochemical markers of alcohol consumption.* Alcohol Health and Research World 14: 210-218, 1990

TSUTSUMI, M., LASKER, J.M., SHIMIZU, M., ROSMAN, A.S., LIEBER, C.S., *The intralobular distribution of ethanol-inducible P450IIE1 in rat and human liver* Hepatology 10:437-446, 1989.

WORNER, T.M. and LIEBER, C.S., *Perivenular fibrosis as precursor lesion of cirrhosis* JAMA 254: 627-630, 1985

XIN, Y., LASKER, J.M., ROSMAN, A.S., LIEBER, C.S., *Isoelectric focusing/Western blotting: A novel and practical method for quantitation of carbohydrate-deficient transferrin in alcoholics* Alcoholism: Clin Exp Res 15:831-838, 1991.



YURII LISITSIN

Alcoholism: Sociocultural Aspects and Spirituality

The article entitled " Soberly on Sobriety, " in Communist magazine, stated, " Arising in ancient times, myths on dipsomania have now become one of the most important forms of spontaneous ideology, obstructing health measures in society and justifying social illnesses. They have survived savage states and barbarism, adapted to slavery, feudalism, and capitalism, and incorporated themselves quite well into socialism. " And, although the authors of this article, including myself, have made an attempt to unmask dipsomania myths, such a statement will be regarded by supporters of one of the most popular myths as confirmation of their views. According to these convictions, alcoholic and narcotic substance consumption is characteristic of human nature, an attribute of physical need which arose at the same time as the human being, that is, in ancient times.

But such statements require serious consideration and clarification. The need for alcohol could not appear until men became familiar with narcotic ingredients and acquired the ability to prepare them.

Historical, archaeological, ethnographical, etc., investigation prove that this came into being only at one of the stages in human evolution, when people, using wild and, later, specially cultivated plants, began to prepare " intoxicating potions, " narcotics, including alcoholic substances. Their consumption, spontaneous at first, then became associated with religious sensations and beliefs, acquiring the character of ritual. It should be mentioned that pagan beliefs and monotheistic religious teaching did not even forbid, but, on the contrary, adopted cultural rituals involving the use of alcohol. Such drinking rituals were sometimes connected with communication with higher beings, the Creator, ancestral spirits, that were nonmaterial, transcendental. Religion, as a spiritual institution, was thus able to introduce rituals employing alcohol. This aspect should be considered when explaining drinking traditions accompanying holidays, jubilees, and so on among different nations. They could symbolize physical and spiritual health. It is not by accident that the most popular toast since ancient times has been " To your health. " Such traditions are intensively dealt with not only in scientific research and works of art and literature, but in folk epics. Describing one of the eastern Slavic customs, A.S. Pushkin exclaimed, " Not a little did our ancestors drink, beakers, silver cups full of fizzing beer and wine! " So far statements suggesting primary human physical and even spiritual need for alcohol contradict the historical picture of the world and human evolution. Before human beings became used to alcohol, they had spent most of their history in " alcohol-free space, " leading a sober way of life. Dipsomania is a historical phenomenon, connected with a certain stage in the social, economic, psychological, spiritual, that is, cultural, evolution of humanity. The statement about a primary physical need for alcohol is a myth.

But what is a myth? Our estimation of its content depends on this conceptual interpretation. In a popular encyclopaedic work, Myths of the World's Nations, we read, " Mythology is the main way to understand the world; a myth is itself a disposition and attitude of the period of its creation. " A myth is, therefore, not just a deviant, antiscientific reflection of some phenomenon or event, but information containing the essence of knowledge, deserving attention and mirroring reality. In such research we consider alcohol myths as they are. And among them one of the most popular and constant myths concerns the possibility of eliminating alcohol consumption by means of administrative decrees and resolutions; a myth about the effectiveness of so-called " dry laws. "

In general, the history of these laws and banning measures in Europe and the U.S. offers, it seems, convincing testimony of their ineffectiveness, and, in addition, of their evident harmfulness, even involving the unlawful production and sale of alcohol and its substitutes, the origin of the Mafia. Administrative and authoritarian measures are still being taken. The most illustrative example of this is the well-known anti-alcohol campaign in the USSR, undertaken in May 1985. All means have been mobilized for an attack on dipsomania, be they administrative and legal (abrupt elimination of alcohol production and sale, strict accountability for breaking the law), educational (popularizing a sober way of life), or intellectual (explanations, information on alcohol's disrupting influence on health). But still the campaign has proved unsuccessful. After rather considerable reduction in alcohol production and consumption (cut by one half, down to 3.61 per capita in 1987), a new alcoholic wave began, mainly through

notably intensified illegal home production and secret sales. Now the volume of homebrewing has reached that of legal alcohol production, which, in spite of bans, is increasing. Along with increases in narcomania and toxicomania, the campaign to eliminate dipsomania and alcoholism has led to economic loss for our government because of a considerable reduction in alcohol sales (up to 30 billion roubles per year). The attempt to improve general health was also a failure. There has been no substantial reduction in the number of sick people (there remain 4.5 million chronic alcoholics). Effects on alcoholic psychosis and the reduction of alcohol-related injuries and diseases have proved short-term. The social psychology of our population, which is quite able to regulate alcohol consumption and lead a sober way of life, has received an ungrounded and incorrect blow. The myth has proved stronger than sensible appraisal of historical experience and the complexity of the problem of overcoming alcoholism and dipsomania.

Underestimation of social, cultural, and psychological factors is quite evident and, what is more important, the value of spiritual strength. It is necessary to distinguish between two types of spirituality as the quintessence of culture. The first type is primitive spirituality as a product of undeveloped culture involving passivity and the indifference of most of the population. This type of spirituality was stimulated by dogmatic, one-sided, mostly elementary materialistic ideology, cultivated by an administrative command system. It considered the human being as a cog, one of many in a gray, amorphous mass, blindly obedient to the system. This situation and such a low cultural level, with a lack of human freedom, created a spiritual vacuum and contributed to mass alcoholism. This statement is not merely a suggestion. The history of alcoholism, this social and spiritual, medical and pathological phenomenon, shows increases in years of social and cultural regression, with the strengthening of aggressive political tendencies and a drop in morals and conscience. There are plenty of such examples in Russian history, indeed, in each period of reactionary politics, accompanied by depression, mass oppression, the activation of conservative forces, dictatorial administration, deformation, cultural regression, and the persecution of progressive science, there has been an increase in alcoholism and dipsomania. This was characteristic of the period of severe reaction after the first Russian social democratic revolution, before the First World War, when alcohol consumption doubled or tripled (up to nearly 4 litres of spiritus per capita) for several years. Such was the postwar situation, as a result of the abolition of strict prohibitive measures and the introduction of a state monopoly for the production and sale of alcohol. Alcoholism was also rampant at the height of the power of the administrative command system, with the personality cult and monopoly of party ideology. At the beginning of World War II, alcohol consumption reached 3-4 litres, in addition to alcohol substitutes. Alcoholism greatly increased as well in the so-called stagnation period from the 1960's to the 1980's. In the mid-eighties, official alcohol consumption reached 8 litres, and, if we take into account home production, more than 10 per capita (1984).



Research on alcoholism shows, first of all, a very low cultural level, a surplus of time not occupied by productive labor, a low professional and educational level, an unfavorable family and work situation, the early start of children's dipsomania, alcoholic habits of relatives, the influence of heredity, and a fragile, vulnerable personality structure. We shall not dwell on other causes and risk factors fostering alcoholism and dipsomania, but we must stress the significance of a low-level, primitive spirituality, along with the absence or negligible influence of national religious traditions prohibiting or deploring the abuse of alcohol. Many examples could be cited in our country as well as abroad. There is thus a low incidence of alcoholism and dipsomania in Central Asia and Caucasia, especially Armenia. On the other hand, in regions where national and religious (or both) traditions are weak, the level of alcoholism is considerably higher. In the data for 1987, there were 15 primary dipsomaniacs per 100,000 people in Ar-

menia, 32 in Georgia, and 45 in Uzbekistan, but 223 in Russia, 231 in Latvia, and 259 in Moldavia.

The second type of spirituality reflects a high cultural level, stable, humane national traditions, devotion to a healthy way of life, independence, and free personality development. Such a spirituality is contrary to alcohol abuse, and the experience of various regions, nations, and population groups with a high level of civilization and cultural development reveals positive possibilities and success in overcoming the malady. Research into the role of general and medical culture, along with educational and professional levels, shows a clear correlation between these factors and the extent of alcoholism and dipsomania. For instance, according to our data, 59% of male dipsomaniacs are unqualified workers, and 29% are employees with a higher level of general and professional education.

The Alcoholics Anonymous movement, with hundreds of thousands of people from different countries all over the world, is a convincing example of the role of the spirit in overcoming this problem. The members of this society themselves recognize their impotence against alcohol and the fact that the only way out is through access to a certain spiritual force enabling them to overcome illness and return to normal life. One of the points of the so-called " Twelve Steps " program of AA reads, " We have come to the conclusion that a force more powerful than ours can restore us to health. " Today this program of cultural revival and curing is rightly considered to be the most effective.

Analysis of social and cultural aspects, including myths and spiritual meaning, allows us to outline the right policy to eliminate this social evil, based not on commanding, prohibiting, or other voluntaristic measures and decisions, but on a consistent system of educational measures which overcome the very need for alcohol.

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A. BERETTA-ANGUISSOLA, E. BARTOLI

Difficulties in Early Diagnosis of Alcoholism

The clinical picture of alcoholism in an advanced phase can easily be ascertained on the basis of case histories and significant laboratory data. In table 1 we list the most common symptoms, in table 2 the objective physical signs, in table 3 the most important biochemical and hematological markers.

It is difficult, however, to make a diagnosis in the precocious phase when there is still no psychophysical damage due to alcohol misuse, and when it is even uncertain where the borderline is between a habitual drinker of relatively high quantities with some sporadic excess, and an alcoholic, affected by alcohol addiction (Rankin and Armstrong, 1987). While talking about " precocious diagnosis, " we assume that alcoholism is considered in the same way as a disease (Kissin et al., 1977). And this is true, very true, if we consider the individual psychophysical damage alcohol can cause, often to such an extent that it leads to death. But alcoholism is not only this. It goes hand in hand with family and social problems of great importance which join together in a particular way; they really distinguish it. It is because of these aspects, a preeminently social disease. The precocious diagnosis of any kind of disease, as a rule, is not easy to make: in the case of alcoholism there are various and also particular reasons that make it difficult.

Firstly, the obstacle very often is the patient himself, who not only omits telling the doctor spontaneously the facts, but tries to hide them even when he is questioned. The omission is not always deliberate: often the patient himself doesn't think about a causal relationship between excessive daily alcohol consumption and the ailment he feels and therefore he doesn't talk about it. On the other hand, in the initial phase of the disease there are no pathognomonic symptoms or specific biochemical analyses. Therefore, in the face of a very often reticent patient and a still not significant objectivity, the doctor may not head for the right diagnosis.

We have to add that the doctor may have his share of responsibility in faulty diagnosis in the early phase. Because, as happens with all diseases, the doctor, first of all, has " to think over " the various diagnostic hypotheses he is going to develop during the first approach to the patient (based on data obtained from dialogue and physical tests) and not forget alcoholism, which is found in both sexes every where on earth, especially if he is practising in a region of high alcoholic risk.

Alcohol misuse concerns millions of individuals and is the cause of about 50,000 annual deaths in the USA (West, 1984), of 70,000 in Italy, and 60,000 in France.

According to the World Health Organization, the Italian situation is distinguished by:

1) a continuous increase of alcoholic drinks from national production and importation (especially superalcoholic drinks).

2) The overall average consumption of alcohol per capita per annum is one of the highest in Europe.

3) A high number of admissions to public and private hospitals due to alcohol psychosis and syndromes of alcohol addiction.

4) An increase of mortality due to alcohol psychosis, addiction syndromes, and hepatic cirrhosis.

According to the data supplied by Modonutti, Buttolo e al. (1987), in the Italian population out of 100,000 inhabitants 9.2% are heavy drinkers and death due to alcohol misuse occurs in these people at a level of 51.2%.

A good cultural level is the basis for correct diagnostic methodology in the early phase of alcoholism: this is the reason why the physician has not only to be a good technician, but has to be a " doctor, " which means an " erudite " man.

The problem of precocious diagnosis of alcoholism is seen from different points of view according to the doctor's formation and specialization. There is a different approach, for example, in an internist (family doctor), psychiatrist, or expert at an antialcoholic centre. But in the reflections I am going to expound, and which concern exclusively the problem of early diagnosis of alcoholism, I will take into account the behaviour of a general practitioner.

In the approach to this particular kind of patient the " conversation " is basic and irreplaceable (Orrego et al., 1979). In this case, the doctor's hurry is, more than ever, a bad counsellor. It needs time, and if there is no time in the first meeting it is better to wait for a conversation possibility in the second meeting, because otherwise, taking into account the abovementioned difficulties, there will never be an early diagnosis. Even if the suspicion

arises already in the first meeting, it is nearly always advisable to postpone the conversation until a more adequate moment when there is more time for a profound and accurate examination of the medical, personal, and family history.

The doctor's behaviour towards the alcohol-addicted is of the utmost importance. Every kind of prejudice is out of place. If the doctor according to his ethic principles, doesn't consider this morbid condition a real disease that has to be cured, but rather a " vice " which deserves minor interest, and if he feels a kind of moral condemnation for it, it is better for him to refer the patient to other collegues, for example, to a psychologist, psychoanalyst, to specialized centres or, if necessary, to hospital. After the diagnosis, there arises the problem of treatment, which requires always commitment and probably the help of other persons because the general practitioner may not wish to assume the responsibility. It would be a serious error to give the patient only general advice and prescribe some tranquillizer (Buttolo et al., 1984).

We said that, because of the wide spread of alcohol misuse, the doctor has to realize clearly the cause of disease in his daily work in the

Table 1 - The most frequent symptoms of alcoholism

Organ or apparatus	Symptoms	Phisiopathologic lesions or alterations
Esophagus	Pyrosis, dysphagia	Esophagitis
Stomach	Pyrosis, nausea, vomiting, inappetence	Gastritis
	Haematemesis Melaene	Mallory Weiss syndrome Erosive gastritis
Intestinal tract	Diarrhea Malnutrition	Enteritis
Liver	Icterus, epigastric-hypocondriac pain Nausea, vomiting, encephalopathy, portal hypertension	Acute hepatitis Hepatic steatosis Chronic hepatitis Hepatic Cirrhosis
Pancreas	Bar epigastric pain Diarrhea	Pancreatitis
CNS (Central Nervous System)	Shaking, perspiration Convulsions	Abstinence syndrome Hypoglycemia
	Insomnia, cephalalgy, phobia	Depressions, psychosis
	Confusion, psychomotory restlessness, mental deterioration, coma	Encephalopathy
PNS (Peripheral Nervous System)	Paresthesia, Acroparesthesia, smarts (guanto e calza), periferal paresis	Neuritis
Heart	Palpitations, dyspnoea Heart failure	Congestive cardiomyopathy
Musculuskeleted System	Repeated traumas Fractures	Falls, accidents
	Asthenia	Myopathy
Joints	Gout, Dupuytren	Hyperuricemia, arthritis
Metabolism	Obesity	
Genital tract	Reduced libido Infertility	Gonadic and pituitary alterations
	Multiple abortions, dead born foetus, congenital malformations, low weight at birth	Fetal alcohol syndrome

Figure 1a - Alcoholism Prevalence 2%

Test result	Present	Absent	Total	Positive predictive value
Positive	190	980	1,170	$\frac{190}{1,170} = 16\%$
Negative	10	8,820	8,830	$\frac{8,820}{8,830} = 99\%$ Negative predictive value
Total	200	9,800	10.000 subjects studied	
Sensitivity → $\frac{190}{200} = 95\%$		$\frac{8,820}{9,800} = 90\% =$ ← Specificity		

In a sample of 10,000 subjects tested with this combination of examinations 200 are alcoholics (2% prevalence) As the test is 95% sensitive, it will prove positive in 190 alcoholics, and falsely negative for the remaining 10 The test's diagnostic value is thus 16% (positive predictive value). The exclusion value is extremely high (negative predictive value) is extremely high (99%)

consulting room and also in hospital. He shouldn't forget that alcohol addiction doesn't occur only in the male sex of low social extraction, in difficult economic situations, with low morality and education levels, performing heavy labor. This stereotype is no longer valid today. Statistics show that alcohol misuse occurs also in women, in learned persons, professionals, and in people belonging economically to higher ranks. Therefore, the doctor mustn't have any prejudice as to who will and will not drink beyond measure

Is there a psychophysical personality prone to alcohol misuse? Is there a genetically based tendency to alcohol misuse as in other drugs? This is an extremely controversial problem. Studies done on twins (Schuckit, 1985) and persons living with alcohol addicts (Goodwin, 1985) suggest that family alcoholism may be, at least in part, genetically determined. There is disagreement in the different studies, but evidence shows higher correspondence in identical than in non-identical twins. Research done on adoption in Sweden, Denmark, and the United States shows that the rate of alcohol addiction in children of alcoholics is 3-4 times higher than in children of non-alcoholics. The most curious fact is that vulnerability to alcoholism has not only a genetic component, but is transmitted regardless of other psychopathologies of the adult (Cadoret et al., 1985, Marikangas et al., 1985). But alcoholism is not always family-related, just as alcoholism that occurs within a family is not always genetically determined. It is known that there are hereditary and sporadic forms In this conference, Professor Bernard Hillemand will report about the genetic basis of alcoholism relying on an abundance of data. There may be discussion on the "personality" inclined to alcohol misuse, but there is no doubt about the influence of the family and the social environment. In some families and some working places, the habit of consuming wine or other alcoholic drinks exerts a kind of pressure difficult to withstand

As far as the danger of becoming alcoholics is concerned, there is certainly higher evidence in the male sex: approximately three to five times higher (Goodwin, 1985). But we should not forget to consider alcohol a possible disease factor in women.

In recent years there has been a notable increase of alcohol consumption in women, also in younger ones (Malcolm, 1991). Another-

Figure 1b - Alcoholism Prevalence 20%

Test Result	Present	Absent	Total	Positive predictive value
Positive	1,900	800	2,700	$\frac{1,900}{2,700} = 70\%$
Negative	100	7,200	7,300	$\frac{7,200}{7,300} = 98\%$ Negative predictive value
Total	2,200	8,000	10,000 subjects studied	
Sensitivity → $\frac{1,900}{2,000} = 95\%$		$\frac{7,200}{8,000} = 90\%$ ← Specificity		

In a sample of 10,000 subjects tested. 2,000 (20%) are alcoholics. The positive test now correctly identifies 70% of alcoholics.

risk factor consists in belonging to a family where alcohol misuse has been practised for several generations, as happens particularly in certain family groups and in certain ethnic groups.

Finally, we should not forget the increasing consumption of high-proof drinks, an object of tempting advertising by the mass media. Many people make use of alcohol as a remedy against depressions. But it is more likely that depressions are the consequence and not the cause for alcoholism (Merikangas et al., 1985). This is confirmed by the observation that, when alcohol misuse is stopped, generally the symptoms of depression disappear. As we said before, however, the doctor must never consider alcohol misuse as a vice and not an illness. Alcohol misuse is not just a form of deliberate bad behaviour, but there is often a family or social component that explains the vulnerability of these persons. As mentioned, there is a strong assumption that a genetic element does exist, at least in certain forms of alcoholism. Some people compare alcoholism to diabetes, type II, where a genetic predisposition is accepted. And as a diabetic is cured when he is well advised, so will an alcoholic be when he sticks to the advised treatment (Kissin, 1977).

Alcoholism is a progressive disease and potentially fatal. The patient must be told the truth, because he is the first who has to understand that he suffers a real disease caused by a drug that encourages psychophysical addiction, but that can also be cured (Kissin e Plate, 1968).

It may be that the patient reacts in a hostile way to the questions put by the doctor, that he becomes estranged from him. Generally, the presence of the wife and other family members, also of work collegues, is useful because it becomes easier to put together the case history, and they can be informed about the possible consequences of alcohol misuse in order to cooperate during the period of treatment.

The symptoms in the initial phase of the disease are extremely

Table 2 - The most frequent physical signs of alcoholism

Organ	Physical signs	Aetiaology and pathogenesis
Skin	Ecchymosis, haematoma	Platelet function, traumas
	Excoriations	Neuritis itching
	Pediculosis, ulcera, intertrigo	Poor hygiene
	Palmar erythema Spider naevi Reduction of axillary hair	
Abdomen	Epatosplenomegalia Ascitis	
Eyes	Extrinsic motility alternates, nystagmus visus reduction	Wernicke Korsakoff neuritis
Heart	Tachycardia Venous congestion paraphonic tones	Cardiomyopathy
	Hypertension	Alcoholic hypertension Abstinence syndrome
Head	Nasal fractures, rosacea acne, caries, gengival retractions, red tongue with papillary atrophy	Traumas poor hygiene Dysvitaminosis
Pancreas	Pancreatic calcifications on abdominal X-ray	Chronic Pancreatitis
Muscles	Asthenia, symmetrically absent reflexes, atrophy pain, alterated sensitivity, ataxy	Neuromyopathy
Genitalia	Atrophic testicles	Impotence
	Vaginitis, cystitis	Poor hygiene

Table 3 - Major laboratory indexes of alcoholism

Index	Alteration	Signification
γGT	↑	Hepatic induction from alcohol
ALT	↑	Hepatic necrosis
AST	↑↑	Hepatic mitochondrial failure
MCV	↑	Nutritial and vitaminic deficit, marrow toxicity
Cholesterol HDL TG	↑	Hepatic apolipoprotein induction
Apolipoprotein A_1	↑	Hepatic fibrosys index
Testosteron	↓	Hypogonadism, impotence, infertility
Magnesium	↓	Increased magnesiuria
Glycemia	↓	Stop of glucogenesis
Uricemia	↑	Increased production and reduced excretion
MAO-platelet	↓	Inhibition
Osmolality	↑, $> 2 \cdot (P_{Na} + P_K)$	Acute intoxication
Alcoholemia	↑	Acute intoxication

arious. Many organs and apparauses can be affected as a result of lcohol misuse (Tab. 4,5,6). It is asy therefore to attribute a multiorm symptomatology that includes tomachburning, palpitation of the eart, acne, gout, weight increase, yperglycemia, headache, insomia, libido decrease, and infertility o other causes and not to alcoholsm. But somebody who thinks bout it does not exclude the causal ossibility and begins to develop his esearch in a tactful and careful ay. At first, during the conversaion with the patient and his family, nd later in an accurate, objective xamination with the help of some aboratory tests.

As we said before, dialogue is a ecisive element in a correct early iagnosis. But it has to be done, as lways, with great care, which in he case of alcoholism, means with articular perspicacity, discretion, nd comprehension. If the dialogue ppears to be an " interrogation " r inquisition, perhaps even accomanied by moralistic statements, ien the efforts of the doctor may e in vain. It could lead to " reticence " in the patient which would mean damage to him and his family and to his social environment as well.

In the beginning, the most important thing to know therefore is if, and in what quantities, the patient consumes alcohol. It must be a part of case history routine to put this question in the consulting room of the general practitioner (or family doctor, to use the old, nearly pathetic term). If alcoholism is so widely spread, it is impossible that sooner or later someone will not come to the consulting room who abuses alcohol. And still this question is not always put, or let us say, it's not put with the intention of deeper analysis. It requires, however, a certain ability if we want to avoid the immediate refusal of the patient.

The most adequate moment to face the issue may be to insert it in the context of questions about the eating habits and smoking habits of patients. Today, it has become a custom to ask about the consumption of carbohydrates, proteins, and fat. This question must be put also for alcoholic drinks, which is wine, beer, and liquors. We have to consider that a daily consumption of 100 gr. of alcohol, which is a minimum quantity most alcoholics consume, is equivalent to 900 calories, which means 225 gr. of sugar, 400 gr. of bread or pasta, and 300 gr. of meat. It is very difficult for somebody to declare spontaneously that he consumes alcohol, and even less he would declare the quantity: everybody has to be asked, therefore, men and women of any social rank, and especially when alcohol misuse is indicated by the patient's living and working environment, his family context, and, above all, by the kind of trouble he laments.

If the answer is positive, a more intensive examination has to be done, not only in order to prove the diagnosis, but also in order to collect useful or even necessary elements for the proper treatment. There are several guidelines (Pokorny, 1972, Wallace, 1985, Fleminf, 1991, Mayfield et al., 1974) for this part of dialogue with the patient, in order to define the details (development of alcohol misuse, modalities of daily consumption, addiction symptoms, family and social problems, etc.). The dialogue is ex-

Table 4 - Initial symptoms of alcoholism - Behavioral and subjective symptoms

Behavioral symptoms	Subjective symptoms
Irritability Insomnia Cephalea	Confusion Loss of concentration Loss of memory
Lack of appetite Run-down condition	Dyspespia, malnutrition, nausea, vomiting, epigastric pain
Irascibility	Repeated traumas, accidents, fractures, ecchymosis
Depression	Asthenia, tiredness, hypertension, palpitations, arrhitmias
Family conflicts Emotional instability Euphoria - psycosis Conflicts at work Reduced performance Loss of work days	Impotence, infertility, irregularity in sexual behavior

tremely useful and, in any case, of prime importance in the early diagnosis (according to Levine, in 80% of the cases there is a positive answer). Maybe it is of less importance in alcoholics in an advanced stage, as is confirmed by the small reliability of news supplied by patients, even if they are admitted to hospital. But in this stage the alcohol misuse is evident because of the psychophysical data and the reports of the family and social environment.

The dialogue with the patient, finally, has an inestimable value: it helps to establish a personal relationship that makes it easier to choose the proper treatment. As we said before, a lot depends on the ability of the questioning person, who has to try to make the patient talk with growing confidence by using discrete and adequate questions. In this meeting between doctor and patient, in fact, the latter is the main actor. Once the suspicion of alcoholism has arisen, it would be reasonable to examine possible changes of moods, brief signs of euphoria, irritability, anxiety or depression, insomnia, unstable performance at work, affective instability in the relation with the partner and the family members, with the collegues at the work-place, change in spending free time, etc. (Kissin and Platz, 1968, Loberg, 1980, Cadoret et al., 1985, Kristenson et al., 1983).

There has to be established a form of dialogue that leads to growing confidence and trust in the patient. Somebody will object, but it takes time, and then there is the risk of loosing time and gaining little. The consulting rooms, nowadays are not very suited for this purpose, considering the queues of " clients " only a little or not at all motivated.

But as we can't change a health system where the general practitioner is more a salaried employee than a professional, all the same there must be found the time to bring the conversation to an end. Furthermore, is it not possible to be a doctor without knowing the " person " (and not the patient) in front of us.

A different problem is mass screening. In order to get a better knowledge of alcohol misuse, there is wide use of questionnaires. They do exist in all forms, but this is not the place to show them all. I'd only like to mention the Michigan Alcohol Screening Test (MAST), that consists of 25 questions and has been transformed in several parts in order to make it easier for common use, but which has proved to be very sensitive and specific. CAGE instead, consists in only 4 questions and seems to give good results as well (in 80-90% of alcoholics there is a positive result). I want to mention also the Munich Alcoholism Test (MALT), the classification of DSM III, and the criteria proposed in order to establish alcohol addiction, the computerized questionnaires, which are brief and effective but which not all patients manage to fill out on their own. Certainly the medical approach to alcohol misuse doesn't stop here. The most important thing to do is to gather information on the ailments complained of, the reason why the patient went to the doctor. Gathering the facts of the personal case history, some elements are extremely important. In the first place, as we al

Table 5 - Initial symptoms of alcoholism - Physical and objective signs

Rosacea Acne
Echymosis, hematomas
Traumas, injuries, fractures
psychomotory restlessness
Trembling, perspiration
irritability, instability
Obesity
Loss of Strenght

Table 6 - Initial simptoms of alcoholism - Biochemical and laboratory Data

Test	Alteration	Sensitivity	Specificity
γ GT	↑	75%	80%
MCV	↑	90%	95%
HDLC	↑	50%	90%
Mg	↓	80%	90%
Uricaemia	↑		
Apolypoprotein A_1	↑		
Laminine	↑	Indices of hepatic fibrosis	
PGA index: P = Protrombine time G = γ GT A = Apolyprotein A_1		Intermediate level indicates initial alcoholism	
Ratio of plasmatic transferrin to total	↑	99%	97%
Monoamine oxidase	↓	75%	75%
↑ adenylciclase from CsF	↓	Depressed level for 12 months after alcohol interruptionrimane	

Data of Vestberg et al. (1984); Poynard et al. (1989, 1991); Tabakoff et al. (1988); Skinner et al. (1984) and others mentioned in the text. The test become less simple and of routine going down in the table. The values of γGT and MCV are combined

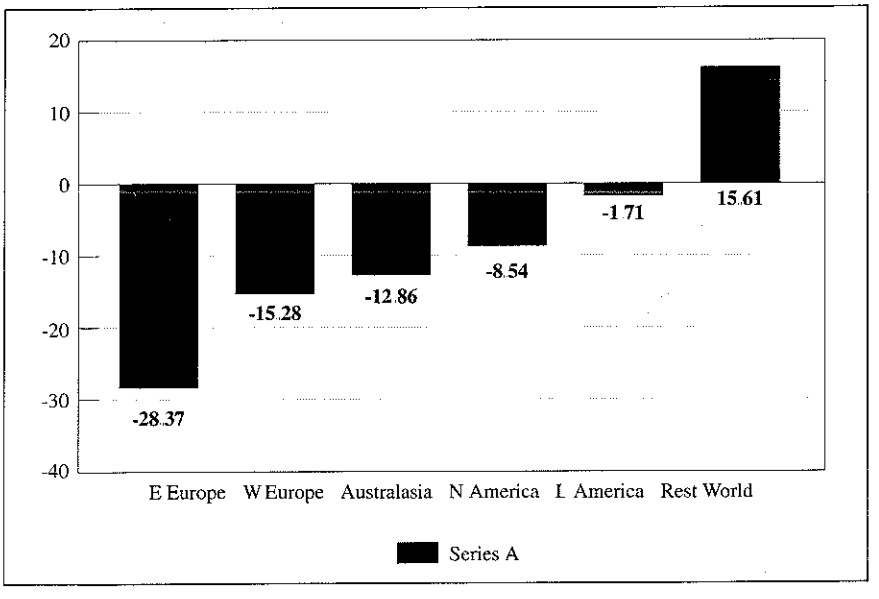
ready said, the increase in weight. The alcohol addict tends to increase his weight if, simultaneously, he doesn't develop a certain kind of refusal of food, for psychological reasons, from alcoholic gastritis or anorexia due to drunkenness. This phenomenon very often, and especially in women, generates still more anxiety, which may encourage even more drinking.

It is not easy, but an accurate examination of nutrition must reveal the discrepancy between the absorption of calories indicated by the patient, which certainly doesn't include those of alcohol or at least not the right amount of alcohol, and the calories that can be worked out according to the amount of increased weight and the maintenance of it. Thus, any form of obesity that is inappropriate for the patient's age, his absorption of calories, or his social situation must raise the suspicion of surreptitious alcohol consumption, as there is a psychological refusal of obesity.

In the second place, we have to remember rough, sudden, frequent, and not apparently justified changes of mood. Sudden changes from depression into euphoria, bizarre irritability, insomnia, carelessness, mutability of feelings and interests, alternating performance at work. Similar to these are affective instability, frequent quarrels in the family, crises of jealousy, separation from the partner for uncertain, confused, apparently insignificant reasons, and the status of chronic anxiety produced by alcohol consumption. Furthermore, acts of violence, lustfulness, coming to blows, and disputes are often due to alcohol.

Very important are those situa-

Fig. 2 - Change in alcohol consumption - Percentage change 1980-1988



World Drinks trends 1990 Ed. 1

tions that are marked by chronic pains (neoplastic, radilytic, etc.), which may have induced the patient to alcohol misuse.

Often the suspicion of alcoholism is also justified in elderly people. Sometimes the symptoms are confused with Alzheimer's disease, and consequently the doctor feels himself authorized not to do anything. Alcoholism begins especially after retirement or also after the death of the partner or because of economic difficulties. Very important are symptoms like repeated traumas, fractures, accidents, and ecchymosis, which apparently are without reason, explained in a confused way, or reported with uncertain memory.

Indicative as well appear problems at work, in relationships to other people, frequent changes of home, economic difficulties which are not justified in terms of the expenditures and the patient's style of life.

" Persistent gastritis " is a symptom that is often undervalued by the doctor or not brought into relation with alcohol. The symptomatology shows anorexia, nausea, often in the morning, vomiting, epigastric ache, and stomach burning. Often the case history doesn't point to risk factors and alterated eating habits, and gastroscopy indicates atrophic as well as erosive gastritis. It is a particularly important and frequent symptom, above all an early and visible symptom in patients who drink on an empty stomach early in the morning, typical behaviour for alcohol addicts.

The alcoholic gastritis combined with esophagitis and regurgitation esophagitis is often mistaken for the peptic disease and treated like that. Alcohol consumption often leads to events of acute pancreatitis or, in the absence of gall stones, to hyperglyceridaemia and other risk factors. If we consider that alcohol misuse is the most frequent cause of pancreatitis (according to Scuro e Coll., biliary calculus and alcohol are the cause of pancreatitis in 64% of the cases), we can't exclude immediately this suspicion only because the patient denies alcohol consumption during the days that preceded the pancreatic event. Even if it occurs rarely, we have to mention cardiac arrhythmies that are not caused by coronary or pharmacological risk factors which often can't be treated or are refractory to treatment.

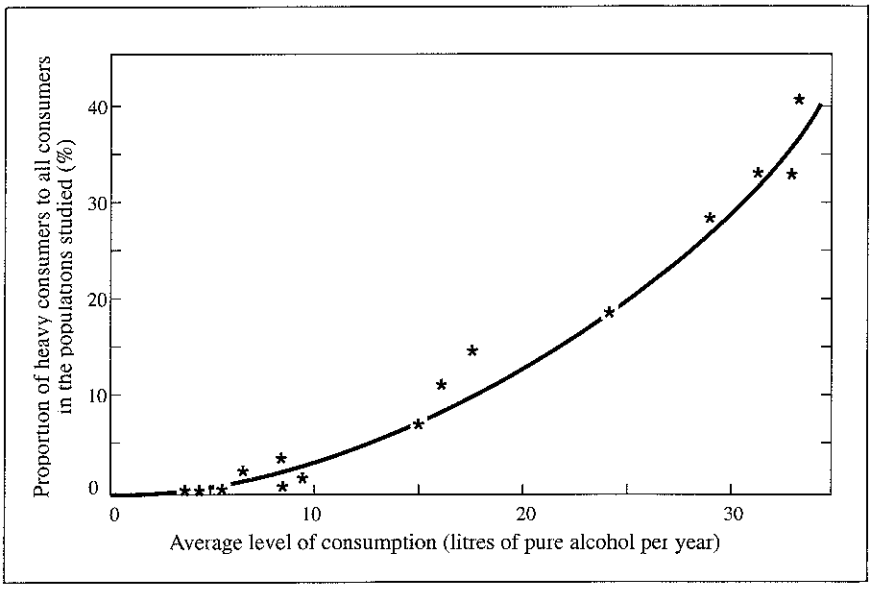


Fig. 3 - Relation between the average level of alcohol consumption and the proportion of heavy consumers (i.e., persons with an average daily consumption exceeding 0.1 litre of pure alcohol), as found by empirical methods in different population samples. Each point represents a population sample result.

The origin, nearly always, lies in an alcoholic metabolic myocardiopathy that can appear as a reduced tolerance of effort, dyspneas due to efforts, edemas, and predecompensation in the absence of valvular heart defects, in an early age for myocardiumsclerosis, in the absence of coronary disease, that can be cured in hospital in a few days or also at home (where one can't drink secretly or when is afraid and obviously controls himself for a certain period).

The skeletal musculature may also be affected. There may appear myopathy or polymyopathy, with a drop in working performance, asthenia, lack of tolerance of effort, appearing capriciously and variably, with high CPK values in the absence of other metabolic, genetic, and pharmacological causes, with sharp recovery as a result of apparently non-specific therapies, like vitamic therapies and measures that impede the patient's access to alcohol for a certain period.

Very important and significant appears resistance to sedative, tranquillizing, and hypnotic drugs. The patient takes pills in order to sleep, but as the pills are not efficient, he has to take more of them or change the quality of pills.

This fact becomes even more important if we consider that the personality of alcoholics tends to seek " chemical " comfort in situations of anxiety, difficulties, insomnia, and conflicts. He seeks solace in alcohol, but he seeks it with the same psychological impulse also in medicine. This is why the patient feels in a very unpleasant way the lack of effect or the rapidly diminishing effect of sedatives and shows this without hesitation.

Sometimes a patient who comes to the doctor complains of sexual impotance or irregular sexual behaviour, but he doesn't attribute this to alcohol. Often there occur precocious ejaculation, disorder in erection, difficulties in starting, keeping up, or completing sexual intercourse.

The excitation phase, as a result of certain doses of alcohol, may be normal or well-developed. Often people use alcohol to overcome or to react to sexual difficulties, which are nearly always generated by psychological factors, but it is alcohol itself that generates impotence. If somebody complains of sexual difficulties, we must always have the suspicion of an alcoholic etiology. A detailed conversation with the partner may help to assess the etiology because the partner is often

more inclined to talk with the doctor in order to solve the problem.

Important is the appearance of macrocytic persistent anaemia that is not justified by known causes. This kind of anaemia differs from the macrocytic anaemia of cirrhotics, even if in the laboratory it may seem superimposable. This phenomenon is due to marrow toxicity generated by alcohol and malnutrition. It may therefore appear precociously and show signs of refractoriness, followed by surprising reversibility and relapsing, as happens in cases of myopathy, cardiopathy and arrhythmias due to alcohol.

In women, multiple abortions, still-born fetuses, babies born with a low weight and multiple fetal malformations can certainly raise the suspicion or be an indication of alcoholism. It is called " fetal alcohol syndrome, " one of the most important causes of malformations (microcephalia, micrognatia, mental handicap) and still-born fetuses, a syndrome that professor Jérome Lejeune is going to explain in this conference.

Also arterial hypertension may indicate an alcoholic etiology. Recent epidemiological studies showed that a daily consumption of more than 30 gr. of alcohol could be a cause of essential hypertension. That's why in every case of " essential " hypertension an accurate alcohol case history has to be done.

Similar to a brief crisis of abstinence, but with few symptoms, is the trembling in the morning that disappears, as family members often relate, when the patient returns from the newspaper kiosk, from the bathroom, or from somewhere else (where, of course, he drinks alcohol secretly).

We also need to mention, finally, diarrhea due to colitis and malabsorption, the Dupuytren disease of contracted palms and rosacea (rosacea) acne.

When the suspicion of alcoholism has arisen, some simple laboratory test have to be carried out. A specific biochemical marker would be essential for prevention, early diagnosis, and monitoring of treatment in case of alcohol abuse. This marker should be easily measured in the peripheral blood and indicate alcohol misuse before the alcohol causes harm to the organs and tissues. Unfortunately, all the different available markers have not shown sufficient diagnostic reliability. They are effective, instead, if used in combination with clinical data, questionnaires, etc.

There are a number of both simple and routine and more complex tests that have to be effected in appropriate facilities. The most common and widely used tests are the following ones:

1) Plasmatic GGT (Gammaglutamiltransferase): it increases according to the quantity of alcohol consumption and provides early indications before a hepatic defect occurs (Rosalki and Zilva, 1987). It may also prove high for other reasons. Its sensitivity varies between 50 and 90%. The specificity exceeds 80% (Whitehead and others, 1978). It is a good test also for monitoring alcohol abstinence.

2) Transaminase (SGOT): it has a very restricted diagnostic value, the specificity is about 40%, the sensitivity about 80%: but its value is closely bound up with hepatic defects (Nemesanski et al., 1981).

3) Alkaline phosphatase: it has a low specificity and an even lower sensitivity.

4) MCV: the medium corpuscular volume is elevated in case of alcohol misuse and drops when consumption is reduced. The sensitivity varies between 45% and 90% in the tested population; the specificity is about 90% (Skinner et al. 1984). Together with the GGT, it presents a very important element (Chick et al., 1981) because it doesn't refer to nutritional disorders, but to chronic alcohol consumption (Lindenbaum and Lieber, 1969).

Many other plasmatic values appear modified as a result of alcohol misuse: uric acid (Takase et al., 1985); triglycerides, especially the HDLC function (Danielsen, 1981) appear high. But all these tests give low evidence because of their low sensitivity and specificity.

5) The assessment of the alcohol level in the blood is of great importance if it is done immediately after alcohol consumption, but in case of chronic misuse there is only slight usefulness.

There are a series of other useful tests: from the dosage of tissue antibodies to IgA and lipoproteines. They may give further information, but as there is little access to them in real life, there has not been a large application.

Table 6 summarizes these laboratory tests.

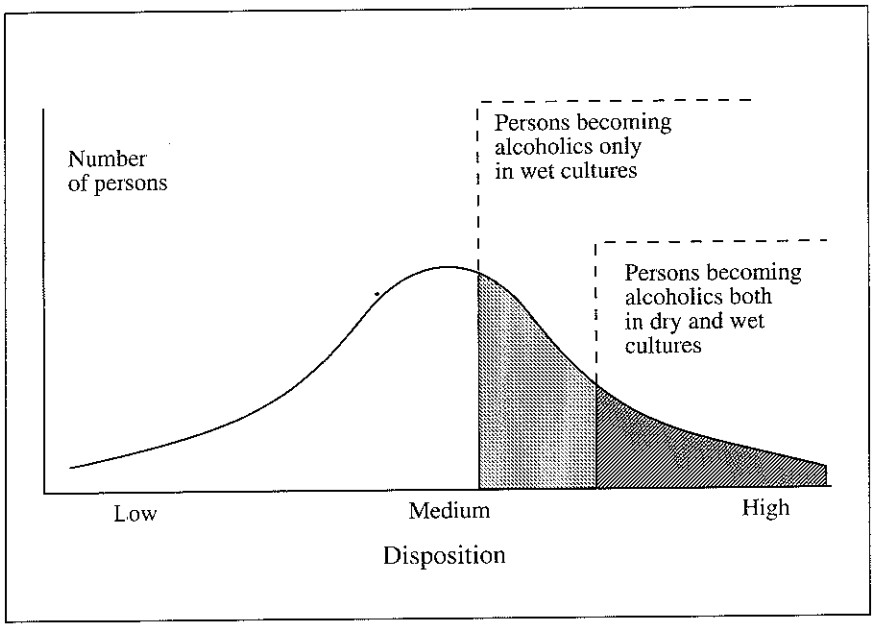


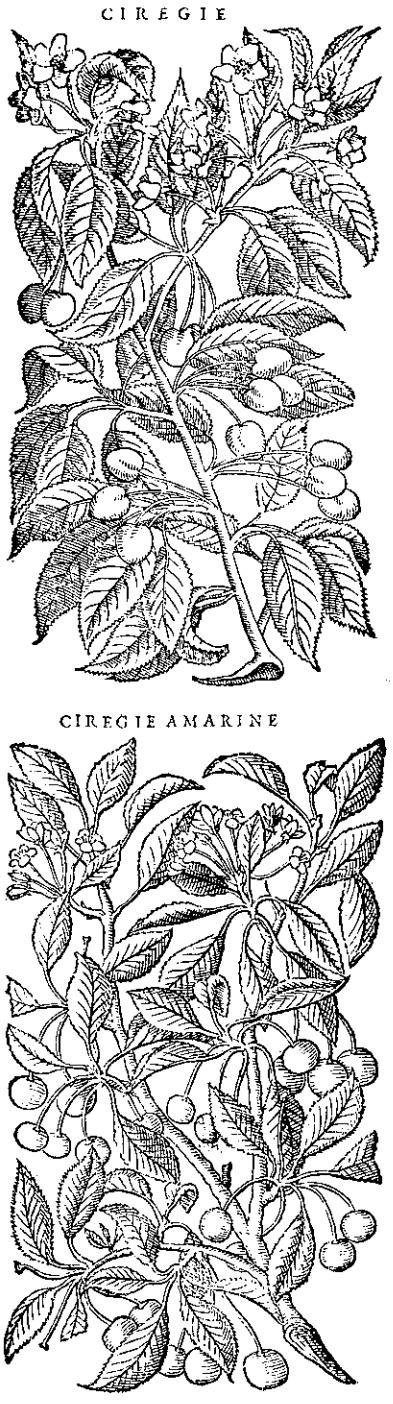
Fig. 4 - Hypothetical distribution of the population according to disposition for problem drinking.

The diagnostic value of the tests increases notably if different tests are performed simultaneously. The GGT results, put together with the MCV test done on patients with general health problems, has shown a correct identification of alcoholics in 91% of the tested, whereas the GGT test alone indicated only 72%, and the MCV test, 78% (Chick et al., 1981).

However, the predictive value of these data depends on the prevalence of alcoholism. Figures 1a and 1b show this datum. If the test is done by the doctor on one of his patients and if the prevalence of alcoholism in his patients is about 2%, then the positive test gives a diagnostic probability rate of 16%: this means that only 16 out of 100 patients tested in the same way are alcohol addicts. If the same doctor carries out the tests after sufficient questioning and examinations, after having got several misleading answers, but also many elements that indicate alcoholism, in these kinds of patients at high risk or with high probability, the prevalence of alcoholism could hypothetically be about 20%, or even higher if the tests are done in specialized consulting rooms or alcohol addict centres. In this case, the positivity of the same test has a much higher diagnostic probability, about 70%, and the negativity virtually tends to exclude alcohol addiction in the patient (Levine, 1990). A recent study done by Clark (1983) confirms the utility of the tests only in cases of high prevalence.

Summing up, to detect alcoholism, the doctor's consultation, the use of questionnaires, and laboratory tests are of great but differing utility according to the goal aimed at. It is obvious that questionnaires offer the best method to control the spread of alcoholism in the population. The widespread use of questionnaires has supplied reliable results, and various valid conclusions at a clinical and social level have been drawn.

The doctor's consultation is a fundamental element in real life, because the patient nearly always contacts the general practitioner when health problems arise, at least in the initial phase. Identification in hospital is also very important, if, according to several A.A., from 30% to 50% of the patients show alcohol related problems. The laboratory tests complete the general research, and at least the most simple ones can be easily carried out in the consulting room and even better in hospital, where it may also be useful to do the more complex tests. However, the main problem is to have always the suspicion of alcohol misuse. The physician in his consulting room as in hospital has to put the most appropriate questions in the most adequate way for the patient's personality.



Alcohol misuse is an extremely serious, continuously growing social disease. It can be discovered more efficiently if we start from the assumption that every patient may have problems of alcohol misuse because the habit of alcohol consumption is so widespread. It doesn't seem that up to now, at least in prevention, a correct medical approach has been prevailing. Somebody indulged his whim in stating that the current conferences about alcoholism, full of research results and multidisciplinary discussions, don't show any new elements, because 100 years ago the same statements were already being made and the same topics were discussed (Malcolm, 1991). There is evidence for this thesis if we compare the topics of the National Temperance Congress of Manchester in 1895 with those discussed in the Congresses of Liverpool in 1971 and 1990. The results overlap, the conclusions seem copied, and even the social events are identical (the climax of the reception by the mayor at Town Hall).

We hope that this important international meeting will mark an improvement in quality and contribute effectively to reversing the trend towards growing alcohol abuse.

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Bibliography

1. AASLAND O G., *31th International institute on the prevention and treatment of alcoholism* the International Council on Alcohol and Addictions - Lousanne (CH) - Centro Italiano di Solidarietà, Roma (I), 2-7 june, Roma 1985. Tongue A & Tongue eds) 1985; vol I: 108-140

2 *American Psychiatric Association* Diagnostic and statistical manual of mental disorders, Washington, DC, 1987.

3 AVOGARO A , GNUDI L., MARAN A., e coll. *Metabolic effects of alcohol,* Alcologia 1991; 3: 15

4 BARTOLI E. *Fisiopatologia e clinica degli squilibri idroelettrolitici* La medicina internazionale 1976; 23: 1.

5 BUTTOLO R , MODONUTTI GB. *L'alcolismo in Italia.* Fed Med. 1984; 37: 724

6 BUTTOLO R., MODONUTTI GB , *Nell'ottica della prevenzione e del controllo dei problemi alcolcorrelati.* In: Albano e coll. " Alcool e apparato digerente " - Ed. Martinucci - Mediserve 1990: 311.

7 BUTTOLO R , MODONUTTI G B. *Nell'ottica della prevenzione e del controllo dei problemi alcolcorrelati.* In: Albano o e coll. " Alcool e apparato digerente " - Ed. Martinucci - Mediserve 1990: 339

8 CADORET R.J., O'GORMAN T.W , TROUGHTON E , et al - *Alcoholism and antisocial personality. interrelationships, genetic and environmental factors.* Arch gen. psychiatry 1985; 42: 61.

9. CHICK V., KREITMAN N , PLANT M *Mean cell volume and gamma glutamyltransferase as markers of drinking in working men* Lancet 1981; 2: 1249.

10. CLARK P., HOLDER R., MULLET M., WHITEHEAD T.P., *Sensitivity and specificity of laboratory tests for alcohol abuse* Alcohol & alcoholism 1983; 182 : 261

11 Criteria Committee National Council on alcoholism *Criteria for the diagnosis of alcoholism* Am j psychiatry 1972; 129: 127.

12 DANIELSSEN B., EKMAN R., FEX G., Changes in plasma high density lipoprotein in chronic male alcoholics during and after abuse. Scandinavian Journal of clinical laboratory investigation 1978; 38: 113

13. FARINATI F., BURRA P., SALVAGNINI M., NACCARATO M. *Hepatocellular carcinoma, alcohol and cirrhosis* Alcologia 1991; 3: 31

14. FLEMING M.F., BARRY K.L., A three-sample test of masked alcohol screning questionnaire alcohol & alcoholism 1991; 20: 81.

15 GASBARRINI G., *The physician and alcohol: a troubled relationship.* Alcologia 1991; 3: 11.

16 GOODWIN D W., *Alcoholism and genetics. the sins of the fathers.* Arch gen psychiatry 1985; 42: 171.

17. KISSIN B. *The use of psychoactive drugs in the long term treatment of chronic alcoholics* Ann N Y Acad Sci 1975; 252: 385

18 KISSIN B., BEGLEITER H., *Treatment and rehabilitation of the chronic alcoholic* Eds. " The biology of alcoholism " Plenum press, New York 1977; 5: 53

19. KISSIN B., PLATZ A *Psychopharmacology. a review of progress, 1957-1967* D.H Efron, ed), public health service publication n° 1836- Washington 1968: 835

20 KRISTENSON H., ØHLMIN H , HULTEN-NOSSLIN M.B., TRELL E., HOOD B., *Identification and intervention of heavy drinking in middle-age men. results of follows-up of 24-60 months of long-term study with randomized controls.* Alcoholism: clinical and experimental research 1983; 7 2.: 203.

21 LEVINE J., *The relative value of consultation, questionnaire and laboratory investigation in the identification of excessive alcohol consumption* Alcohol & alcoholism 1990; 25: 539.

22 LINDENBAUM J., LIEBER G.S. *Hematological effects of alcohol in man in absence of nutritional deficiency.* New England Journal of Medicine 1969; 281: 333.

23 LØBERG T. *Alcohol misuse and neuropsychological deficits in men* Journal of studies on alcohol 1980; 41 1 : 119

24 MALCOM MM T., *A century of alcoholism conferences. unchanging themes* Alcohol & alcoholism 1991; 20: 5

25 MAYFIELD D , MCLEOD G., HALL P. *The cage questionnaire. validation of a new alcoholism screening instrument* Am J Psychiatry 1974; 131: 1121.

26 MERIKANGANS K.R., LECKMAN J.F., PRUSOFF B.A , et al., *Familial trasmission of depression and alcoholism* Arch. gen. psychiatry 1985; 42: 367.

27. MODONUTI G B., *Dimensioni del fenomeno e aspetti attuali dell'alcolismo in Italia, Alcolismo - opinioni a confronto* - Aosta 1/2/89, pp. 43-73

28 ORREGO H., BLENDIS L., BLACK JE., KAPUR BM., ISRAEL Y., Reliability of alcohol intake based on personal interview in a liver clinic. Lancet 1979; 2: 1354

29 PAPOZ Q., WARNET J-M., PEQUINOT G., ESCHWEGE E., CLAUDE G.R., SCHWARTZ D., *Alcohol consumption in a healthy population.* Gamma-glutamyl transferase activity and mean corpuscolar volume, Jama 1981; 245: 1748.

30. POKORNY A D., MILLER B.A , KAPLAN H.B., *A shortened version of the michigan screening test* Am j psychiatry 1972; 129: 342.

31 POYNARD T., AUBERT A., BEDOSSA P., ABELLA A., NAVEAU S., PARAF F., CHAPUT JC *A simple biological index for detection of alcoholic liver disease in drinkers* Gastroenterology 1991; 100: 1397

32. POYNARD T., BEDOSSA P., ABELLA A , NAVEAU S , PARAF F., LEMAIGRE G., CHAPUT JC *Comparaison de la valuer de la concentration sérique de l'apolipotéine a1, de la laminine et du PIIIP pour le diagnostic de fibrose hépatique chez les buveurs.* Gastroenterol Clin Biol 1989; 13: 182

33 RANKIN JGD, ARMSTRONG *AIM Alcoholic liver disease: the problem of diagnosis* Alcoholism clin exp res 1978; 2: 327.

34. ROSALKI SB, ZILVA JF , *Serum gamma glutamyltransferase and alcoholism* Lancet 1977; 2: 1183.

35 Royal college of physicians. *The medical consequences of alcohol abuse: a great and growing evil* Tavistock publication, London 1987

36. SCHUCKIT M A., *Genetics and the risk of alcoholism* Jama 1985; 254: 2614

37 SCHUCKIT MA, IRWIN M., *Diagnosi of alcoholism,* Medical clinics of North America 1988; 72: 1133

38. SKINNER H , HOLT S., SCHULER R., ROY J., ISRAEL Y., *Identification of alcohol abuse using laboratory tests and a history of trauma* Annals of internal medicine 1984; 101: 847

39. TABAKOFF B , HOFFMAN PL, LEE JM, et al. *Differences in platelet enzyme activity between alcoholics and nonalcoholics.* N engl j med 1988; 318: 134.

40 TAKASE S., TAKADA A., ISUTSUMI M., *Biochemical markers of chronic alcoholism* Alcoholism 1985; 2: 405

41. TRUITT FB, WALSH MJ , *The role of biogenic amines in the mechanism of action of antialcohol drugs.* In " proceedings of the first annual alcoholism conference of the NIAAA " - DHEW Publication NIH-74-675, Washington D.C. 1973; 100

42 VESTERBERG O., PETREN S., SCHMIDT D., *Increased concentrations of a transferrin variant after alcohol abuse* Clinica chimica acta 1984; 141: 33

43. WALLACE P., Haines A., *Use of questionnaire in general practice to increase the recognition of patients with excessive alcohol consumption.* British Medical Journal 1985; 290: 1949.

44. WEST L J , *Alcoholism Ucla school of medicine concerence* Ann Intern Med 1984; 100: 405.

45 WHITEHEAD TP., CLARKE CA., WHITFIELD AGW., *Biochemical and hematological markers of alcohol intake* Lancet 1978; 1: 978

JAMES CASSIDY

Alcohol and Marginalization: Sociological and Pastoral Aspects

I. Introduction

It is always a great pleasure to be here in Rome at the feet of St. Peter. All roads certainly do lead to Rome. It's also a great honor to be able to participate in this Congress sponsored by the Pontifical Council for Pastoral Assistance to Health Care Workers under the direction of His Eminence Fiorenzo Cardinal Angelini. I want to express my congratulations to Cardinal Angelini on his new title and role.

This Pontifical Council has made a great contribution to health care throughout the world by means of these annual international conferences at which an outstanding topic is chosen to be discussed. I think this was especially evident in the 1989 meeting on AIDS, "To Live: Why?" One of the significant issues in health care throughout the world is the care of AIDS patients. It is so important for the Church to be able to speak out about this disease so that the world knows that, no matter how someone acquires the disease, the Church will always be there to care for the sick and needy. I am very proud of the role of the Church in the care of AIDS patients throughout the world and, most especially, in the United States.

Since the Catholic Church is the single largest provider of health care in the world, these meetings are also very important because the conclusions impact everyone worldwide and make a contribution to health care for the future. It is most fitting, therefore, that this year the Council has chosen drug and alcohol addiction as a topic because it is such a tremendous problem for health care throughout the world.

The Catholic Church has always had a very good attitude toward the use of alcohol in the sense that it has recognized that alcohol is a gift of God that must be properly used at all times. This is true in all cultures of the world. As to the history of the use of alcohol, in 1954 Forkes reported that wine was in use in Mesopotamia sometime prior to 3000 B.C. The oldest group of laws, known as the Code of Hammurabi of Babylonia around 1700 B.C., regulated the sale of wine and forbade riotous assembly in the house of the wine seller. Medicinal use of alcohol dates back over 4,000 years, and the majority of our cultural groups make use of some kind of alcoholic beverage in one context or another. That alcohol has had many different effects on society is very apparent. Unfortunately, however, the misuse of alcohol has also been a tremendous problem at different times throughout the centuries.

II. Impact of Alcoholism on Society

Numerous investigations over the years in different countries of the world have demonstrated quite convincingly that man's lifestyle and all of society have been profoundly affected by the abuse of alcohol. Even the financial structure of society has been deeply affected by alcoholism. In a pure business sense, alcohol and drug abuse have cost the United States economy more than $100 billion annually. Alcoholism alone results in about 500 million lost workdays each year. On a positive note, however, we are pleased to see so many business corporations in the United States becoming aware of this problem and really trying to do something about it.

Alcoholism has had a profound effect on man's physical and mental health, and on his mode of dying. There is significantly higher mortality among alcoholics from cirrhosis of the liver, pneumonia, accidents and suicides. Many studies have found higher than expected rates of death from cancer of the upper digestive and respiratory tracts, heart disease and vascular lesions of the central nervous system.

There is extensive literature on alcoholism and suicide. The self-destructive aspects of chronic intoxication are referred to as suicidal behavior. Significant similarities in the life history of suicidal persons and alcoholics have been noted. Studies of suicide have reported higher rates among alcoholics.

In health care institutions we know that a good number of patients are alcoholics — the numbers run from 30% to 50% of hospital patients at a given time in many hospitals in the United States. We also know that alcoholics tend to require hospital care more frequently than the normal population. In Russia one of the greatest health problems is alcoholism.

Related to the problem of health care and hospitalization is the area of injuries. It seems apparent that alcoholism is a major contributor to all types of injuries. In the case of drunk driving, alcoholism has led to many accidents, many of which end in fatalities. People who are problem drinkers, teenage experimenters with alcohol, and young people involved in heavy social drinking are certainly over-rep-

resented in regards to automobile accidents. In New York City alone, almost all cases of death in auto accidents have shown evidence of alcohol abuse.

In a 1961 study of deaths in a County of New Jersey, USA, Wilson Brandy found that 31% of the homicide victims had been drinking before being killed. In New York City, recent statistics show that 7 out of 8 homicide victims had been under the influence of alcohol. From a very personal contact in the City of New York, I have been told that it is very rare to come across a case of a fatal accident in which alcohol is not involved in some way or another. Putting an instrument such as a car in the hands of an alcoholic leads, all too often, to mortalities.

In our society we see many factors that explain the higher prevalence of violent crime among alcoholics as compared to nonalcoholics. In a 1958 study done in Philadelphia, Pennsylvania, it was found that alcohol was present both in the offender and in the victim in 43.5% of homicides. In a 1965 study in Chicago, Illinois, it was found that intoxicants were present in 53.5% of homicidal scenes according to police records. In Finland, alcohol-related murder and intentional manslaughter cases now equal a combined 70%. We see then the effect of alcoholism in society in general, its effect on mortality, crime, health care, business, and our economy.

III. Impact of Alcoholism on the Individual

We all are aware of the impact of alcoholism on the individual in a very general sense. This tremendous problem can effect one's physical health, family life, financial situation, ability to work at an occupation, and even propensity for crime. But, more than this, each individual comes with a background and personality which may make him susceptible to alcohol and its abuse. The person who seems to need the most support and help is one whom we very often refer to as "on the edge of society." In psychiatry, different terms have been used to define this type of individual. This can be an individual who is

SFERRA CAVALLO



able to function only on a low level, since alcohol-related problems may cause physical difficulties, brain damage, emotional upset, or some other weakness in personality. In order to help such an individual function more appropriately, professional and family support is critical.

The problem with a "borderline" individual is that the individual may be aware that something is inherently lacking. He may then be attracted to alcohol or drugs. Such individuals are referred to as having addictive personalities, as they often become addicted to substances while looking for fulfillment in life and the ability to function on a more normal level. A major problem with these types of people is that they can function, albeit on a lower level, take care of themselves, and do many good things. When they turn to alcohol or drugs, however, they become very self-destructive. This type of person searches for euphoria in alcohol and, as a result, often becomes addicted. It is very difficult to help such people to regain the level of functioning that they once possessed.

I believe that these are the people that suffer the most. If they didn't have this addiction, they would be able to function as good members of society. Once they become addicted to alcohol, however, they often become so self-destructive that it ruins their whole life.

Although some of these people have mental difficulties such as brain damage, personality disorder or schizophrenia, they must be prevented from going over the edge, from loosing complete control and contact with reality, and from self-destruction.

We see examples of this type of self-destruction particularly in the homeless in the United States and in many of the major cities of the world. The homeless live on the city streets and beg for their existence. They all are on the edge of society, unable to care for themselves. Alcoholism is a major factor that has led to their circumstances

IV. Pastoral Care of People With Mental Health Problems Often Related to Alcoholism

Pastoral care is so very important in dealing with people with

problems of alcoholism and mental health. Studies have shown that about 70% of the people who have difficulties with mental illness approach their local pastor before anyone else. The pastor holds a certain trust in their eyes which makes it easier for them to come to him to discuss a specific problem, mental or otherwise. It is essential, therefore, that the pastor has an awareness of the difficulties and problems that are involved in mental illness.

If the pastor is sensitive enough to realize the person's problems and has enough background and training to be able to recognize the difference between a simple, passing difficulty and a real serious psychotic episode, he can be of great help, supporting the individual through his difficulties. It is also important that the pastor is able to make the proper referral so that the person can get appropriate help. If the pastor misses the signs that are given to him and doesn't listen attentively to his parishioner, he may just pass it off, and the individual will then go away without the needed help. It may then be months or even years before the person is again able to approach someone for assistance.

Pastoral care and the training of people in pastoral care is critical because it's often the first line of defense in preventive mental health. It is important that the pastor has the insight and sensitivity to recognize problems, to be able to give support where it is necessary, and to be able to make the proper referrals so that the person can get the appropriate help and care.

If there is one area that could make the greatest impact on people with mental health difficulties, it would be in training pastors. They do not necessarily have to be counselors or therapists, but they need to be able to recognize the problems of the people that they serve and to be able to appropriately respond to their needs. They must have the ability to distinguish between serious illness and a minor problem. They must also know the appropriate facilities and community resources in order to make good referrals.

More time should be spent in seminaries and training schools to ensure that the pastors who work in parishes dealing with people are conscious of the responsibility they have for the people in trouble who come to them. Since they are going to be the first person that most of the parishioners will come to with their difficulties, they must be able to fully understand and make an evaluation of their problems. Pastoral care must be given not only to the individual with the problems, but to the family and those around him who may be able to give him the support and strength to follow through with any referral that may be made.

Pastoral care has developed substantially over the years. It has become an avenue through which a pastor fulfills his role and his mission of being a true shepherd to his flock.

V. Pastoral Care of the Alcoholic

Among those who come to their local pastor with personal difficulties are particularly those with problems of alcoholism. The priest or the local pastor is probably the first one in many communities to recognize the person with such a problem. Either he sees it through his own observations or he is approached by different members of the family, relatives or friends of the alcoholic. These people trust their pastor and look to him for help and intervention with the alcoholic. It is very important, therefore, that the pastoral care training for the pastor teaches him to deal not only with the special problems of the alcoholic individual, but with the family and community affected.


LIMONE

The positive attitude of the Church towards alcohol and its use can be very helpful. There has always been an awareness in the teachings of the Church that the abuse of alcohol is wrong and that it can be a sin against the moral law. One has responsibilities not only to oneself, but to others, especially to families. It would be morally wrong to abuse alcohol to such an extent that it affects one's own physical condition, one's own family, or one's relationships with other people.

In the past, it was common in the United States and other countries that after a bout with alcoholism, a person would make a pledge and a solemn promise that he would not touch alcohol again at all for a certain amount of time. The person would pray together with the priest for the grace to keep this pledge. Very often this form of promise could be most helpful. For example, in Ireland, the Pioneer movement in honor of the Sacred Heart helps people to make a promise that they will not take any liquor for life. Now, I think we need to look deeper into the causes of alcoholism and try to establish a more positive program to assist the person to deal with the problem and to realize that alcoholism is a disease and that it has to be treated as a disease.

The pastor must be able to make referrals so that the alcoholic can get the proper help. This is particularly important in the United States and in many other countries, where the local parish is a place in which the local chapters of Alcoholics Anonymous groups meet on a regular basis. In many parishes in the United States, the local alcoholic groups meet in the basement or a room in the Catholic Church. It is significant that the Church, in a very positive way, provides a good

setting and support for the alcoholic so that he can overcome his difficulties. The work of Alcoholics Anonymous has been the most successful approach to the problem of alcoholism. The group approach to alcoholism is helpful because it relies on the basic principle that there is a God who is above us all, on whom we can rely, and that we cannot do it by ourselves.

The pastoral role is unique because of the nature of the priest's relationship with his parishioners. They come to someone whom they trust and to whom they reveal their soul.

The pastor has an extraordinary challenge in working with an alcoholic. He must always be supportive and sensitive to his followers and must be able to give the assistance and the strength needed. The pastor must also be kind and understanding to the family of alcoholics, because they, too, need the support and strength that only the Church can give.

If there were one thing that one could hope to come out of this conference it would be a real effort to make the clergy aware of the problems of alcoholism. After making them aware of the problems, a real effort would be needed to train all the clergy in how to deal with the alcoholics and alcoholism. It would be most helpful to initiate the training with the techniques of Alcoholics Anonymous and show the clergy what the parish can do to help set up such groups if they do not yet exist and to support those which already exist. This could be most helpful in many Catholic countries that have a large number of alcoholics. The first line of defense in dealing with alcoholism in many parts of the world is the local clergy. This Pontifical Council, which is so very active, could help in developing and coordinating these efforts throughout the world, especially in the newly emerging nations.

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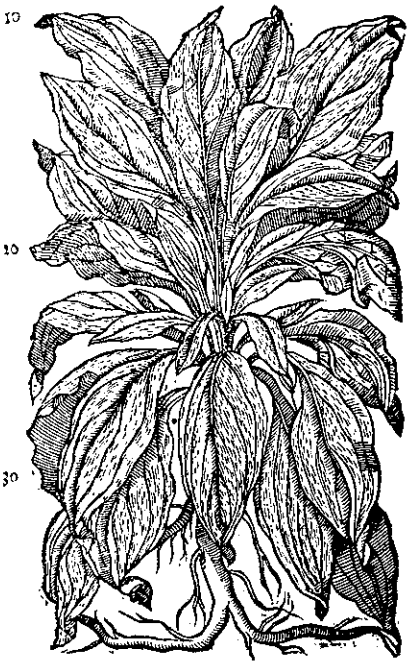


FREDERICK K. GOODWIN

Alcohol, Drugs, and Mental Illness

Historical Perspective

The coexistence of mental disorders and alcohol and drug abuse and dependence has been referenced anecdotally for centuries, yet an accurate assessment of the extent of comorbidity among psychiatric disorders has come only recently. "Comorbidity" is a term used to describe additional clinical entities that may occur during the course of an index disorder. It also suggests the relative risk of developing one disorder if one already has another diagnosed disorder (Masur & Cloninger, 1990).

The existence of comorbid diagnoses, particularly alcohol and drug use with mental disorders, constitutes a major public health concern. It complicates the diagnosis, prognosis, and treatment of both disorders, and suggests the need for improved training of mental health professionals and addiction treatment specialists as well as greater public awareness of the extent and social costs of mental and addictive disorder comorbidity. Today, more and more patients, in a variety of treatment settings (i.e., general medical, speciality mental health, and substance abuse) are being dually diagnosed with mental and addictive disorders. These patients stay longer and require more intensive care during their hospitalizations. The impact of the problem strongly suggests the need to focus research attention on the nature, course, and treatment of comorbid diagnoses.

In this paper, first, we review crucial methodological issues in research on comorbidity. Then, we review current epidemiologic data regarding mental and addictive disorder comorbidity in the U.S. and the sequence of such comorbidity. Against this backdrop, we focus specifically on comorbidity of bipolar I and substance use disorders, with particular emphasis on biological and genetic contributions. Finally, we suggest some future directions in the areas of treatment of and research on comorbidity.

Methodological Issues

As the study of comorbidity of mental and addictive disorders is a blossoming field, there are still numerous methodological problems with which to contend. Although many of these problems are shared by all research in psychopathology, the process of studying the comorbidity of two or more disorders in the same individual magnifies the challenge. Problems include: variable definitions of disorders; the effects of the disorders on one another; ascertainment problems; lack of attention by researchers to subtyping of disorders; and exclusion criteria used in many studies. We discuss each of these below.

1. Variable definitions of substance abuse/dependence diagnoses

One of the most significant problems encountered in the literature on comorbidity of mental disorders with substance abuse and dependence is the variable definitions used for substance use diagnoses. Older studies particularly, but even more recent ones, do not differentiate between "abuse" and "dependence." Many others do not use either of these terms, referring instead to "drinking problems," "drinking to excess," or "moderate vs. heavy drinking." This lack of operationalization makes comparison between studies extremely difficult. Even when criteria have been operationalized and standardized, study comparisons can be difficult, since different diagnostic systems have different thresholds for diagnosis.

2. Impact of disorders on one another

As is true of other comorbid conditions, substance use and mental disorders impact on one another, thereby complicating diagnosis. The relationship between two disorders is multifaceted. Each may modify the course, precipitate the onset, predispose the individual to, or mask the symptoms of the other disorder (Goodwin & Jamison, 1990). These problems compound the difficulties in accurately interpreting what investigators claim to be representative comorbidities between disorders occurring within the same individual.

3. Ascertainment (cognitive) difficulties

Compounding diagnostic problems is the fact that prolonged use of alcohol or drugs can lead to ascertainment problems in pinpointing the occurrence of mental illness. This is particularly problematic with recurrent disorders such as bipolar and unipolar disorders, panic disorder, and obsessive-compulsive disorder. Past episodes typically are difficult to ascertain even without

the complication of a comorbid substance use disorder. In the instance of manic-depressive illness, for example, hypomanic episodes often are not remembered by patients or family as a clinical state, but may be recalled as productive periods without depression (Goodwin & Jamison, 1990) If the bipolar disorder is compounded by alcohol or drug abuse or dependence, the difficult ascertainment of these past episodes may be even harder

4. Reliance on clinical samples

Most of the data in existing comorbidity studies come from clinical patient samples. As Berkson demonstrated, because people who have more than one condition tend to present for treatment frequently, comorbidity estimates based on clinical samples tend to be high (Berkson, 1946). Elaborating on this point, Wesner (1990) suggests that " the presence of two disorders finally impairs the patient enough to seek help from a specialist. " The National Institute of Mental Health (NIMH) Epidemiologic Catchment Area (ECA) Study (Regier et al., 1984) is therefore an extraordinary asset both to the general field of epidemiology and to our understanding of comorbidity. It is a massive survey of over 20,000 persons in the United States in both institutional and community settings. Findings from the ECA study will be discussed throughout this paper

5. Inattention to subtypes

Of all the diagnostic and methodological problems associated with comorbidity studies, perhaps the most important is that few investigations separate relevant subtypes among the major mental disorders, types of substance users, and drugs of choice. This bias is perhaps most notable among the mental disorders. For example, among effective disorder patients, the bipolar-unipolar distinction is made in only a handful of studies and the bipolar I- bipolar II distinction is made in even fewer. Few studies have looked at subtypes of anxiety disorders, schizophrenia, or alcohol or drug abusers.

One recent alcoholism typology, Cloninger's (1987) Type I- Type II distinction, warrants mention, as it shows heuristic value both for alcoholism and comorbidity studies. Type I alcoholics have a later age of onset (after age 20-25), a lower genetic loading, and are characterized by frequent loss of control when drinking and guilt and fear about alcohol dependence. Type II alcoholics have a much earlier age of onset (before 20-25), spontaneously seek alcohol, and frequently fight or are arrested when drinking. Another key distinction between Type I and Type II alcoholics is that Type II alcoholics appear to use alcohol as a stimulant whereas Type I alcoholics use it for anxiolytic purposes. An intriguing demonstration of this differential use of substances by early- and late-onset alcoholics is found in a recent study of female alcoholics by Glenn & Nixon (1991) They found that Type II alcoholics had a significantly increased rate of comorbid cocaine abuse compared to Type Is, and that Type I alcoholics had a significantly increased rate of benzodiazepine abuse compared to Type II alcoholics.

Researchers attempting to validate this distinction have concluded that separating alcoholics by age of onset of problem drinking provides the most discriminating evidence between the two groups. Roy et al. (1991) and Buydens-Branchey et al. (1989) report that early-onset alcoholics have significantly higher rates of drug abuse, bipolar disorders, panic disorder, antisocial personality characteristics, and suicide attempts, than late-onset alcoholics. A revised listing of the differentiating characteristics of Type I and Type II alcoholism are presented in Table 1. Unfortunately, no study of psychiatric patients has yet investigated the comorbid prevalence of Type I and Type II alcoholism. We think that the Type I-Type II distinction has much heuristic value and hope that it will be the subject of continued study.



Comorbidity Findings
Mental and Addictive Disorders

In studying comorbidity, it is important that we take note of a number of factors which, on the surface, appear to have tremendous impact on the prevalence of comorbidity. First, cohort effects have been noted in almost all of the major psychiatric disorders. That is, the age of onset of mental illness has decreased over the past several decades. This is particularly true with affective disorders (Klerman et al., 1985), and alcoholism (Cloninger et al., 1988). The implications of this shift are important if these disorders are found to precipitate or predispose to one another. In support of this argument are findings that persons diagnosed with major psychiatric disorders have an earlier age of onset of those disorders if they also have a comorbid drug or alcohol diagnosis (Powell et al., 1982).

The second noteworthy finding, which is perhaps complementary to the first, is the increased rate of abuse of drugs and alcohol dating from the 1960s in the U.S. Compared with the 1960s, more addictive and potent drugs are being used intensively at present by fewer but more vulnerable users (Drake et al., 1991). Figure 1 depicts the decreasing age of onset of samples of patients with bipolar disorder, super-

imposed on the increasing rates of cocaine abuse across that same time period. Although this does not imply a causal relationship between the two, it presents testable hypotheses about the predisposing nature of drug abuse to the manifestation of mental disorders in vulnerable individuals.

Deinstitutionalization also has played an important role in the development of comorbid diagnoses among general mental health patients. The deinstitutionalization that occurred in the United States beginning in the mid 1960s was for many thousands of people with severe mental illnesses, extremely positive. But for a sizeable percentage of patients, deinstitutionalization failed. In the absence of adequate community support, many of these patients worsened clinically; many became homeless or encountered difficulties that eventuated in imprisonment. In addition, a new generation of people at risk for mental disorder has grown up during this period. For many, easy access to alcohol and drugs and, for some, a biologically-based vulnerability to drug use, may help to explain the high prevalence of comorbid conditions found among them. Studies have found that regular use of street drugs among young persons with severe mental illnesses tends to worsen the clinical condition, often prompting the need for hospitalization or leading to entanglements with the criminal system (Safer, 1987).

All of these findings contribute to our knowledge and understanding of the etiology, course and treatment of comorbid mental and addictive disorders.

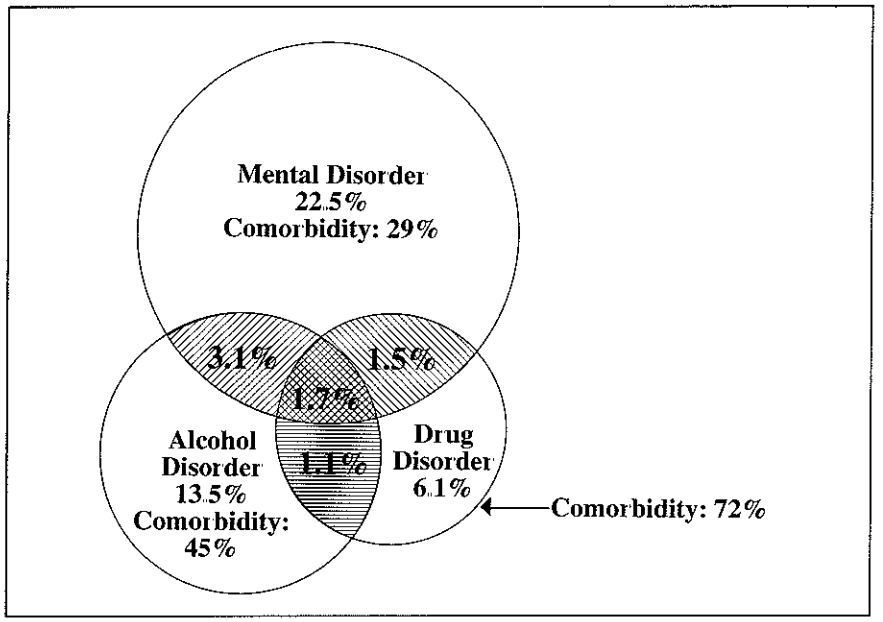
Recent data from the ECA study (Regier et al., 1990) provide an excellent epidemiological perspective on the comorbidity of mental and addictive disorders. Regier et al found lifetime rates of mental, alcohol, and drug disorders of 22.5%, 13.5%, and 6%, respectively. Of those 22 percent who have a diagnosable mental disorder, 29 percent also met criteria for drug or alcohol use disorders. Specifically, 22 percent have a comorbid diagnosis of drug abuse or dependence, and 15 percent have a comorbid diagnosis of alcohol abuse or alcohol dependence. Analyzed from the perspective of substance abuse disorders, the results are even more staggering. For example, the proportion of persons who have ever been diagnosed with alcohol abuse or dependence who also have a diagnosable mental disorder is 37 percent. Twenty-one percent of those persons with mental disorders have a comorbid diagnosis of drug abuse or dependence. Finally, of those who have a diagnosis of drug abuse or dependence, 53 percent also meet criteria for a mental disorder, and 47 percent meet criteria for alcohol abuse or dependence. These data give but a cursory, yet startling, glance at the scope of comorbidity.

While these data indicate extensive comorbidity between mental and addictive disorders as a whole, aggregate figures actually obscure the enormous comorbidity among the most prevalent psychiatric diagnoses and substance abuse and dependence. That is, persons with particular diagnoses (e.g., bipolar disorders, schizophrenia) have extremely high rates of comorbidity with alcohol and drug use compared to other diagnoses, a fact hidden when all diagnoses are combined.

To this point, Table 2 presents the ECA comorbidity findings by individual disorders ranked according to the odds ratio (OR) and percentage. The OR signifies the degree to which a comorbid disorder occurs in conjunction with an index disorder, beyond what would be expected by chance alone. For example, the OR of 7.9 associated with bipolar I disorder indicates that persons with this disorder are almost 8 times more likely to have a comorbid substance use disorder than are persons without a diagnosis of bipolar I disorder. These extremely high ORs suggest that having a mental disorder significantly elevates one's risk for developing a comorbid substance use disorder. Epidemiological recognition of comorbidity as well as for planning and implementing prevention and treatment strategies for both.

The sequence of comorbidity has important implications for both research and treatment. Analyzing ECA data on the comorbidity of depression and anxiety with drug and alcohol disorders, Christie et al. (1988) found that the cooccurrence of these disorders was 2.6 times more likely to begin with depression or anxiety. Unfortunately, schizophrenia, antisocial personality disorder, or subtypes of affective or anxiety disorders were not specifically broken down in their analysis. Other investigators, however,

Fig. 1 - Lifetime Prevalence of Comorbid Men and Addictive Disorders in the U.S.*

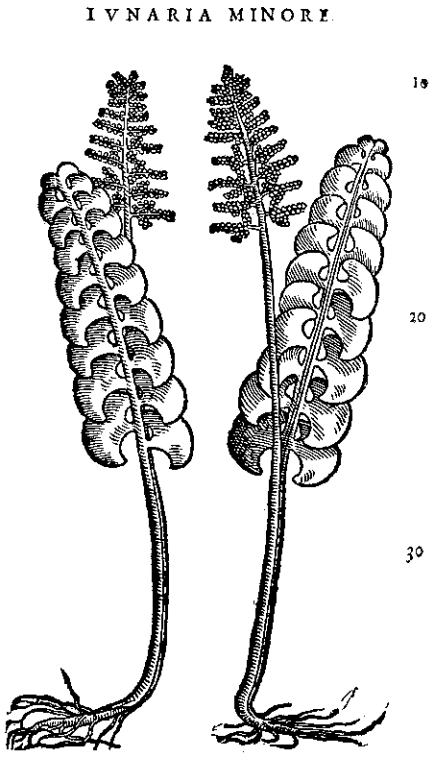


* Combined Community and Institutional 5-Site ECA Data, Standardized to U.S. Popular

have indicated that the majority of anxiety, schizophrenic, and affective disorders comorbid with substance abuse disorders begin with the mental disorder (e.g., Mueser et al., 1990; Wesner, 1990).

For researchers, the data on sequence invite a series of questions: Do the disorders share some underlying pathophysiology? Do they precipitate or predispose to one another? Is one's alcohol or drug abuse or dependence an early manifestation of an incipient mental disorder? If left unchecked, does early alcohol or drug use lead to the development of a mental disorder? From a treatment perspective, the finding that mental disorders often are more likely to occur first offers promise that early, targeted psychiatric intervention may curtail the extent or even completely prevent the onset of a large percentage of substance use disorders. All too frequently, however, treatment specialists in one field know little about the other. Thus, the high prevalence of comorbid psychopathology and substance use disorders sends a strong message that we as professionals cannot ignore.

All of these questions are just beginning to be investigated, and we later propose some future research directions in which answers might be found. First, however, in order to provide a somewhat more in-depth understanding of the scope of comorbidity, we consider bipolar I disorder, the psychiatric disorder with the highest rate of comorbid substance use (Table 2).



Bipolar Disorder

As it happens, the comorbidity of bipolar disorder and substance abuse and dependence is one of the best-studied comorbidities. Kraepelin originally noted that one quarter of his male manic-depressive patients were alcoholic. Eight studies from the 1970s and 1980s using standardized diagnostic criteria reported similar results, reporting an average of 31 percent of bipolar patients with coexisting alcoholism. The ECA study, with its clinical and community scope, reported that 43.6 percent of bipolar patients had a DSM-III diagnosis of either alcohol dependence (27.6%) or abuse (16%). Thus, the risk for alcohol abuse or dependence is more than 5 times greater among persons with bipolar disorder than those without that diagnosis. The few studies that separated bipolar I and bipolar II patient groups shows similar rates of alcoholism in both groups. For example, ECA data indicate that 46 percent of bipolar I patients had a comorbid alcohol diagnosis, as did 39 percent of bipolar II patients. Given that rates of bipolar disorder are increased among Type II alcoholics, and the bipolar is an early onset diagnosis, it stands to reason that much of the comorbid alcohol abuse in bipolar patients is most likely early-onset with its accompanying correlates, cited above.

With regard to drug abuse, persons with bipolar disorders are at more than eight times the risk for drug abuse or dependence compared with persons without bipolar disorders. Thirty-four percent of bipolar patients have a comorbid diagnosis (Regier et al., 1990). Here the difference between bipolar I and bipolar II disorders was more pronounced. Forty-one percent of bipolar I patients also had a drug use diagnosis, approximately double the rate among bipolar II patients (21%). Finally, the presence of mixed states (i.e., the simultaneous occurrence of manic and depressed states) seems also to be an indication for higher than average rates of substance abuse by bipolar patients (Himmelhoch et al., 1976).

Treatment: Findings and Implications

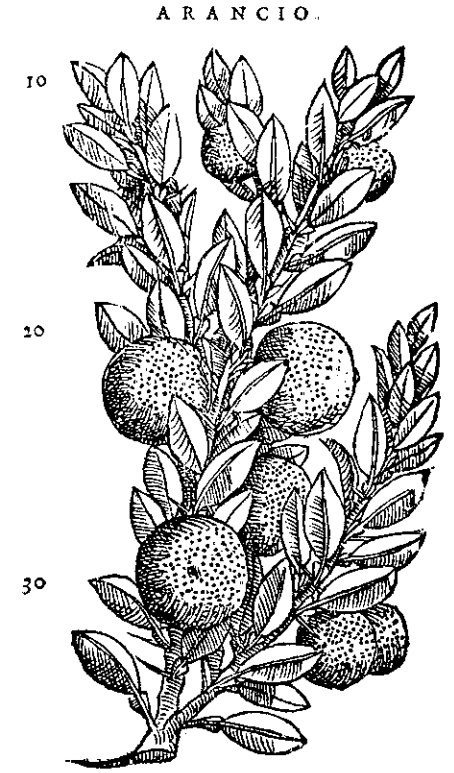
Recent data indicate that one-third of patients in general psychiatric settings and more than half in inpatient psychiatric settings have comorbid substance use disorders (Galanter et al., 1988). Recall Wesner's (1990) comment that it may be the presence of two syndromes that ultimately impairs the patient enough to seek treatment. This may well explain the high rate or comorbidity in treatment settings. Still, the majority of patients with comorbid mental and addictive disorders are seen in treatment settings other than specialty mental health facilities (Narrow, Regier, et al., in press.). This speaks to the

need for further training of persons who typically possess limited expertise in treating one of these disorders, much less both. For that matter, mental health professionals and substance abuse practitioners alike are rarely trained in the recognition and treatment of dually-diagnosed patients.

Drake et al. (1991) have noted that persons with mental disorders and comorbid substance abuse present numerous difficulties for the mental health professional. The severity of their symptomatology is increased, and they are much more likely to be hospitalized. They also manifest more disruptive behavior such as aggression, impulsivity, and suicidality. While the presence of suicidal ideation and behavior is of great concern in treating any patient, the comorbid patient presents a particular danger for the clinician. Data (e.g., Regier et al., 1990) indicate that persons with mental disorders who are also substance abusers are at much greater risk for attempting suicide compared with those patients who do not have that comorbid diagnosis. Therefore, suicidality, as well as these other features of comorbid diagnoses, need to be taken into consideration when working with this population.

Another issue of importance in treating the comorbid patient concerns the accuracy of psychiatric diagnosis in that patient. Brown & Schuckit's finding that initially elevated depression scores of alcoholics dropped into the normal range 3 or 4 weeks after detoxification (1988), for example, argues persuasively for giving substance abusers a waiting period, post-detoxification, before assessing them for a dual diagnosis. Interventions aimed at treating the symptoms of substance abuse should not be postponed, however, but should be begun during the waiting period.

Indeed, this issue of initiating substance abuse treatment pending a definitive diagnosis of a comorbid condition raises a critical point — i.e., when treating the patient with comorbid psychiatric and addictive disorders, it is essential to treat each syndrome in its own right. One cannot assume that treating the psychiatric disorder will alleviate the substance abuse or vice versa. Both must be treated aggressively since their effects on one another can be so devastating. Many (e.g., O'Sullivan et al., 1988) recommend treating the substance abuse first, even if it is secondary to the psychiatric disorder, because of its effects on social behavior and treatment compliance. Non-compliance with both pharmacological and psychotherapeutic treatment occurs frequently among patients with comorbid substance use disorders, and can have serious ramifications for the mental health of the patient; in the past, disapproval by self-help organizations such as Alcoholics Anonymous of "reliance" on psychiatric interventions has discouraged AA members from seeking help and subtly endorsed noncompliance with prescription drug regimens on the part of those who obtained such care. A recent positive development has been growing acceptance by organizations such as AA of the use of medications for psychiatric disorders and the formation of some AA groups specifically for patients with dual diagnostic disorders.



Possible Explanations and Future Directions

Several general ideas have been presented in the literature that strike us as relevant to studying the nature of comorbidity. For example, Merikangas (1990) has outlined a method to study the etiology of comorbid diagnoses using family history. She suggests that there may either be a causal association between the two disorders in that one may predispose to the other, or they may both be manifestations of the same underlying etiologic factor. It would, therefore, be essential to study the family prevalence of both disorders under investigation to ascertain the nature of the relationship, if indeed it is genetically motivated. It is important to note here that direct interview of family members rather than recapitulation of family history by one family member is essential to providing accurate information on comorbidity.

Another hypothesis which might be adapted to the study of comorbidity takes into account genetic vulnerability and stress-induced onset of disorders. Post et al. (1986)

Table 1. Distinguishing Characteristics of Two Types of Alcoholism

Characteristic Features	Type I	Type II
Age of onset	After 25	Before 25
Genetic Loading	Moderate	Heavy
Alcohol use for anxiolytic effects, with tolerance/dependence	Frequent	Infrequent
Spontaneous Alcohol-Seeking for Euphoric Effects	Infrequent	Frequent
Fighting and arrests when drinking	Infrequent	Frequent
Antisocial Characteristics	Infrequent	Frequent
Drug Abuse	Infrequent	Frequent
Depression (BP > UP?), Suicide Attempts	Infrequent	Frequent
Novelty seeking	Low	High
Harm avoidance/Reward Dependence	High	Low

Adapted from Cloninger (1987).

proposed a kindling hyopothesis of affective disorder, stating that repeated exposure to a stressor in a genetically vulnerable individual produces a sensitivity which may lead to the spontaneous generation of an episode. Using this line of reasoning, it is possible that alcohol or drug abuse may be a sufficient stressor to precipitate the onset of a mental disorder in a vulnerable individual. For example, referring to Figure 1, perhaps the increased use of cocaine by vulnerable individuals who previously might not have used it because it was not as readily available) has led to the increased early onset of bipolar disorder. Further, borrowing from Merikangas, if mental and addictive disorders are simply manifestations of a similar pathophysiological state, perhaps stress is likely to precipitate the onset of the disorder to which the individual is most vulnerable, which then precipitates the onset of the other disorder.

Lending further support to these hypotheses are data indicating earlier onset of mental disorders in general, and specifically when they are comorbid with substance use disorders. Additionally, recent data mentioned earlier indicate an increased use of alcohol and drugs by adolescents and young adults.

Finally, a recent study of kindling in rats indicates that younger animals are more susceptible to the effects of kindling, and that this effect lessens as the animals grow older. If alcohol and drug use is such a stressor, the mechanism for prevention or delay of the onset of many mental disorders might be within our reach. For just these reasons, innovations such as Cloninger's Type I-Type II distinction might provide valuable information on the type of substance abuse that coexists with mental disorders. At present, however, many hypotheses await testing.

Mental illness and substance abuse historically have been among the least understood and highly stigmatized of all medical conditions. Through our science, we have made great strides in our capacity to treat these disorders and, in turn, to educate the public about them. Neither our accumulating knowledge nor our clinical skills, however, should diminish our appreciation of the extraordinary strength of will required to overcome an addictive disorder or of the remarkable benefits of a compassionate community in caring for persons with mental illnesses. As scientists and physicians, we should both take pride and be humbled by our role as God's instruments in

Table 2. Comorbidity of Mental Disorders with Any Substance Use Disorders Rank Order of Mental Disorders by Odds Ratio

	% with substance	
Axis I Disorders	abuse or dependence	O.R.
Bipolar I	61	7.9
Bipolar II	48	4.7
Schizophrenia	47	4.6
Panic Disorder	36	2.9
Obsessive Compulsive Disorder	33	2.5
Dysthymia	31	2.4
Unipolar Depression	27	1.9
Phobia	23	1.6
Personality Disorders		
Antisocial Personality Disorder	84	29.6

caring for these most vulnerable of his children.

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References

BERKSON J.: Limitations of the application of fourfold table analysis to hospital data. *Biometric Bulletin* 2:47-53, 1946.

BROWN SA, SCHUCKIT MA: Changes in depression among abstinent alcoholics. J Studies on Alcohol 49:412-417, 1988.

BUYDENS-RRANCHEY L, BRANCHEY M, NOUMAIR D: Age of alcoholism onset I: Relationship to psychopathology. *Arch Gen Psychiatry* 46:225-230, 1989.

CHRISTIE KA, BURKE JD, REGIER DA, RAE DS, BOYD JH, LOCKE BZ: Epidemiologic evidence for early onset of mental disorders and higher risk of drug abuse for young adults. *Am J Psychiatry* 145:971-975, 1988.

CLONINGER CR: Neurogenetic adaptive mechanisms in alcoholism. *Science* 36:410-416, 1987.

CLONINGER CR, REICH T, SIGVARDSSON S, VON KNORRING A-L, BOHMAN M: Effects of changes in alcohol use between generations on inheritance of alcohol abuse. In: RM ROSE, J BARRETT, eds: *Alcoholism. Origins and Outcome*. New York: Raven Press, 1988 pp 49-74.

DRAKE RE, MCLAUGHLIN P, PEPPER B, MINKOFF K: Dual diagnosis of major mental illness and substance disorder: An overview. *New Directions for Mental Health Service* 50:3-12, 1991.

GALANTER M, CASTANEDA R, FERMAN J: Substance abuse among general psychiatric patients: Place of presentation, diagnosis, and treatment. *Am J Drug Alcohol Abuse* 14 211-235, 1988.

GLENN SW, NIXON SJ: Applications of Cloninger's subtypes in a female alcoholic sample. *Alcoholism: Clin Exp Research* 15:851-857, 1991.

GOODWIN FK, JAMISON KR: *Manic-Depressive Illness*. New York: Oxford University Press, 1990.

HIMMELHOCH JM, MULLA D, NEIL JF, DETRE TP, KUPFER DJ: Incidence and significance of mixed states in a bipolar population. *Arch Gen Psychiatry* 33:1062-1066, 1976.

KLERMAN GL, LAVORI PW, RICE J, REICH T, ENDICOTT J, ANDREASEN NC, KELLER MB, HIRSCHFELD RMA: Birth-cohort trends in rates of major depressive disorder among relatives of patiens with affective disorder. *Archives of General Psychiatry*, 42:689-693, 1985.

MASUR JD, CLONINGER CR: Comorbidity of anxiety and mood disorders: Introduction and overview. In: JD MASUR, CR CLONINGER, eds: *Comorbidity of Anxiety and Mood Disorders*. Washington, DC: American Psychiatric Press, 1990, pp. 3-12.

MERIKANGAS KR: Comorbidity of anxiety and depression: Review of family and genetic studies. In: JD MASUR, CR CLONINGER, eds: *Comorbodity of Anxiety and Mood Disorders*. Washington, DC: American Psychiatric Press, 1990. pp. 331-348.

MUESER KT, YARNOLD PR, LEVINSON DF, SINGH H, BELLACH AS, KEE K, MORRISON RL, YADALAM KG: Prevalence of substance abuse in schizophrenia: Demographic and clinical correlates. *Schizophrenia Bulletin* 16:31-56, 1990.

O'SULLIVAN K, RYNNE C, MILLER J, O'SULLIVAN S, FITZPATRICK V, HUX M, COONEY J, CLARE A: A follow-up study on alcoholics with and without co-existing affective disorder. *Br J Psychiatry* 152:813-819, 1988.

POST RM, RUBINOW DR, BALLENGER JC: Conditioning and sensitization in the longitudinal course of affective illness. *Br J Psychiatry* 149:191-201, 1986.

POWELL BJ, PENICK EC, OTHMER E, BINGHAM SF, RICE AS: Prevalence of additional psychiatric syndromes among male alcoholics. *J Clin Psychiatry* 43:404-407, 1982.

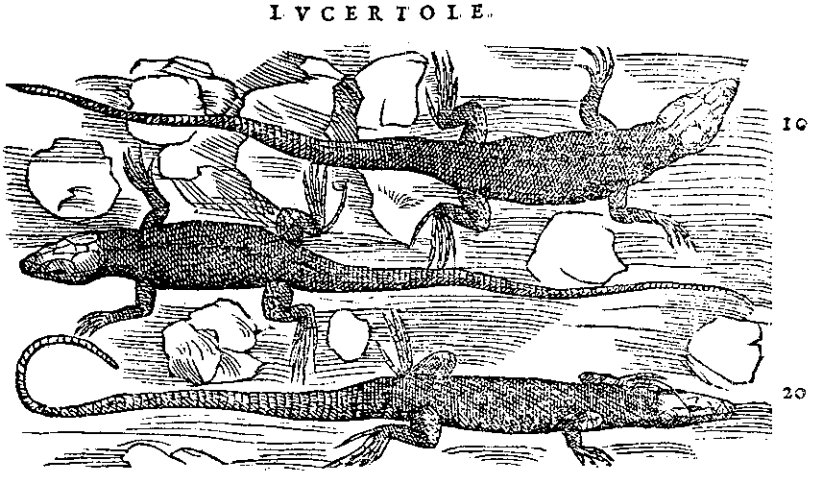
REGIER DA, MYERS JK, KRAMER M, ROBINS LN, BLAZER DG, HOUGH RL, EATON WW, LOCKE BZ: The NIMH Epidemiologic Catchment Area program: Historical context, major objectives, and study population caracteristics. *Arch Gen Psychiatry* 41:934-941, 1984.

REGIER DA, FARMER ME, RAE DS, LOCKE BZ, KEITH SJ, JUDD LL, GOODWIN FK: Comorbidity of mental disorders with alcohol and other drug abuse: Results from the Epidemiologic Catchment Area (ECA) study. *JAMA* 264:2511-2528, 1991.

ROY A, DEJONG J, LAMPARSKI D, ADINOFF B, GEORGE T, MOORE V, GARNETT D, KERICH M, LINNOILA M: Mental disorders among alcoholics: Relationship to age of onset and cerebrospinal fluid neuropeptides. *Arch Gen Psychiatry* 48:423-427, 1991.

SAFER DJ: Substance abuse by young adult chronic patients. *Hosp Comm Psychiatry* 38:511-514, 1987.

WESNER RB: Alcohol use and abuse secondary to anxiety. *Psychiatric Clin North Amer* 13:699-713, 1990.



FLOYD E. BLOOM

The Nature of Drug Addiction and Scientific Research

The Experimental Analysis of Addictive Diseases

Today I wish to consider first the biological steps by which drugs of abuse can lead innocent victims into the drug-dependent state, (for references see Koob and Bloom, 1988) and then to look briefly at two additional phases critical to the problems of drug addicted subjects: 1) those changes which occur with multiple episodes of drug exposure that produce the states of altered drug sensitivity termed tolerance and sensitization; and 2) the residual long term changes that persist despite prolonged periods of drug abstinence and contribute to the phenomena of drug craving.

Hierarchical Levels of Research in Neurosciences

The strategies used to analyze addictive drugs in the CNS may be molecular, cellular, or behavioral. The intensively exploited molecular level has been the traditional focus for characterizing drugs that alter behavior. Molecular discoveries provide biochemical probes for identifying the appropriate neuronal sites and their mediative mechanisms, as well as pharmacological tools to verify them.

Research at the cellular level determines which specific neurons and which of their most proximate synaptic connections may underlie the effects of a given drug. The cellular level of addictive drug analysis exploits both molecular and behavioral leads to determine the most likely brain sites at which drug-induced behavioral changes can be analyzed, and provides the opening clues as to the nature of the drug-neuron interactions in terms of interneuronal communication, i.e., excitation, inhibition, or more complex forms of synaptic interaction (see Koob and Bloom, 1988 for references). Inferences as to the locus of the cells or cell systems essential to an addictive drug's action can also be provided by direct manipulations (lesions or stimulations) of specific brain sites.

Research at the behavioral level centers on the integrative phenomena that link populations of neurons into extended specialized circuits, ensembles, or more pervasively distributed "systems" that accomplish tasks, such as sensing, moving, or "reinforcing." Such work includes the complex but still poorly understood mechanisms of learning, reward, and reinforcement. This three-part strategical hierarchy's main deficiency is the degree to which it blurs the currently most obscure element, namely the means by which events on the behavioral level can be linked to discrete cells and circuits, and obviously vice versa.

Three Major Drugs of Abuse under Investigation

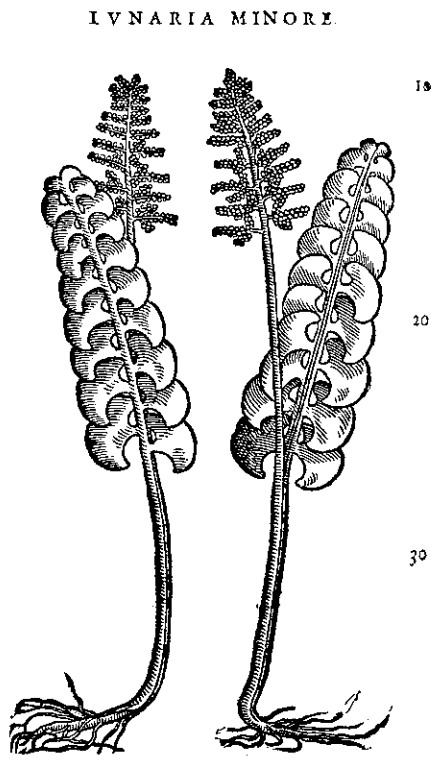
Substantial progress has been made in analyzing the molecular and cellular actions of three major types of abused drugs: opiates, such as heroin and morphine, psychostimulants, such as cocaine and amphetamine, and alcoholic beverages (ethanol). The present state of research has pinpointed the most likely neurotransmitter systems and their circuits for opiate and psychostimulant addictions. In the case of ethanol, the least potent of these three drug types but probably the most widely abused, recent research has emphasized the relative importance of several possible transmitters. While those three drugs remain the centerpiece of drug abuse research at the experimental level, substantial inroads have been made to begin to provide the initial beach-head for future attacks on Phencyclidine, Nicotine, Benzodiazepines, and Tetrahydrocannabinoids.

Effects on Drug-Naive Brain

The major collection of data on the effects of drugs of abuse in experimental animals pertains to the acute effects of these drugs on drug-naive subjects. In the case of the opiate drugs, the range of sites and mechanisms at which these drugs may act was constrained experimentally by the discovery of the endogenous opioid peptides that now provide the cornerstone of opiate neuropharmacology. This research clarified the genetic origins of the opioid peptides, produced detailed maps of the neuronal pathways containing one or another of the three opioid peptide genes, and established the basic effects of opiates and opioid peptides on neurons throughout the cns. Within these mapped opioid peptide containing neuronal circuits, major attention has been focussed on the nucleus accumbens, where micro-injections of a non-diffusible analog of the opiate antagonist drug, naloxone, will effectively quench opiate self-administration in rats and other experimental animals.

The neurobiological mediator of cocaine (as well as amphetamine psychostimulants) appears to be the neurotransmitter dopamine. According to the currently favored molecular view, it is the ability of cocaine to inhibit dopamine re-uptake which thereby augments dopaminergic neuron activity through prolongation of the effects of neuronally released dopamine and leads to the reinforcing effects of the drug. Dopamine normally depresses the spontaneous activity of neurons of the nucleus accumbens and also inhibits firing of VTA dopamine neurons at 3-10 fold greater potency than in nucleus accumbens. These data suggest that when dopamine neurons are active, the dopamine they release in the presence of cocaine will have greater effects on reducing dopamine cell firing than on dopamine released into the terminal fields within the accumbens. While it is an extreme oversimplification, chemical destruction of the dopaminergic terminals within the nucleus accumbens is sufficient to quell cocaine self-administration in rats, but this treatment does not disrupt heroin self-administration.

The previous two examples indicate the importance of a neuronal template in defining the basis for the molecular and cellular reinforcement actions of cocaine or opiate addiction in meaningful brain locations. No comparable template has yet been formulated for the actions of ethanol. The reinforcing properties of ethanol have been related to its ability to produce mild euphoria and to reduce perceived anxiety. Historically, investigators studying the actions of alcohol on the brain interpreted their data as if alcohol were a lipid solvent that alters the general functions of neuronal membranes by altering the lipids. However, such actions are difficult to reconcile with the relatively well-defined neuropsychopharmacological profile of ethanol, which in addition to the potentially reinforcing euphoric and anxiolytic effects, also includes changes in motor coordination, arousal, and cognition. Furthermore, highly selective cellular effects of ethanol have recently been reported: a) locus ceruleus noradrenergic neurons exhibit pronounced dose-dependent depression of responsiveness to sensory stimuli at doses lower than those required for depressing mean spontaneous discharge rates; b) dopaminergic neurons of the midbrain are also activated in response to relatively low doses of systemic ethanol administration; c) through neurochemical and behavioral tests, but not as well documented in electrophysiological tests, ethanol enhances GABA-mediated effects, and this effect may require the participation of noradrenergic receptors; d) excitatory amino acid mediated receptors may be antagonized by low concentrations of ethanol, at least in vitro, and on neurons from neonatal brains.



Adaptive Responses with Chronic Drug Exposure

An important aspect of the addictive state is the development of tolerance to the drug being abused. Animal studies have been especially useful in dissecting out the alternative explanations and sites at which tolerance may arise, and to suggest which sites and actions may merit further emphasis. Traditional pharmacological adaptations have focused on changes in the metabolism of the primary neurotransmitters, or in alterations of their receptor mechanisms. Despite much effort, only a few such changes have been reported. For example, animals dependent on morphine show accumulation of a novel form of ß-endorphin, shortened at its C-terminus; such peptides have previously been suggested to possess opioid antagonist actions. Minor changes in dopamine receptor sensitivity and in intracellular proteins that may be phosphorylated as a result of dopamine receptor activation have also been reported within the dopamine neurons and their targets after chronic cocaine exposure.

Much evidence suggests that physical dependence and tolerance generally develop and decay with a similar time course, leading to the concept that as the drug-taker reacts to the effects of the drug, adaptive "processes" are initiated to counter the effects of the drug and persist after the drug has been cleared from the brain, thereby leaving the opposing processes unopposed. The changes noted above for some opi-

ates and dopamine related changes would fall within our definition of *within* system adaptations. However, given the difficulty with which these data have been obtained, an alternate view would be that the undefined " opposing " process may not operate *within* the system manifesting the initial effects of the drug, but rather may be manifest *between* regulatory systems to restore a homeostasis akin to the drug-free situation.

Withdrawal reveals the adaptive process in operation unopposed by concurrent drug action

For example, after 10 to 14 days of ethanol intoxication, cerebellar Purkinje cells show complete tolerance: previously disrupted patterns of cell firing were now completely normal despite continued intoxicating blood levels of alcohol. However, within 90 minutes of withdrawal from ethanol, Purkinje cell firing becomes significantly disrupted; and this specific disruption can be reversed by re-establishing an intoxicating blood concentration of ethanol. The changed pattern of firing of Purkinje cells during withdrawal resembles their response to NE iontophoresis or locus ceruleus stimulation. This result suggests that LC hyperactivity may accompany ethanol withdrawal, as it does opiate tolerance and withdrawal, as substantial other data would suggest. These data are starting points from which to document the adaptive molecular mechanisms that accompany continued exposure to the drug.

The Neuroscience of Drug Craving

Perhaps the least understood behavioral phenomenon within the pharmacology of addictive drugs is the molecular and cellular basis for the long-term craving that remains once there has been apparent functional recovery from the acute effects of withdrawal. During that recovery period, it is conceptually inferrable that addictive drugs could have added negative reinforcing value simply by diminishing the adverse consequences of the withdrawal restabilization. Early experimental analysis of this effect has implicated the nucleus accumbens as a likely neural substrate for the disruptive aversive stimulus properties of opiate withdrawal. From the standpoint of efforts to define longer term " therapies " for addiction, understanding the basis for this residual craving must be an important objective in any long term effort.

A critical body of knowledge related to this remembered reinforcement remains to be gathered and at this stage can only be defined in terms of major open questions: What is the nature of drug-discrimination mechanisms by which animals can identify stimulants and sedatives? Which neuronal systems that react to these drugs are responsible for self-administered drug reinforcements and which initiate the adaptive or learned tolerance to these drugs? However, additional effort will be required to provide answers to important new questions: How do conditional environmental stimuli, associated with drug exposures, lead to apparent adaptive tolerance under environmentally specific conditions? How do those conditional effects provide longer term associations by which drug reinforcements can be recalled to initiate craving?

As with every other heuristic body of knowledge within medical biology, so, too, the advent of rigorous approaches to the behavioral phenomena of addiction generate many more questions than answers. Nevertheless, such experimental consequences are necessary to provide implementable answers to what makes some people more susceptible to addictive drug experimentation and what keeps them addicted against their volition. The records of this pioneering symposium will help define the role of biological neuroscientific research on experimental animals in that quest.

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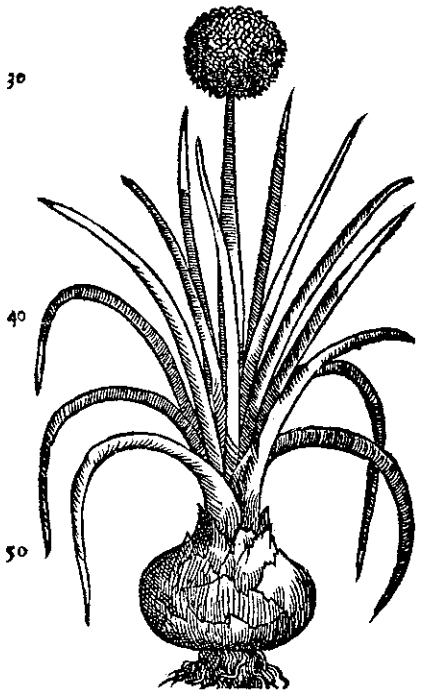
References

AGHAJANIAN, G.K., (1978). " Tolerance of locus coeruleus neurones to morphine and suppression of withdrawal response by clonidine. " *Nature* 276 (5684): 186-8

CIPOLLA CAPITATA.



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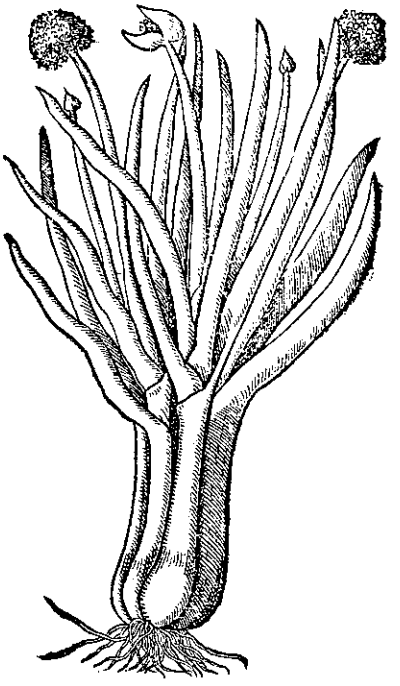


AKIL, H., WATSON, S.J., et al (1984) " Endogenous opioids: biology and function. " *Annu Rev Neurosci* 7: 223-55.

ASTON, G.J., FOOTE, S.L., et al. (1982). " Low doses of ethanol disrupt sensory responses of brain noradrenergic neurones " *Nature* 296 (5860): 857-60

BLOOM, F.E., (1987). " The emerging pharmacology of ethanol. " *Journal of Psychopharmacology* 1 (4): 227-236

BLOOM, F.E., (1988a). " Neurotransmitters: past, present, and future

KOOB, G.F. and BLOOM, F.E., (1988). " Cellular and molecular mechanisms of drug dependence " *Science* 242 (4879): 715-23

KOOB, G.F. and BLOOM, F.E., (1989). " Opponent process theory of motivation: neurobiological evidence from studies of opiate dependence. " *Neurosci Biobehav Rev* 13 (2-3): 135-40

RITZ, M.C., LAMB, R.J., et al. (1987). " Cocaine receptors on dopamine transporters are related to self-administration of cocaine. " *Scienze* 237(4819): 1219-23.

SIEGEL, S., (1982). " Opioid expectation modifies opioid effects. " *Fed Proc* 41 (7): 2339-43.

WENGER, J.R., BERLIN V., and WOODS, S.C., (1981) " Ethanol tolerance in the rat is learned " *Science* 213(4507): 575-7.

WISE, R.A., (1988). " The neurobiology of craving: implications for the understanding and treatment of addiction " *J Abnorm Psychol* 97 (2): 118-32



ANTONIA C NOVELLO

Effect of Drug Use on the Newborn

I must say that it is an absolute honor for me to be here this week —to take part in this Conference, to be asked to speak, and to have the opportunity to listen to the many esteemed professionals presenting at this forum.

The focus of this Conference— "Drugs and Alcoholism Against Life" —is such a worthy issue— one on which we must *continue to focus all of our energies* —in all countries, and in all cities. The effects are widespread and devastating— to all —to children, to adults, to entire families.

As Surgeon General of the United States, and as a pediatrician by trade, the subject of my talk this morning— "Effects of Drug Abuse on the Newborn" —is one particularly close to my heart, and one on which I have spent much of my energy throughout my entire professional life.

I am confident that during the course of this Conference many critical and controversial topics will be discussed. Issue after issue, presentation after presentation, the Conference will be filled with highly charged public discussions.

This is, of course, to be expected, and welcomed, in that the power of this Conference has been defined by its taking a direct and comprehensive aim at what we must all agree remains one of the central threats to human well-being across the globe.

I would submit that few issues are as likely to touch us more universally, or generate as much deeply felt emotion, as the effects of drug use on our youngest and most vulnerable world citizens, the newborn.

The thought of a newborn infant entering the world already having felt the effects of illicit drug use *is viewed by all as tragic*. Regardless of one's personal or political world view, regardless of one's notion of responsibility or cause, regardless of any given perception of potential pathways to solution, the reality of drug-exposed newborns fits absolutely no one's vision of a vibrant or just world. It generates compassion, empathy, and sadness. *But it also generates anger and frustration— anger for the pain and suffering the child will endure and frustration for the senselessness of maternal drug use.*

But the task before us is how we can transform these emotions into constructive and sustained action. How do we take this heartfelt sense of a profound human wrong and use it to mobilize ourselves, our communities, our governments, our societies, in order to respond?

It is my contention today that while this process depends on many factors, it will ultimately depend upon the strength of our science. Particularly because this topic generates so much deeply felt emotion, we must not only rely heavily on our empirical understanding of this issue for guidance, but also on science. Ultimately, it must inform our policies.

Therefore, a very careful reading of *what we know*, and perhaps, given the strong emotional content, more importantly *what we do not know*, is essential.

What we do know is that intrauterine drug exposure can affect the health and well-being of the newborn in a variety of ways. First *directly* and then *indirectly*.

Let us first discuss the series of effects that I will term the "*direct toxic effects*." These relate to the direct pathophysiologic impact maternal drug use has on intrauterine health, the birth process, and subsequent child growth and development. I would then like to discuss the *indirect effects*—effects that are related to the impact drug abuse has on the woman's life.

First, let me turn to the effects of maternal narcotics use on newborn outcome. To begin, it is important to recognize that most illicit drugs pass freely across the placenta during pregnancy.

Not surprisingly, there is strong evidence that intrauterine exposure to narcotics will significantly stunted fetal growth. Data from a number of studies have revealed reductions in mean birth weight as much as 1000 grams in narcotics-exposed newborns. Although this birth weight effect is undoubtedly due in some measure to the poor nutrition which is so highly associated with addiction, there is ample evidence that narcotics themselves have a direct impact on fetal growth.

The principal mechanism for this deleterious effect on birth weight appears to be both through poor intrauterine growth, expressed as low weight for gestational age, and the reduction of the length of gestation itself, namely through elevations in prematurity rates. In this regard, several studies have identified significant elevations in the rate of abruptio placenta, a serious condition in which the placenta separates acutely and at times only partially, and which can be associated with severe hemorrhage and inadequate oxygen supply to the fetus. This increase in prematurity can spell disaster for the newborn, as prema-

LIMONE.



turity can be associated with a host of serious medical complications, including respiratory distress, infections, and intracerebral bleeding.

Direct intrauterine effects of narcotics on the developing brain remain poorly elucidated. There is some evidence, primarily from animal models, that heroin can produce alterations in brain growth in association with overall stunting effects. In addition, several studies have suggested that fetal exposure to these substances may result in several subtle, but distinctive abnormalities of the nervous system.

During the 1950's and 60's, a number of reports emerged in the medical literature describing a series of serious symptoms in the infant born to narcotics using mothers.

Together referred to as the "narcotic abstinence syndrome," this complex of newborn problems includes evidence of central nervous system hyper-irritability, gastrointestinal dysfunction, respiratory distress, and a host of behaviors tied to abnormalities of the autonomic nervous system. Feeding may be significantly hindered by altered sucking reflexes, regurgitation, and increased excitability.

Altered gastrointestinal functions make dehydration and metabolic disorders common. Seizures may also occur in some of these newborns and severe sleep disorders are the rule. In general, the severity of these symptoms require medication and close monitoring.

Nevertheless, infant mortality in these infants is elevated primarily due to the effects of prematurity and a 300 percent increase in the incidence of the Sudden Infant Death Syndrome, or SIDS.

In contrast to relatively stable rates of narcotics use over the past few decades, the rate of maternal use of cocaine has skyrocketed. The immediate and powerful high it generates, and the wide availability of a relatively inexpensive form, "crack" cocaine, has generated a pattern of widespread cocaine use of catastrophic proportions in many areas of the United States and the world.

For example, the number of babies exposed to cocaine in New York City rose more than 300 percent between 1983 and 1987. More than 5,000 crack-exposed babies were born in New York City in 1989 alone. Reports from some urban hospitals have indicated that as many as twenty to thirty percent of all newborns exhibit evidence of drug exposure, with approximately 80 to 90 percent due to cocaine.

Not surprisingly, there has been an explosion of interest in the effects of cocaine on the fetus, newborn, and young child. The effects of cocaine in this regard are particularly troubling because it crosses the placenta so easily and enters all areas of the fetal body, including the brain, without restriction.

Furthermore, the "binge" pattern of use commonly associated with crack may lead to even more dramatic levels of fetal exposure.

Cocaine appears to have significant vasoconstrictive properties, whereby it shrinks the caliber of placental vessels and therefore, blood flow to the fetus. This phenomenon, in turn, seems to result in poor fetal growth and perhaps, if it occurs early in gestation, in congenital malformations. Cocaine use, particularly "binge" use, has been closely tied to a marked reduction in maternal appetite in pregnancy.

Together, this reduction in maternal appetite and the resulting reduction in the adequacy of nutrition, as well as the direct effect on placental blood flow, appear to reduce newborn birthweight, length, and significantly, head circumference, an important measure of brain growth.

Cocaine can also affect the course of labor by enhancing uterine contractility and precipitating the onset of premature labor.

In several studies, the rate of abruptio placenta was elevated as much as six times as in non-cocaine using pregnancies. As I mentioned before, the impact of prematurity, poor intrauterine growth, and obstetrical complications on the newborn can be devastating.

In addition to these effects, the newborn exposed to cocaine will exhibit a range of symptoms, including irritability, tremors, abnormal sleep patterns, poor feeding, and an array of subtle neurologic abnormalities. In general, these occur within the first few days of life and usually do not require significant medication.

This constellation of newborn signs and symptoms has raised considerable concern regarding their implications for future development. However, despite this growing alarm, there is, in fact, relatively little scientific information regarding the long term effects of intrauterine cocaine exposure. The lay press has been filled with anecdotal references to problems, children who were exposed to cocaine as infants, experience in day care settings and schools.

Deficits in socialization, in joyful play, irritability, shyness, and diminishing attention span have been described, but little hard data exists as to the extent of these problems or their specific association with cocaine exposure.

Nevertheless, despite this rather remarkable paucity of long-term follow-up data, there is sufficient evidence to conclude that the direct toxic effects of narcotics and cocaine use in pregnancy are numerous and significant, affecting crucial aspects of fetal and neonatal growth and development through a variety of mechanisms. In sum, there is sufficient evidence to force the recognition that maternal narcotics and cocaine use is harmful to the newborn and women, and must be addressed.

But if we confine the discussion of the effects of drugs on the newborn, we will, in my view, be ignoring perhaps an even more important set of effects —the "indirect" effects related to the impact of drug abuse on a woman's life, on a family, and their larger community. It is these indirect effects that are likely to prove equally as destructive as the direct toxic effects we discussed before.

Study after study reveals just how global the effects of drug abuse can be on a woman's life. Nutrition becomes inadequate, basic hygiene is often ignored, and the use of relevant services, such as prenatal care, falls dramatically. These effects may not represent direct toxic effects, but they are at least as powerful, and for the newborn, at least as destructive.

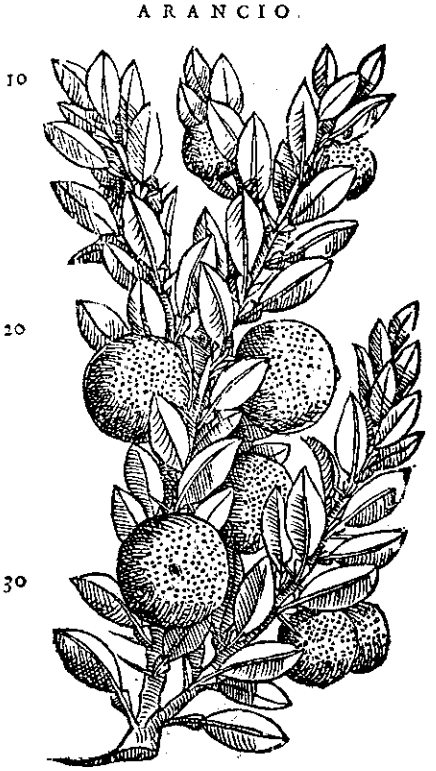
In terms of long-term outcome, there is a huge literature documenting that the quality of the infant's home environment will have overwhelming influence on the child's development and intellectual growth. Regardless of the direct toxic effects of cocaine on the newborn, the prospect of spending the first five years of life in a household ravaged by the social effects of drug addiction must be seen as the fundamental threat to the well-being of the child. And, of course, the direct toxic effects and the indirect social effects often boost one other's impact.

For example, the hyperirritability associated with the cocaine-exposed newborn is often translated into a disastrous basis for a nurturing maternal-infant interaction. These children can be very difficult to console, very difficult to feed, and for some people even very difficult to love. Here the direct effects only heighten the vulnerability conveyed by the social effects.

The fact is that it is not only difficult but also in some ways counterproductive to try to separate the direct toxicity of maternal drug use from the poverty, isolation, and destructive lifestyle that so often characterizes significant maternal drug use.

The community-wide effects must also be taken into account here as well. I don't know how many of you have spent much time in communities ravaged by drugs, but there can be no doubt that the isolation, alienation, the loss of local connectiveness, and the overwhelming lack of local service systems affects all who live there, and particularly young children. It destroys what is good even in the poorest of communities; gone is the vitality of neighborhood life, the social fabric that always ties family to family, and family to local institutions like the church, school, or health care system.

This comprehensive view of drug abuse impact on the newborn is critical if we are to realistically effect change. Few would question that the availability of drug treatment services is critical to addressing this problem. However, this comprehensive perspective makes us realize that precisely where such services are most needed, the service provision system is most likely to have been rendered completely inadequate by the overwhelming needs associated with widespread drug abuse. It also reminds us that women need drug treatment services long before they become pregnant.



The reality is that the period of greatest vulnerability for the child may be early in pregnancy, either before the woman is aware of pregnancy or certainly before services can have an effect In addition, there is conflicting opinion as to whether withdrawal during pregnancy from heavy use may actually prove harmful Rather, drug treatment services and preventive interventions must be provided to all women in need, regardless of their precise childbearing status.

I recognize that each country will have its own issues surrounding drug abuse treatment funding and availability. What concerns me and should concern us all is the *nature* of the treatment available.

For example, is treatment accessible to women— are clinics in convenient locations and open when needed? Are there support services in place, such as transportation and child care, that enable women to come in for treatment? And most importantly, is the treatment itself sensitive to the needs of women —does it take into account that, at least in some countries, most drug abusing women have a history of sexual abuse or domestic violence?

Against this backdrop of available and effective drug treatment, we must all wrestle with a deeply troubling issue, one that gets to the heart of the role of government vs the individual—and that is, how directive should, or can government be in its handling of substance abusing pregnant women?

Given the chronic, relapsing nature of addiction, there is no simple answer. I have faith—and there are numbers in my country to back me up—that substance abusing women, particularly those who are pregnant—will utilize treatment if it is available and accessible

However, the larger issue remains: can we force someone to deal with her addiction? Must we use more direct methods, such as mandatory treatment, to bring these women into the treatment system? Should all pregnant women and all newborns be tested for drug use? And should instances of drug exposure be reported to child protective services? As a doctor, I cannot say. As a woman, I cannot say.

But as a human being, I say that our first response must be to make health and social services resources more easily available and accessible to help the drug involved individual or family. When all other interventions on behalf of an individual have failed, however, or when the children are neglected or abused, there may be a role for more directive measures. Whatever the ultimate response might be, these situations must be handled humanely, and the needs of the women, the children, and the families involved must take priority. In doing so, all of us, whether in government or not, must act in the best interests of the child. This principle may sound rudimentary, but it can conflict with an equally important goal of preserving the family, particularly with regard to families suffering with substance abuse problems.

The issue is not just recognizing a child's need to be protected, but also how quickly we as society act to give that child a permanent and stable family environment.

Pertaining to that environment, if, and when necessary, governments should turn to the extended families *and to the fathers* of these children to provide that stability. Obviously, such decisions must be made on a case-by-case basis, but how very important it is for all of us to recognize the importance of such family members to the welfare of the child.

It is also important to remember that while narcotics, cocaine, and other illicit drugs have devastating effects on the newborn, so, too, can a variety of legal drugs, particularly tobacco and alcohol. We must be careful that we do not focus too singularly on the illicit quality of certain maternal behaviors.

Our science has documented the tragic effects of Fetal Alcohol Syndrome and Fetal Alcohol Effect on the newborn, lasting with all its indelible and serious effects throughout childhood, indeed throughout life. Maternal smoking, more than any other maternal behavior, has been shown to have dramatic effects on fetal growth, prematurity, and subsequent morbidity and mortality. Not only are the potential effects of legal substances such as tobacco and alcohol at least as powerful as any related to narcotics and cocaine, but they are also far more common in many communities. We must address them both.

I return now to my original point. We must be careful that the emotion that is generated by a mother's use of narcotics or cocaine in pregnancy does not close our minds to the broader challenge of ensuring healthy women and healthy newborns. We must turn this emotion, this frustration, into constructive policies and the political will necessary for their successful implementation.

We must not let our frustration blind us to the larger challenge of eliminating all forms of maternal problems that threaten the health of the newborn and recognize that this will involve, virtually by definition, a broader commitment to the health of women per se, regardless of their childbearing status.

There are some that say that this frustration we feel for the action of drug abusing women has no place in the deliberation and implementation of these policies. I disagree. This frustration is real; it stems from deeply held convictions of right and wrong, and, in the end, it motivates us to act. But while anger and frustration can *inform*, it can also *deform* our policies, and ultimately undermine the good we all wish to do.

My contention is that the most productive pathway for us to follow is one that draws upon our frustration, but is also guided by our science.

My hope is that through this marriage of compassion, empirical insight, and science, we will build a renewed commitment to confront this catastrophic threat to our children and ourselves, and that it will possess sufficient power to ensure that the next generation of children will never know the ravages of drug abuse before they are born.

In doing so, and in our work with women and children, we must remember to hear with their ears, to see with their eyes, and to feel with their hearts—only then can we truly be called the advocates of children and women of the world

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References

Bulletin of the New York Academy of Medicine: Pregnancy and Substance Abuse: Perspectives and Directions May-June 1991/Volume 67/Number3

ANATOLY E. ROMANENKO

The Combined Influence of Ionizing Irradiation and Ethanol (Alcohol) on an Organism

Nowadays two diametrically opposed points of view exist about combined influence of ethanol and irradiation on an organism:

— ethanol acts as a radioprotector;

— ethanol in combination with irradiation worsens health status and reduces lifetime.

In studies of the 1950's and 1960's a weak protective effect of 10-25 per cent ethanol solutions was described for mice, rats, and other animals receiving lethal irradiation doses. Later data on radimodifying action of ethanol is contradictory and does not allow us to make any substantiated prognosis about its combined implication together with irradiation. Data on therapeutic action of ethanol on rats the first day after general irradiation with dose of 6 Gi is not convincing. Besides, a pathological effect of alcohol on the central nervous system is known. These results were demonstrated in a number of publications of scientists of our institute and investigators of other institutions (Grigoriev Yu.G., Ivanov A.E., et al., 1981; Niagu A.I. and coauthors et al.).

In the majority of experimental investigations in recent years contradictory results have been obtained, mainly evidence of worsening of biological indices of an organism after combined influence of these two factors: chronic alcohol consumption and ionizing irradiation.

Thus, experimental investigations are evidence of summation and potentiation of immunological pathological changes under conditions of the combined effect of internal irradiation with polonium (Po^{210}), alcohol, and smoking. It was revealed that chronic influence of such factors as internal irradiation with strontium-90, alcohol, and smoking decreased the level of physical working capacity and was characterized by a summation effect. It was determined that the low internal irradiation doses themselves did not affect the value of combined effect influence. The determined effect can be completely conditioned only by ethanol. At the same time as our investigations of the combined effect of alcohol and low doses of internal irradiation (Sr^{90} and Po^{210}) Dr. S.Ya. Sukalskaya (1987) revealed that ethanol did not cause any evident effect on either the nature or level of radionuclide accumulation in internal organs of experimental animals.

In other experiments the influence of irradiation with incorporated strontium (Sr^{90}) and alcohol was determined for the reproductive function of animals in comparison with a single effect of each of these factors. Then decreased capability for conception, lower fertility, and smaller litters were observed. Similar results were obtained during chronic irradiation of animals with incorporated Cs^{137} under conditions of their daily nutrition with ethanol.

The influence of iodine I^{125} (5,5 MBq per 150 g of body weight) and different concentrations of ethanol (0,2, 2,0 in 20 per cent solution 0,5 ml per day) was also studied. In 5 months after adaptation to ethanol the rats were injected with radionuclide; the irradiation dose in the thyroid was 1,5 Gi. It was revealed that intake of I^{125} caused increase of lifetime, decrease of body weight, decrease of lipoid fractions in blood serum, cholinesterase activity. Besides, the combined effect with ethanol notably increased the number and development rate of radiation-induced tumours of the mammary gland and also more marked and stable pathological changes in metabolism indices.

Lifetime and structure of death of experimental animals (white mice) under conditions of chronic combined effect of incorporated Sr^{90} in concentration 10^{-3} - 10^{-5} LD 50/30, ethanol (2,5 g/kg), and smoking were studied. It was determined that a structure of death and average lifetime of animals exposed to prolonged influence of Sr^{90}, ethanol, and smoking had depended on intensity and dose of irradiation, the kind of influence and harmful factors, age and sex differences. Average term of life of animals exposed to combined effect of Sr^{90} (10^{-3} LD 50/30), ethanol, and smoking was 18-22 per cent lower in comparison with control animals. Together with reduction of lifetime, the latent period of tumours had been decreased. Under conditions of combined influence, greater predisposition was noticed for spreading of metastases of tumours in comparison with isolated effects of the same factors.

Our investigators (I.B. Ushakov and coauthors, 1988) also studied reactions of the integrative systems of the brain in animals under conditions of the combined effect of ethanol and gamma-irradiation of the head with the dose up to 50 Gi (6,7 Gi/sec) with description of synapsoarchitectonics of the sensomotor

cortex and hydration profile of forehead lobes, truncus cerebri, and cerebellum in rats. Effects of their combined influence depended on the succession of effects. Intake of ethanol before gamma-irradiation of a head did not modify essentially radiation changes in synapses, but caused appearance of synapses degenerating by filamentary type. After irradiation of a head, ethanol in a dose of 0 28 g/kg of body weight did not cause any influence on radiation injuries of synapses During the influence of high doses of alcohol (2.25 g/kg of body weight) strengthening of effect of ionizing irradiation took place. In 67 per cent of cases degradation of mytochondriae was observed in presynaptic sections. Besides, in other experimental groups of animals (1-ethanol 0.28 g/kg of body weight, 2-ethanol 2.25 g/kg of body weight, 3-irradiation of a head, 4-ethanol 0.28 g/kg of body weight + irradiation of a head, 5-ethanol 2.25 g/kg of body weight + irradiation of a head, 6-irradiation of a head + ethanol 0 28 g/kg of body weight), these changes were revealed in only 11 percent of cases. A typical phenomenon for these groups 1-6 is the change of the internal membrane of mytochondriae, which twists into myelinetype membrane complexes. It has also been observed that ethanol provokes the effect of swelling during its influence after irradiation of a brain. At a dose of 2 25 g/kg of body weight under influence of ethanol hyperhydration takes place in all the sections studied of the central nervous system of irradiated animals. Thus, recent experimental data do not reveal mechanisms of combined effect of these two factors on an organism, and results obtained are contradictory.

The problem of assessment of combined effect of ionizing irradiation and alcohol on a human being is not simple because consumption of alcohol is quite a common phenomenon. Besides, opinion exists about the radioprotective effect of alcohol. Psychological studies conducted in the population in areas of strict radiation control indicate the symptoms of strong psychosocial stress, manifested by peculiar somatic, psychoemotional, and behavioral components. One should assume that the considerable increase in the level of alcohol consumption in population living in the areas contaminated with radionuclides reflects the condition named by us as " stressful life " as a result of the Chernobyl accident.

418 participants in the Chernobyl NPP accident living in St. Petersburg and the Ukraine were examined. They were exposed to low doses of ionizing irradiation 191 people consumed alcohol not more than once a month (control group) and 227 people consumed hard drinks, more than 200 ml several times a week (basic group). Assessment of morbidity was made for 2 years before the accident and 2 years after the accident. It was observed that before the accident in the basic group the number of diseases and days of incapacity for work were 1.2 and 1.35 times higher in comparison with the control group. For two years after the accident these indices grew 1.6 and 1.75 times It is revealed that growth of pathology in the blood circulation system in both groups takes place in accordance with an increase in total irradiation dose. Under conditions of combined influence of alcohol and radiation an aggravating effect on the cardiovascular system is taking place in professionals, age 35-50. It has been expressed in accelerated development of cardiovascular pathology and its crisis course, and a decrease of indices of physical working capacity.

Epidemiological investigations conducted in the Ukraine with $Cs^{134-137}$ contamination showed the same regularity of increase in number of somatic and psychosomatic diseases and days of incapacity for work. The results of anonymous interviews conducted in these territories show that more than 90 percent of the adult population consumes strong drinks chronically (3-4 times a week). Thus, we can see the appropriate tendency for an increase of somatic and psychosomatic disorders, disorders in behaviour, evidently reflecting a condition of psychosocial stress for which an increase of alcohol consumption is typical.

It is known that the objective index of the degree of alcoholization in a population is morbidity and mortality from alcoholic psychoses. Data for controlled Zhitomir region, Ukraine, 1981-1988, showed growth of lethal cases in 1981-84 and a regular decrease of this index in 1985-87, with a tendency to stabilization at a minimum level nowadays. It is not possible to explain this positive dynamic by a sufficient decrease of alcohol consumption in the population. Thus, in controlled areas the number of patients with chronic alcoholism has not decreased and the registered number of hard drinks consumed unfortunately doubled.

Results of experimental and epidemiological studies described in this work indicate the complexity of the problem and do not give any reasons for revision of existing concepts about the negative influence of ethanol on human health. However, widespread alcohol consumption dictates the necessity for further study of this problem and development of adequate prophylactic measures.

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FRANÇOIS RÜEGG

Adolescence, Drug Addiction, and Environment

Introduction

Perhaps never before have we had so many means available to fight against drug addiction and never have we been so weak. This should cause us to reflect.

It is evident that in the environment offered by a soft society like the post-modern one it is extremely difficult to obtain a result in any field, as mobilization has become so aleatory. The relativization which gives us constant comparison and multiple choices paralyzes us. The crisis that democracy is presently going through testifies to this concretely.

Moreover, as the "scientific model" is almost the only one recognized in the field of social action, we go from experience to experience, that is, from failure to failure, since the scientific principle wants people to be right until the contrary has been demonstrated. Perhaps it is necessary to see therein, however, one of the reasons for the numerous successes of initiatives of religious inspiration, very often a Christian one, namely, such projects rest, above all, on a faith, a charity, and a hope according to which man, no matter how low he may have fallen, is an image of his Creator.

At the risk of being unpopular and banal, I would like to adopt a global approach here to bring out, starting from three terms proposed, a framework for reflection which may serve for action. This approach finds support in observations by ethnology based on study of numerous cultures and sociological and psychological examination of contemporary Western culture.

My presentation consists, then, of three parts:

1) adolescence seen as a passage, a "passover";

2) the environment, considered as a secularization of cosmology;

3) drug addiction viewed as a cultural deviation.

1. The Passover of Adolescence

After a long-standing disdain for so-called primitive societies, some years ago treasures of practical wisdom, of a "human dimension," were discovered in them, the application of which does not require large investments: a reason to stimulate development workers. This is true in medicine (particularly in so-called "natural" preventive medicine); in education, through recognition of the importance of the "master," and of the unmediated relationship between him and his disciple; and, finally, in social psychology, with respect to the fundamental relations among the different groups comprising society[1].

It is well known that all traditional societies surround adolescence with special care. Psychological literature has been eager to stress the fragility of that age. Adolescence is perhaps one of the leading "events," after birth and death, for it constitutes in some measure a second birth, being born to autonomy, a mandatory step to take on the establishment of a new family cell. That is why initiation rites exist which separate groups by age, sex, and functions. In addition, the rites fulfill the purpose of protecting whoever submits to them against harmful influences accompanying every step, birth, death, and also adolescence. Belonging to a group and personal identification mark this step.

The adolescent, to take this step successfully, needs reference points, certainties, traditions, that is, a defined, coherent social fabric to illuminate a "worldview." A social "baptism" thus ought to succeed in introducing him into life outside the family. Now, our society, if it is possible to have recourse to such a vague term to characterize as a single movement realities which are, at all events, quite different, our "post-modern" and "Western" society is basically a-ritualized and preaches nondiscrimination: it does everything possible to erase identities and, consequently, differences: equality in terms of sex, function, role, and age. A psychiatrist thus wrote recently concerning childhood, in the specific context of an approach to divorce, that we have gone from the child-object to the child-king, and then on to the child-partner, before arriving at the child-consort[2].

This perfectly illustrates our thought. The individual is simultaneously exalted in the cults to sports, political, entertainment, and other celebrities. I shall not comment upon the presentation and quality of those heroes proposed for the admiration and identification of adolescents whose pseudonyms are sometimes suggestive and even provocative: sexless beings (like M. Jackson) or polymorphic ones (like Madonna) recalling the famous scenes of Hieronymus Bosch. Our society certainly does not lack rites, but none seems

to reflect the discriminatory and identity function of the rite of passage.

We can wonder how in such a context a fragile being in transformation can situate himself in an undifferentiated world inclined towards original chaos.

Is this not precisely the problem psychiatrists must confront with their patients, that of the rejection or failure of this passage, which could be termed the mourning of childhood? Already difficult in itself, this passage from indifference to identity may turn into an impassable abyss when the social environment is disturbed by family and cultural instability, when, along with the psychological difficulties of personal identification, for uprooted children[3] there are added those of many contradictory cultural systems, that of the family, the school, the street.

Everyone agrees about recognizing that adolescence is a time of special fragility where previous reference points, particularly the family nucleus, no longer function as before. If the rites which traditionally enabled them to overcome difficulties more or less successfully, especially by creating solidarity among age groups, also disappear, there is good reason to fear that forced substitute solutions will arise: compensating behavior, of which drug addiction is only one form and which ruthlessly casts back at us the image of a deficiency pointed to by this resorting to "products." The adolescent certainly suffers deficiencies, not so much involving products, however, as an environment in which he can situate himself. The whole vocabulary of drugs stresses escape from a world in which there is no room to live, a reverse image of the mystic's spiritual search....

2. Environment or Cosmology?

Recent interest in the environment points to a check, a break in Western thought affecting the optimism trusting in a Nature that could be exploited at will which reigned from the seventeenth century on. This check has, of course, the precedent of the two world wars in this century and the atomic explosion at Hiroshima, which provoked fear in the generations of the seventies and eighties of a nuclear holocaust, if not that of the population explosion. The epiphenomena begotten by this fear are well known: survival-oriented pacifism (the lieber rot als tot of the German pacifists), the end of the messianic ideologies in the West, individualism and consumption of the "every man for himself" variety, even an upsurge of belief in reincarnation, and, finally, "New Age."

Recent sociological studies on European youth and its values seem to reflect rather faithfully relations with the environment. Two types are distinguished:

— some are marked by insecurity, doubt; they seek refuge in turning back upon themselves, in isolation;

— others propose solidarity, a certain return to nature, and reinforce the line of the ecologists. Nor can we fail to point to the interest and even cult to the animal world people have arrived at today. The success of recent films devoted to the sea and its fauna amply testifies to this fact (these movements ought to be studied more deeply, but we do not have a chance to here).

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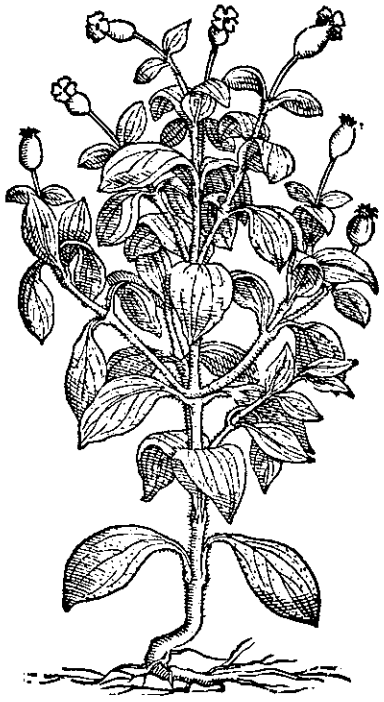

In reality, environmental awareness does not date from the twentieth century. It is interesting to observe that precisely in the eighteenth century the State gradually took control of natural space to dominate it and create the first efforts at "territorial planning." Space and savage men were thereafter ruthlessly persecuted. The false idea of society's wealth acquired at the expense of nature thus developed until the twentieth century, with some parentheses introduced by the reaction of Romanticism. But since then something has been broken: with the spirit of utilitarian economy, the "fear of God" also disappears.

Christianity followed the movement for a long time, leaving aside all that might seem "useless" or stained with "paganism." This hunting down of superstitions has resulted in a religiosity first of all rational, illustrated in certain cases by the suppression of ("useless") contemplative orders, well represented by the deistic religiosity of the eighteenth century. The cosmological dimension gave way to moral discourse, in a society contra natura. Later, fear of pantheism reduced the sphere of the religious and the social and the psychological. This of course meant preparing the way for the sects of all kinds which swiftly made cosmological and Western young people's frustrations explode.

The environment is, then, a dangerous concept which I have felt should be put in perspective, even in such a summary treatment as this.

Let us further observe some contradictions in this new infatuation with the environment and the "natural" life, while on a planetwide level all men begin to show concern for the lack of ozone or air pollution-which they often do not perceive directly-urban degradation, graffiti, and the gloominess of extreme neighborhoods seem to move politicians little. One might say the measure of man-the golden rule-has been lost for Western culture, which has nevertheless been proud for a long time of keeping the "right measure," following the Greek philosophers therein. Between space expeditions and introspection, there no longer appears to be room for a cosmology in which

man has a place assigned between the Creator and creatures. As for St. Francis, only the birds remain.....

However, familiarity with nature or " spirits " gives adolescents, apprentices par excellence, stabilizing bonds and physical relations We have to go far back into the history of Christianity to find that cosmology again, except for a certain oriental tradition and popular cultural, often accused of obscurantism. Unfortunately, we must always pay dearly for our infidelity to God or nature before discovering the wealth from which we have quickly and joyfully " freed " ourselves.

To recognize the cosmic order is also to recognize the hierarchy of creatures and their relations. But how can we sustain this argument in a context which reacts only to feeling, to fear of pollution, without reflecting on the order of a world created by God? And, nevertheless, centuries of art and Christian spirituality have borne witness to the possible existence of a Christian cosmology: let us again contemplate St. Francis, the medieval churches and cloisters reproducing the course of time, the history of salvation and the curve of space, Gregorian chant marking the hours.

I believe we would be mistaken if we stopped at the surface of things and saw in ecological movements a possible way out, a reconciliation with the cosmos. Some of those movements seem to be also marked by the generalized materialism: more than life they prefer survival and very little the harmony between spiritual life and the life of nature.

Adolescence is, therefore, a privleged moment for the discovery of that harmony, of the exaltation of natural life encompassing respect for creation, but with respect for the creature and his Creator.

3. Drug Addiction as a Sign of Cultural Deviation

Drug addiction is only, and this has been repeated often, an especially visible and disturbing element of contemporary cultural drift. Child prostitution and the organ traffic are other, no less tragic facts of the same shipwreck.

Culture invariably suffers from collision with the inhuman dimension of our relations. We believe we can assert quite firmly that drugs, the product, are not the problem, but its manifestation. This is the reason why so many attempts, so many information and education campaigns have failed: have sexual education campaigns offered better results? To incriminate consumer society, capitalism, injustice, and so on strikes us as useless, for it is very general. Let us, rather, consider values, that is, the importance given to the different elements constituting human activity in society. Naturally, in the framework of this presentation I cannot deal with more than some fundamental values regarding the use of narcotics: time, space, and relation.

Until the advent of atheism, religion established the use of time. The profane conception of time, instituted by technological societies, appears to us to be significant for observation: in effect, from a psychological standpoint it is not indifferent to know that the more time one has to live, the less we feel we have time to live. In parallel fashion, times have become interchangeable, that is, everything can be done in any time, hour, day, or season. It has been stressed, to take a well-known example which is, however, commonly isolated from its " temporal " context, that leisure, i.e., in part an excess of free time, coincides with an increase in the consumption of narcotics. In the absence of norms on time in general, its quality and use, it seems quite difficult to inculcate notions on its proper use. This has happened particularly in the development of the use of tobacco after the last world war in Europe. The food consumption itself has followed that disorder, just as in the case of alcohol.

CINOGLOSSA VOLGARE FIORITA.



In terms of the environment, we have already mentioned the question of space. I would like to add a dimension, that of human mobility, which renders space an indefinite, though limited, element and daily increases the numbers of those who find themselves uprooted.

As for relation, the person in our post-modern cultures, as has been repeatedly observed, disappears in favor of the individual. Accordingly, even in fields of elevated morality, as human rights usually is, individual rights oppose each other: female against male, children against parents. Others, in addition to myself, have shown how attributing sacredness to individual freedom has engendered perversions: pornography in the name of freedom of expression, drug addiction in the name of freedom to escape..... The ideal of contemporary man remains absolute freedom, freedom from every constraint, and, therefore, to some extent, from all relation. The notion of destiny has also been relegated to culture's primitive past, the apparent independence of contemporary man is affirmed to be his dominion over matter. But surely man has never been so alone and so dependent and controlled. This means that the adolescent, who should have the experience of his initial freedom, freedom from dependence on the family, frequently confronts life as already the victim of all liberations, without having established profound ties to anyone.

The relation among men, the relation to God, and the relation to the world are all in crisis. In being realized in an increasingly subordinate and impersonal manner, rela-

tion no longer provides the experience and apprenticeship necessary for all social life. If the family is certainly the first place for all relation, it is no longer enough for the adolescent-without mentioning that it no longer suffices even for the child, in view of its current indigence: broken, reconstituted families, handicapped families, locked in themselves, no longer fulfilling an economic role and serving as a refuge from all emotional frustrations. Many studies have effectively shown the adolescent's need to find a stable relationship with an adult outside his immediate family; perhaps we see here the role of maternal aunts and uncles, so valuable in certain tribal societies, if godparents in former times, without going into the role of spiritual guides, replaced today by exotic gurus.

Conclusion: Cosmology Rediscovered

To simplify, it may be said that the basic question raised by drug addiction is that of man's place in the Creation. To situate man there has always been a need for signs: setting and also accepting limits, even if only the one inexorably set by death. The role of culture is likewise to articulate, formulate this "primitive" and primordial question. Religion occupies a central place in this process, for it responds to questions on both origin and end. At all times it has proposed rites symbolizing man's relationship to time and space.

The value of a religious kind of approach in treating drug addicts is now widely recognized; initiatives along the lines of "drug addicts anonymous" make this clear. The relationship with the Absolute and others is ensured. Many specifically confessional initiatives have been crowned with success. The question of prevention seems more arduous to the extent that it comes up against the sacrosanct secular conception of pluralism in Western democracies. The religious and moral approach, in the measure in which it comprehends a cosmology, in our opinion permits one of the best forms of prevention, since it proposes a global system of interpretation of existence, or, if you will, a "way of using life"; the adolescent here acquires a personal identity and grasps what his place in the universe is. Through the guarantee of a relationship with the Absolute he can consider his life in an eternal dimension, that is, with the hope of survival. In harmony with the world, the believer can also count on the solidarity of a community.

Christianity offers this peculiarity of transcending the individual to link him to his origin and his end, God, through Christ. It does not judge the drug addict to condemn him, but ensures for him understanding, mercy, and reconciliation. Isn't it time to give back to the Sacraments their anthropological depth, their therapeutic, curative, and preventive value? Might Confirmation not recover its initiatory function?

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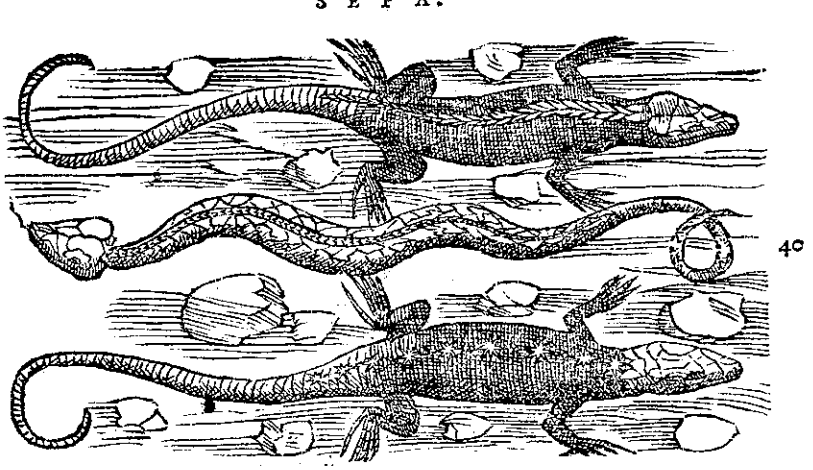
References

[1] Cfr. De Besse, *L'adolescence*, Parigi, 1943-1988.
[2] Cfr. Camilleri.
[3] T. Aanatrella in *Etudes*, 3/1991, pp 311-322
[4] Cfr. M.J Coloni *Les enfants déracinées*, Losanna 1990



ANTONIO MAURAU CAVALCANTE

The Personality and Sociocultural Profile of the Drug Addict

Introduction

Personalities from different parts of the globe are speaking here. This signifies the importance of the drug phenomenon in our time. Drug addiction affects all cultures and all peoples. There is no place left untouched. It disturbs families, educators, and society, as well as each person. We observe that drugs always leave traces of individual, family, and social suffering.

In this perspective, a study of drugs, as a mass phenomenon, demands a multidisciplinary approach. For this reason, in each sphere of scientific knowledge a sketch which can only be complementary should be made. In this sense, we shall taken into account Professor Claude Olivenstein's proposal to maintain the following equation: the product, the personality, and the sociocultural context[1].

When an individual approach is attempted, the psychological dimension is usually resorted to. We then try to find a typology referring to persons more or less likely to become drug addicts, asking, from a preventive standpoint as well: What are we to do then? Or, as a result of an underlying sentiment of guilt, which always emerges in such circumstances, we ask, At what point did we deceive ourselves?

Personality

The very term "personality" proceeds from the Latin persona, which designates an actor's mask; this also gives us the word "person." One of the characteristics of the theatrical mask is its permanence, its immutability[2]. The notion of personality always refers us to the idea of unity integrating the human being. It determines the individual in his way of living each day. It presents itself as relatively stable and foreseeable.

Every man possesses his personality, and it translates into a structuring and structured totality for the individual. The personality is constituted through dynamic elements at a cognitive, emotional, psychological, and morphological level. In this dialectic the basic elements are situate, that is, innate dispositions, hereditary constitution, and acquired tendencies coming from environment and reactions to that influence.

The Personality of the Drug Addict

In other times, when drug addiction was practiced in special groups and had still not reached its present scope, certain personality types were usually associated, like the process of regression to an oral state or the manifestation of narcissism, connected with perversion or a fragility of the self. It seemed possible to trace out a profile to identify the drug addict.

It is clear today that drug dependence can affect anyone, of whatever personality, or, rather, it is not possible to circumscribe any drug addict to a given personality.

However, it is important to establish from the outset a difference between someone using drugs occasionally or frequently and the real drug addict. Claude Olivenstein[3] speaks of the "broken-mirror" phase or stage. The real drug addict, who has established a fusion-alliance with drugs, is thought to have affective deficiencies going back to early childhood and supported by a permanent feeling of incompleteness, a lack (a fissure or gap), avoid later filled by drugs.

In addition, we observe the impact of the youth/drug encounter termed "flash," "high," and so on (in Brazil there is use of the word lombra). That special moment will never be forgotten, experienced as a kind of honeymoon that will definitively transform the economy of the libido of a personality being formed. As Piera Aulagnier indicates, "Drugs in which play constitutes not only a source of pleasure that really counts, but a pleasure that becomes necessary."

At present two contradictory tendencies are manifested. On the one hand, as J. Bergeret points out[4], some think they can define a single model for the addictive personality, and, on the other, some oppose reducing the different forms of drug addiction to a single model.

The former seek to reflect criteria enabling us to recognize an addict. What is his profile? How can he be identified? This is attitude found most frequently among educators, judges, and relatives.

The latter, especially clinicians, defend their position, resulting from the most varied experiences of people and cases. From that starting point it may be said that no personality structure proper and exclusive to the drug addict exists or any possibility of establishing a special nosology for the drug dependent. The current trend is to admit that this phenomenon may develop in any type of mental organization

when a certain number of conditions are fulfilled.

Professionals working with drug-dependent persons unanimously assert that, from a structural standpoint, there is no characteristic element revealing addiction. Drug dependence is situated in the same contingencies as delinquency, suicide, and social deviation.

The personality is thought to be structured according to three different forms, definitively determined in adulthood.

The first is the neurotic, Oedipus-genital structure. As J. Bergeret reminds us, these terms do not at all imply the existence of any disease. A neurotic structure may be seen equally in an individual suffering from neurosis (pathology) and in another who, while presenting a neurotic character, manifests the normality of that structure[5].

The second structure is "psychotic" and may be at the root of the "psychotic character," situated in the normal state of that structure, or, as in psychosis, manifesting illness, properly speaking.

The third form of structure has an essentially depressive basis. The individuals presenting this form are thought to experience difficulty in affirming their identity during the adolescent crisis. They remain unstructured for a long time. They are essentially immature adults functioning within a depressive register.

Drug addiction can affect any of these people, presenting the aforementioned configurations in either "normal" or "pathological" forms, without manifesting for this reason any special modifications of those configurations.

The hysterical character immutably remains in an individual heading towards drug addiction. The same may be said of psychopaths and those presenting other forms.

The essential aspects referring to the basic personality register thus persist. Only superficial alterations in the structure can take place.

In regard to the first structure, that is, the neurotic personality, individuals present affective problems, particularly on the level of imagination. They display difficulties in the register of mental representations. When drugs appear, they meet these needs. We observe that for a certain period they continue to be well adapted to the conditions of social life.

In the second perspective, the psychotic personality—drugs come into the lives of these people either because they allow them to avoid delirious episodes by detouring toxicomaniacal behavior or because their use may justify delirious effects.

The third group is today the most important one. Such persons are characterized by emotional immaturity. They are thought to have emerged with a poor structure from the crisis of adolescence, or, rather, the crisis may have been prolonged until an advanced age. They are badly organized persons in emotional terms; their dreams are never happy; they experience no passions; no ideal guides their lives. In short, they display no originality. They are easily influenced, unsatisfied people. Out of fear of being abandoned or isolated, they turn to a group of people similar to themselves, immersing themselves in thorough conformity. In the end, they fall into an authoritarian dependence on others, either the least unstructured or the most perverse in the group; and they thus find themselves immediately to be directly dependent on drugs and, as a result, on traffickers.

The discussion prompted by drugs, then, requires self-questioning by each society. If, on the one hand, the worsening of the situation leads some people to panic, we cannot forget, on the other, that it is a very rich moment. Crises can represent a proclamation of life and generate evolution.

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References

[1] OLIEVENSTEIN, C., *La drogue, écrits sur la toxicomanie*, Paris, Idées, Gallimard, 1978.
[2] DELAY, J., PICHOT, P., *Manual de Psicologia*, traduzione di Edmundo Haas, Rio de Janeiro, Ed. Guanabara Koogan, 1972.
[3] OLIEVENSTEIN, C., *idem*.
[4] BERGERET, J., LEBLANC, J., *Toxicomanias, uma visao multidisciplinar*, traduzione di Maria Teresa Baptista, Porto Alegre, Artes Médicas, 1991.
[5] BERGERET, J., LEBLANC, J., *idem*
[6] VALLEUR, M. et AL., *Vous, vos enfants et la drogue*, Paris, Ed. Calmann-Lévy, 1990.

ELIO SGRECCIA, MARIA LUISA DI PIETRO

Drugs and Sexual Freedom

Introduction

The problem of drug addiction, or, as WHO suggests, "the consumption of substances that create toxicomania," is one of the most complex issues: for physicians, psychologists, sociologists, and politicians it presents one of the most serious matters to cope with, if we consider that this phenomenon has an effect not only on the single individual but also on society and on the equilibrium of all nations[1].

The drug world may thus be analyzed from many and various angles: our article will be limited to the analysis of the relationship that may exist between drug consumption and unrestrained and/or violent behaviour. We must ascertain whether certain sexual alterations we usually note in drug addicts are due to the pharmacological effect of the substance abused or whether they are generated by the need for more money for new doses, as happens in prostitution.

In the second place, we will analyze the effects of drug misuse on the drug addict's sexual and reproductive life and, as a result of psychological alterations, on his married life. Before we start analyzing, we would like to stress, as studies confirm[2], that drugs are taken not only because they generate euphoria and hallucinations, but mostly because the drug user wants to escape from reality, or because his social and family situation does not correspond to his expectations, or because he feels unable to face reality with its rules.

Therefore, drug consumption often arises from a personality with psychological and psychobiological disorders. The more monotonous and poor life is or the less bearable the anxieties and tensions become, the stronger is the temptation to take drugs. The drug becomes in this way an unconscious reaction of defense, a means to fill empty spaces and to show the others one's loneliness, an attempt to reconstruct a *Gestalt* of a self that exists potentially, but which can be reconstructed only through the experience of hallucinations, in an illusory way[3].

The psychological image of the drug addict's personality —as some American authors have pointed out[4]— shows, apart from general emotional depression, ambivalent religious attitudes, a refusal of family relations, indecision in the relationship with friends, anger against social institutions, frequent defense mechanisms, and also insufficiency in sexual identity.

If we leave out the fact that this sexual identity crisis could be due or not to the early experience of having lost the mother or to the difficulties of identification with the pattern of the parents[5], we must recognize that the sexual behaviour shown after drug consumption is also a result of a vulnerable personality, incapable of bearing frustration, uncertain and not very autonomous.

Alternations in sexual behaviour as a result of drug consumption

As we already mentioned in the introduction, we have to distinguish between the alterations in sexual behaviour exclusively due to the pharmacological effect of the abused drug and those that occur as a result of the altered lifestyle of the drug addict.

While analyzing the effect of drugs on sexual behaviour, we will effect a classification, splitting them up into vegetable and synthetic drugs[6]. In the end we will also take a short look at alcohol.

a) *Drugs of vegetable origin*

It is well known every drug may create excitation or depression in the individual. It depends on the mode of consumption and also on the personality of the drug addict and on his style of life[7].

Cocaine, for example, has a different effect on sexual behaviour if it is taken in small doses from time to time or in high doses for a long time:

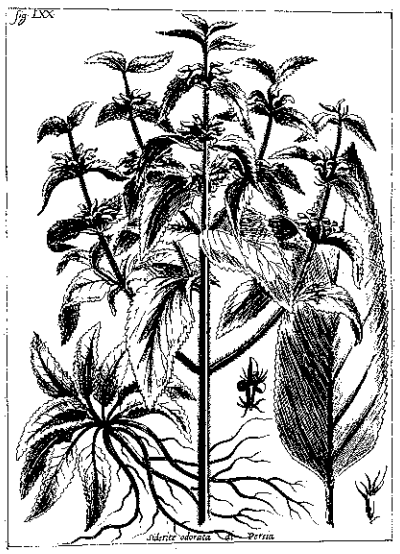
— if it is taken in small doses by non-addicted persons, it may infact increase sexual activity and delay ejaculation;

— if it is taken for a long time, it reduces the libido and causes impotence.

The reasonable use of cocaine raises the libido, eliminates inhibition, and intensifies sexual pleasure, whereas high doses of cocaine lead to a progressive loss of personality and impotence, which induces the addict to raise the dose additionally.

Opium, when masticated or smoked, slows down the libido but generates at the same time a delay in ejaculation with a pleasant effect on sexual intercourse.

Opium by-products, like *heroin* and *morphine*, reduce potency and



libido in males, blunting not only the impulses of hunger and pain, but also of aggressiveness and sexuality. The same effects may appear in females. A prolonged use of heroin and morphine may cause amenorroea and increase the risk of miscarriage.

Most opiate addicts, at least during the first years of misuse, seem to be driven to drug consumption because of sexual problems that worsen gradually: every therapy for rehabilitation is unavoidably doomed to failure if it does not take into account these difficulties.

Finally, we must stress that heroin and morphine consumption, because of the depressive effect on the reticular system of the encephalon and the resulting effect of liberation on the cerebral cortex, reduces the sense of restraint and self-control. It increases sexual aggressiveness although sexual desire declines.

The *hallucinogens*, like, for example, LSD 25 (or lyseric acid diethylamide), are mostly taken for sexual purposes. They produce alterations in somatic and sensorial sensitivity which create a feeling of lightness and sensitive dilation, increasing in this way orgasmic pleasure. As a side effect, there may be the total loss of physical control, but there is no alteration in erection or ejaculation in males. The by-products of *Indian cannabis* are also used for erotic purposes. They produce an effect of restraint and more intensive sexual pleasure, which as a result increases promiscuity and anticonformist behaviour.

Marihuana smokers, especially the males, may have a decline in libido and potency as a result of a decreased level of testerone.

b) *Synthetic drugs*

Among synthetic drugs we want to point out amphetamines, methadone, and inhalants.

Amphetamines have a psychostimulating effect and cause hypersexual behaviour in drug addicts. In the case of prolonged consumption with a gradual increase of doses, we notice, however, a decline in libido and potency: it is a vicious circle because the drug addict will still raise the dose of amphetamines for an increase in sexual activity until he reaches a level where all the effects attenuate and finally disappear.

Methadone restores in males the sexual functions completely, whereas in women it solves the problem of secondary amenorrhoea and has a positive effect on pregnancy.

The inhalants (plastic substances, paints, and so on) generate a euphoric state of mind with psychomotor hyperactivity and feelings of being unbeatable and omnipotent. They also produce an increase in sexual activity and aggressiveness.

c) *Alcohol*

We cannot leave out short remarks on the effect of alcohol on sexual behaviour: if alcohol is taken irregularly in small doses it generates a decline of restraint and self-control. In high doses it instead reduces or eliminates sexual potency, but not the erotic instinct[8].

Alcohol is also thought to be responsible for an inversion of sexual tendency, that is from hetero to homosexuality. There is also an increase in aggressiveness, with violent sexual behaviour[9].

Alterations in the sexual behaviour of drug addicts not due to drug consumption

In addition to the change in sexual behaviour due to the direct effect of drugs, we can notice a series of different types of behaviour the drug addict shows during the different phases of addiction which are due to psychological disorders or to the need for new doses of drugs. Before we take a deeper look at this phenomenon, first we have to analyze briefly the addict's personality and the different stages he passes through during the evolution of addiction: we have to state in advance that some disordered and unrestrained sexual behaviour is attributable not only to the drug user, but also to society, that creates a culture of hedonism, which is the search for pleasure, success, and easy profit.

At the initial stage of addiction the drug addict doesn't reveal his deviation but tries to disguise himself in the social fabric, staying with

his family and trying to continue his study and work.

Only in a second moment, when the need for more money becomes impelling, the drug addict may be involved in illegal actions. Thus we may affirm that the ability to conceal is in direct proportion to the socioeconomic situation of the drug addict and his family[10]. In fact, recent studies carried out by the Regional Government of Latium, Italy, show that the acquisition of drugs is mostly done by means of illegal actions (thefts, prostitution, etc.) for a total amount of 88.3%, whereas only 16.1% of the addicts resort to work, 28.7% ask for loans, and 22.3% beg for alms[11]. However, there is no difference of sex, age, or profession in those who resort to illegal actions

As far as the phenomenon of prostitution is concerned, recent studies carried out in Miami[12] pointed out the presence of so-called *get off houses* where the drug addicts—apart from taking drugs—may also prostitute themselves. The *get off houses*—a term that also indicates the association between drugs and prostitution— are open 24 hours, and whoever attends these houses must stick to certain rules (sterilization of needles, use of condom, etc.)[13].

Again in Miami it has been revealed that prostitution is a very common phenomenon among young people who make use of *crack*. A recent study carried out on 254 juveniles (average age: 14.7) showed that they prostituted themselves 22,000 times a year[14] either in the so-called *crack houses* or in the streets.

Of course, no distinction has been made between homosexual and heterosexual customers, and no information was gathered about HIV seropositive persons. Furthermore, it has been revealed that certain terms with strictly sexual connotations were used to indicate some types of drugs: *girl* stands for cocaine and boy for heroin[15].

However, the most common experience shows that the "good" boy, who for a time has been considered self-confident and forward by his family, begins to complete his financial means by thefts in the home and later, when these sources are exhausted, in hostile and violent surroundings.

Thus, the drug addict is no longer driven by the effect of the drug to seek ever newer and broader sexual experience—even if we can't exclude a certain influence—but he is driven by the desperate need for money. This army of desperate persons, incapable of thinking and without any moral reference, finds no other solution than selling its own body for even little money, just to purchase new doses of drugs. The drug addict is unable to delay his urges; he is dominated by the desire for immediate satisfaction of his experience of "absence" and desire for the substance of addiction: there is nothing more important than the possible pleasure that could be given by the drug. It does not matter at all that he reaches his goal by immoral and degrading means putting at risk his own life. Nor does it matter to him that his behaviour is in contrast to every moral and civic rule: in his delirium of greatness and omnipotence he refuses every restriction on his behaviour and denies his right to live and to be respected as a human being[16].

Such an indifference towards all moral rules and the possibility of placing at risk his own life is confirmed by data revealed in a recent French survey[17].

We know well that there is a strong self-destroying power in the drug addict that drives him to take more and higher doses of his drug: in addition to this, there is a strong urge for destruction of self and others in the seropositive drug addict who does not change his sexual behaviour even after having realized his situation. The above-mentioned survey, in fact, points out that out of 94 seropositive drug addicts only 11 (11,7%) had no sexual relations. The remaining 83 addicts were either heterosexual (75.6%) or homosexual (6.4%), and 6.4% prostituted themselves with homo- or heterosexual persons. Only 3 7% of the sexually active persons used a condom, whereas 83% of them did not even ask if the partner was seropositive. Consequently, there was a high probability that the drug addict would infect the partner, and, moreover, there was a risk that the seropositive drug addict would repeat sexual intercourse with an infected partner.



There is no doubt that the drug addict is responsible for his actions, but this responsibility is restricted by a progressive loss of the ability to understand and will. Completely responsible for this kind of degeneration is that person who takes advantage of the drug addict's need for money, taking care not to help him or oppose his choice of self-destruction.

As recent studies on the drug addict's personality show[18], it is just because of his psychological weakness that he may be compared to a scared child that feels the need to test continuously the love others feel for him: but society offers a really different "love," love sold for little money in promiscuous situations.

The world of prostitution has other bitter surprises for the drug addict: often he becomes a victim of sexual violence inflicted by the partner or other drug addicts. As we saw in fact in the previous paragraph, some drugs (LSD, etc.) increase sexual aggressiveness, and violent behaviour occurs. A German study of the Kriminalvaird has shown that in 1984-1985, the drug addicts sentenced to prison for sexual crimes made up a significant percentage of the total number: they were mostly males and between 20 and 40 years old[19].

As a serious consequence of altered sexual behaviour after drug consumption, we may not neglect a possible increase in the already high number of AIDS-infected drug addicts [in July 1988, in Italy 66% of the drug addicts were infected with AIDS[20]], not because of infection due to a "dirty" needle, but to prostitution. To this we have to add the possibility that the seropositive drug addict infects the partner of sexual prostitution, thus giving thus rise to a series of infections that will be difficult to curb or to stop.

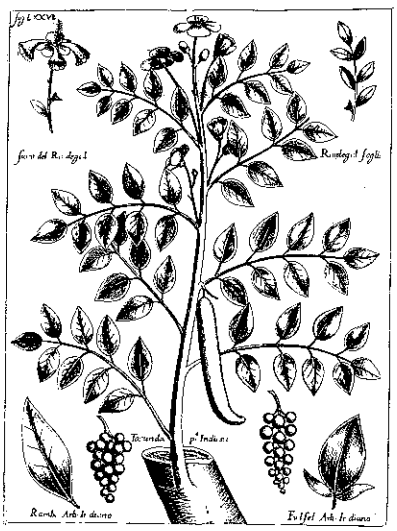
As we said before, it is difficult for the drug addict to change his sexual behaviour, even if he knows he is seropositive.

In research done in Italy on 200 drug addicts we see that 86.5% were heterosexual, 2.5% homosexual, and 9.5% bisexual[21]. Leaving aside the sexual tendency, 67% of the drug addicts had more than one sexual intercourse a week, whereas 33% had more than 10 partners a year; 11% of the heterosexual addicts used the condom, compared to 31% of the bisexual, and 0% of the homosexual addicts. The same researchers confirmed the same data in a study carried out in three different cities: Rome, Turin, and Milan. If we take only Rome as an example, out of 200 drug addicts, 84 seropositive and 116 seronegative, only 15.5% of the seropositive used a condom, whereas 55.9% had started to adopt more careful sexual behaviour.

We ought to get a deeper knowledge of the relation between drug consumption and sexual behaviour not by means of epidemiological aspects—as we did until now—but by ethnographic urban research (on gangs, groups of prostitutes, etc.) in order to have a more exact picture of the situation and to prepare specific intervention strategies.

The effects of drug abuse on married and reproductive life

At the end of our analysis of the relation between drug abuse and alterations in sexual behaviour, we believe it adequate to present some reflections on the effects on married and reproductive life of the drug addict.



It is well known that a marriage is only valid—according to civil and canon law—if consent is given by mentally mature individuals able to understand and will.

For canon law, for example, the simple use of the mind is not sufficient but two more elements are required: both partners must have the proper knowledge of the essential nature of the marriage contract (*cognitio intellectus*) and the will for the mutual gift of their bodies in order to reach through conjugal copulation (*voluntatis deliberatis*) the aim of marriage. However, the agreement may be invalid because of a flaw in intellect or will.

Among the defects in intellect there is mental incapacity, the state of mind of a person who at the moment of the wedding celebration is not able to make up his mind because of an incurable mental disease or a temporary psychological disorder.

Among the psychological disorders we find those due to temporary disorders, like drug addiction, that lead to unconsciousness. This may cause the annulment of the marriage if the disorder is acknowledged to be a cause that invalidates the agreement—as the Sacred Roman Rota decided in recent sentences. The effect that drugs may have on the user's state of mind has been largely proved and has already been recognized by jurisprudence[24].

Indeed, the drug addict's state of mind may be altered in a temporary or permanent way. There may be changes in mood, emotivity, motivation, and thought. To the already mentioned disorders of identity we must add those due to the medical effect: uncertainty, instinctive and affective immaturity, introversion, and inhibition in social relationships, emotional instability, and little control over physical urges[25]. The process of affective maturation is blocked in drug addicts: the drug addict is incapable of real oblation and as a consequence incapable of establishing a real interpersonal and stable relationship.

His own self, insecure and frail, is the real center of gravity of the drug addict's personality.

As to the effects of drug use on reproductive life, we already men-

tioned the alterations in female fertility (inhibition of ovulation due to the cessation of hypophysial LH and FSH secretion, secondary amenorrhea) and in male fertility (impotence, oligospermia, and precocious ejaculation)[26]. Thus, we will take a short look at the effects of drug addiction on pregnancy[27]. The problems that may arise in drug-addicted women are of biological and psychological origin.

Among the biological risks for the mother-foetus union that arise due to drug use—as, for example, with opiates— there are higher rates in miscarriage, premature birth, newborn with low weight and with newborn abstinence syndrome[28]. We must add to this the inherent behaviour of toxicomania that determines the abandonment of the foetus to pathogenic noxae that normally are avoided by common hygienic measures during pregnancy. We refer to qualitative and quantitative malnutrition, infections due to the improper use of syringes and frequent sexual promiscuity (recall the mother-foetus transmission of the agents of syphilis, genital herpes, viral hepatitis, and AIDS)[29], and to the continuous carelessness about personal health that might cause disastrous consequences for the present and future health of the product of conception.

From a psychological point of view, the frail psyche of a drug-addicted woman is sorely tried during pregnancy—a phase of life with deep psychological assimilations[30]—and with the resulting difficulty in accepting the new role. Indeed, we observe in these women a tendency to neglect their pregnancy or even to " deny it " so that the obtained with great difficulty interior homeostasis is not disturbed.

Conclusions

At this point we may only ask ourselves: " What shall we do in order to face this scourge that destroys our society? " We are not going to analyze the theories worked out on the subject of prevention and recovery of the drug addict, because this topic has been discussed at length in other places. We would like to stress a common element in the spread of drug use and the increasing promiscuity in sexual relations. Leaving aside the possible connection between those two phenomena, it is certain that one of the reasons for both, drug addiction and sexual promiscuity, is the lack of values. Values the family is not able to transmit to the young person or that he does not find in a society for which satisfying needs and obtaining pleasure are pursued in themselves, without any normative principles, because the individual is regarded as a law unto himself, the reason and criterion for all conduct behaviour. The results of the aforementioned survey in the region of Latium states conducted—for example—that the most frequent reason for drug consumption is indeed the lack of principles and values (72%), followed by the wish to imitate cultural patterns (29 3%). Interpreting the data, we must consider that every individual gave several answers at the same time. In addition to the information that has to be given on the topic of drug addiction and sexuality, it is necessary to create values in the families, where the basic behaviour of the future adult is formed, as well as in environments where young people generally meet, like schools and peer groups.

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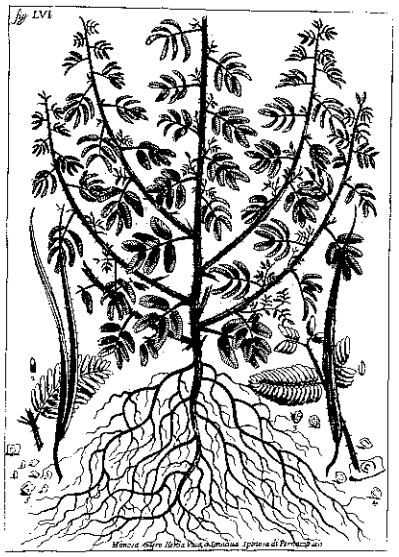
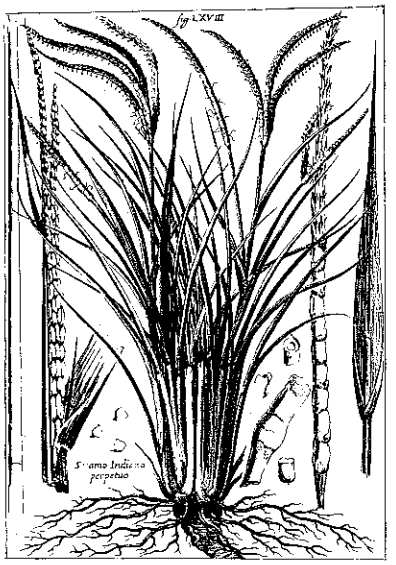
Bibliography

[1] Sull'argomento vedi solo per citare alcune opere: CICCONE L., *Salute e malattia. Questioni di morale della vita fisica*, vol. II, Ares, Milano 1986, pp. 323-436; MCKOY A.W., *La politica dell'eroina*, Rizzoli, Milano 1973; BRUNETTA G., *Giovani e droga*, Centro Studi Sociali, Milano 1978; LAMOUR C., LABERTI M., *Il sistema mondiale della droga*, Einaudi, Torino 1973; COMITÉ OMS D'EXPERTS DE LA PHARMACODEPENDANCE, *Séries des rapports techniques Sezième rapport*, n. 407, 1969, p. 6

[2] ZUANAZZI G., *Il fenomeno della farmacodipendenza nei soggetti in età evoluta*, Medicina e Morale, 1976[3], pp. 240-253; GIULIANI M., *La tossicodipendenza: approccio culturale e modelli d'intervento*, in SGRECCIA E. (a cura di), *AIDS Problemi bioetici correlati con la clinica, la epidemiologia e le implicazioni socio-culturali della sindrome da immunodeficienza acquisita*, Centro Iniziativa Culturale, Bologna 1988, pp. 72-76.





[3] CANCRINI L., *Quei temerari sulle macchine volanti. Studio sulle terapie dei tossicomani*, La Nuova Italia Scientifica, Roma 1982.

[4] INCIARDI J.A., *Trading sex for crack among juvenile drug problems: a research note*, Contemporary drug Problem, January 1990.

[5] AA VV., *Sviluppo deviante e problemi di intervento*, Patron, Bologna 1982.

[6] FIUME S., DEL MONACO F., *Le intossicazioni croniche voluttuarie*, Paoline, Roma 1974.

[7] BRUNO F., MASELLI F., *Per paura di vivere. La tossicomania come malattia e le terapie possibili*, Città Nuova, Roma 1985, pp 104-106.

[8] SENINI G., SIGURTÀ E.F., *Aspetti biopatologici dell'alcolismo*, Pitagora, Bologna 1981; TEMPESTA E., ZEPPETELLI E., *Aspetti bioetici dell'alcolismo*, Medicina e Morale, 1989[1], pp. 55-75.

[9] BRUNO, MASELLI, *Per paura di* , p. 106

[10] *Ibidem*, pp. 117-130.

[11] Consiglio regionale Lazio —Provincia Roma— Comune Roma, *Arcipelago droga: indagine conoscitiva*, (a cura della " Logos Ricerche "), Roma 1988, pp. 5.148-5.151

[12] HALL J., *Sex, drogues et controle du Sida. La comunication interne aux reseaux d'usagers de cocaine a Miami*, Sida e Toxicomanie (II), 1991[9]; pp. 38-41.

[13] PAGE J.B., *Shooting Scenarios and Risk of HIV-1 Infection*, Am Behavioral Scientist, March/April 1990 (33/4), pp. 478-490).

[14] INCIARDI J.A., *Trading Sex for crack among juvenile drug problems*, January 1990

[15] PAGE B. et al., *Intraveinous drug use and HIV infection in Miami*, Medical Antropology Quartely, December 1989, pp 57-72

[16] GIULIANI, *La tossicodipendenza: approccio* ., pp 75-76.

[17] JACOB C., *Séropositivité et SIDA declaré, analyse à partir d'une institution de soins pour toxicomanies*, Sida et Toxicomanie, 1989[3], pp. 40-44. Vogliamo mettere in evidenza che la diffusione dell'uso del condom a scopi contraccettivi, ad esempio, tra la popolazione adolescenziale non tossicodipendente né sieropositiva, popolazione che è anche compresa nello studio di Jacob, è del 26% del totale, contro un rilievo del 3.7%, fatto dall'autore su una popolazione tossicodipendente e sieropositiva, eterogenea per età. Da qui un'ulteriore conferma dell'incapacità del tossicodipendente di prevedere il rischio a cui va incontro, soprattutto spinto dall'incontenibile desiderio di utilizzare il proprio corpo come mezzo per ottenere altro denaro per nuove dosi.

[18] BRUNO, MASELLI, *Per paura di* ., pp 121ss.

[19] Riportato da LUZI F. (a cura di), *Il trattamento del tossicodipendente autore di reati e le comunità terapeutiche chiuse*, Senato della Repubblica, Roma 1986, pp 263-264. I dati sono ripresi da KRIMINALVARD 1984-1985 (Annuario della Direzione Nazionale degli istituti di pena).

[20] Riportati da SGRECCIA E., *Bioetica e infezione da HIV*, in ID, *Manuale di Bioetica II. Aspetti medico-sociali*, Vita e Pensiero, Milano 1991, pp. 244.

[21] TEMPESTA E., DI GIANNANTONIO M., WEISERT A. et al., *Psychologie et comportements des toxicomanes dans le contexte du SIDA en Italie*, Sida e Toxicomanie, 1989[3], pp. 15-22.

[22] TEMPESTA E., DI GIANNANTONIO M., MATTIOLI T. et al., *Le Sida et la toxicomanie en Italie. Problemes passés et presents*, Sida et Toxicomanie (II), 1991[9], pp. 13-21.

[23] PUCCINI C., *Istituzioni di Medicina Legale*, Ambrosiana, Milano 1984, pp. 327-328.

[24] Ricordiamo a questo proposito che in base all'art. 95 c.p. si esclude in modo totale o parziale l'imputabilità " per i fatti commessi in stato di cronica intossicazione prodotta da alcool ovvero da sostanze stupefacenti. "

[25] BRUNI, MASELLI, *La paura di* ., pp. 94-98

[26] *Ibidem*, pp. 150-151.

[27] Vedi POZZI G., CONTE G., *La gestante tossicodipendente: riflessioni terapeutiche ed etiche*, Medicina e Morale, 1987[5], pp. 857-867; TEMPESTA E., CONTE G.L. et al., *The addicted pregnant women and her baby: a multidisciplinary approach*, Acta medica Romana, 1987, pp. 20ss

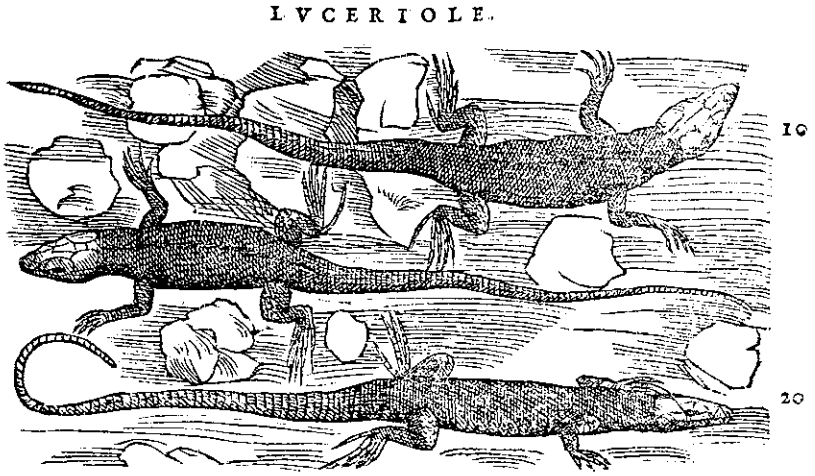
[28] DI GIANNANTONIO M., TEMPESTA E., *Farmacodipendenza e gravidanza*, Boll. Farmacod Alcoolismo VIII (2-3), pp. 230-264; FINNEGAN L.P., *Clinical perinatal and development effects of methadone*, in AA.VV., *Research on the narcotic addiction*, NIDA, Rockville M D., 1983.

[29] MAZZONI A., RICCHI E., *Prevenzione dell'infezione da HIV*, in SGRECCIA, *AIDS Problemi etici* ., pp 153- 154.

[30] ROSENFELD H., *Sulla tossicomania*, in AA.VV., *Stati psicotici*, Armando, Roma 1973; SOIFER R., *Psicodinamica della gravidanza, del parto e del puerperio*, Borla, Roma 1985.

[31] SGRECCIA, *Bioetica e tossicodipendenza*, in ID., *Manuale di Bioetica II* ., pp 196-203.

[32] Consiglio regionale Lazio - Provincia Roma - Comune Roma, *Arcipelago droga*.



PIETRO SOGGIU

Repressing Drug Traffic

During this meeting of worldwide importance, attended by so many important scholars, the cultural, health, and economic consequences of drug and alcohol abuse for men and the social fabric have been and will be considered and discussed. It is not easy, and often unpleasant, to discuss the criminal aspects of the drug trade, but we cannot ignore it since it is real and serious. I will try to do it in a way, considering that, for the first time, the whole world is concerned with the same problem: drug abuse. Nowadays every Nation is involved either in production, or refining, or in the transit or consumption of drugs.

Since the problem is international, its criminal aspects are international too, and international must be the reaction against an aggression that shows itself in every region in a different way, but everywhere with the cruelest aspects of criminal activity.

Considering the low costs of production of drugs and the amount they are sold for, the trade and sale of the different drugs is a highly profitable business and criminal organizations have more and more monopolized it during the last ten years, gaining 500 thousand million dollars every year, according to U.N. estimates.

The estimate of an annual turnover of about 500 thousand million dollars, (higher, as everyone knows, than the income of the worldwide oil industry) is undoubtedly trustworthy, even if we won't ever be able to confirm it as the exact amount, because of the peculiar features of this business. In fact, neither the drug addicted "victim," nor the drug trafficker "executioner" will ever reveal anything about it, for different but related motivations. By the way, it must be recalled that, besides the impossibility of estimating the exact economic profit of this illegal trade, it is also impossible to evaluate the global amount of production and trading. These limits are the consequences of the huge and often insuperable difficulties of some nations —especially those in the so-called third world— in evaluating the phenomenon, even within their own national borders, because of interior disorganization or ineffective administration offices. For example, nobody knows what is going on within the vast Brazilian Amazonian rain forest, or in the Lebanon valleys, or in some remote territories of the notorious Golden Triangle and Golden Half-Moon, and, only recently, after the political developments in East European countries, we became *officially* acquainted with the presence in the USSR of hundreds of thousands of hectares where marijuana is grown and their still unknown but certainly large production of cannabis.

This state of uncertainty is, of course, linked with another extremely serious aspect of the drug phenomenon: in fact, if we take a world map and colour in the nations that are drug producers and, on the same map, we superimpose another one where we have already indicated the nations involved in a war or affected by acts of terrorism, whether or not that situation is manifest, we will note that these two maps are exactly alike. This identity is a further confirmation of a situation we already hold to be certain: the drug trade is deeply linked with the illegal arms trade. Since armament costs are extremely high, they can be borne only through the sale of the most expensive goods in the whole world, that is, drugs, causing cruelty, disorders, death, and sorrow that can be noted by any attentive observer.

As a matter of fact, what I have pointed out until now is well known not only to "experts": there is a lot of more or less fictional, more or less reliable, and more or less seroius literature on the drugphenomenon, often presented by the massmedia in a way that underlines only its terminal aspects: chases, shootouts, violence, and confiscations.

These are not the *only* features of the drug trade and of its extremely serious criminal aspects; it is a real *firm*, with its budget, its means of communication, its banks, its schools and its market surveys.

After the drug glut in North America caused the price cut from 70,000 dollars down to 15,000 dollars for one kilogram of cocaine, it was through a careful and well studied market survey that criminal organizations looked for another market that would be *new* for consumption and *rich*, with a view towards high prices. Unfortunately, they have found it on our continent, where the two tons confiscated in 1986 have become eleven in 1990.

Further, like any other firm, the "drug industry" has founded its own schools, where it teaches people how to become a drug carrier and a hired assassin— i.e., it teaches them how to kill; like any other firm, the "drug industry" tries to take part massively in social and political life, and it has been successful since one of its members has been elected as deputy in a certain Parliament, it has bought and man-

ARMENIACO MINORE.



aged newspapers with a very wide circulation in order to influence public opinion, it has taken over the management of famous football teams in order to gain in popularity, it has taken part in the building industry at a high level, it has, among its " collaborators " Interior Ministers, Prime Ministers, important police officers—in a word, it has managed, and always will manage, to acquire a certain position in social structures, weighing two things each other: *plomo o plata* (lead or money). This was not an empty threat, since many Members of Parliament, statesmen, presidential candidates, hundreds of journalists, thousands of police officers and agents, defenceless people, farmers, etc., whose firm belief and personal dignity have led them to go against the blackmail, have been and still are killed.

Like any other firm that assigns part of its budget to information, " the drug industry " has done the same thing, but it has disseminated *misleading information*, succeeding, for example, in spreading the news that cocaine is not dangerous: on the contrary, as experts know, WHO considers it the most dangerous among all the known drugs.

This campaign had an extremely serious consequence: the increase in the number of new drug consumers, since cocaine did not replace heroin, which was the most widespread drug in Europe; cocaine consumers have joined the heroin consumers, causing further and more serious problems for police forces, since, as everybody knows, cocaine is a highly crime-provoking substance.

Besides, heroin abuse has constantly increased so that, in reference to confiscations, that are indirectly indicative of consumption, confiscations of heroin on the old continent increased from 2,000 kg in 1986 to 7,000 in 1990.

The subtle complexity of the drug-phenomenon, its economic, social, and criminal aspects, the considerable accrued wealth, the poverty of the peasants growing drugs, the low salaries earned by some police forces, the immense power of corruption, even at high levels, in various countries, can be summarized in the following figures. These may appear confused and in disagreement with one another, but they provide a better picture of the situation than many words.

At this stage, we have the following figures:

— world production of more than 450 tons of pure heroin;

— world production of 700 tons of pure cocaine;

— value of a dose of heroin in Pakistan: 3 dollars;

— value of a dose of heroin in Italy: 50 dollars;

— value of a kg of cocaine in the U.S.A.: 12-15,000 dollars;

— value of a kg of cocaine in Italy: 45-50,000 dollars;

— value of a kg of heroin in Italy: 50-70,000 dollars;

— value of a kg of heroin in the U.S.A.: 200,000 dollars;

— value of a barrel of ether (for drug refining) on the world market: 1,500 dollars;

— value of the same barrel in Colombia (where it is not produced): 12,000 dollars;

— average salary of a Pakistan policeman: 80 dollars a month;

— average salary of a Colombian policeman: 120 dollars a month;

— average salary of an occidental policeman: 20 times higher;

— estimated wealth of the most renowed Colombian drug trafficker, Pablo Escobar Gaviria: 3 billion dollars, or about 4 trillion *lire*.

This dance of figures, whose incoherence, as I said before, is only apparent, can provide a complete vision of the internationalism of the phenomenon and of the causes of the difficulties, often really tough ones, that must be overcome by the different national police forces. These have to cope with the cruelest crime, with technical and financial means differing from nation to nation and often insufficient. Other difficulties are caused by the decision of various economic bodies to take severe measures, for example, against the breach of bank secrecy or the decision of various international economic bodies that, responding to market forces, caused

substantial reductions in wholesale prices of some crops (sugar—64%, coffee —30%, cotton—3.2%, wheat —17%) over the last ten years, in a period during which, in extremely poor regions of the world, the conversion of cocaine and opium crops into the afore mentioned ones had just started, thus causing the failure of these initiatives, since many *campesinos* decided to get back to the previous, illegal production.

As a matter of fact, if we consider this general, and apparently distressing, situation from the present point of view of the police forces charged to prevent and restrain production, refining, traffic, and, in some nations, the abuse tout court of the various drugs, we can find some positive aspects as well, and they do not surprise us.

There is, as a matter of fact, a new international awareness of the extreme seriousness of the drug phenomenon and of its dreadful consequences, not only for individual human beings, even if it is an important aspect of the problem, but for the extremely dangerous political, economic, and social disorders of many nations producing drugs as well. These nations, even in recent years, suggested, as the only remedy to the drug problem, the reduction of consumer demand; now these nations are reversing their positions and the emphasizing the need to face the drug phenomenon on both sides: severe repression of drug supply and proper reduction in drug demand.

This change of opinion has been caused also, and maybe above all, by the fact that in a short time and in a dangerous way, as was easy to foresee, drug producing nations have become drug consumer nations (this change appeared dramatically in South America, Asia, the Middle East, and North and Central Africa as well, with a quickness that is causing serious emergency problems to the governments of those nations).

Besides the effort to restrain drug supplies and reduce drug demand, already carried out in the West (even if with a complicated series of failures and never definitive successes), there is increasing and more efficient activity by police forces to oppose the drug phenomenon in its criminal aspect even in drug producing nations, and now in these nations, that never accepted but never hampered the production of drugs, authorities have to face extremely violent reactions by traffickers and are paying a tremendous tribute of blood.

As a result of this new situation of respect for the law, international agreements have now been signed and ratified by all Governments, the ex-Member of Parliament has been arrested with his whole group; corrupt Interior Ministers and police officers have been deprived of all authority, arrested and prosecuted; newspapers are now managed by opponents of the criminal trade; illegal groups are declared to be such and their goods confiscated; many of their leaders have run away, died in shootings, or been handed over to the Authorities; the Head of a certain Government is now in jail, waiting to be brought to trial, and there is irrefutable evidence against him; money-laundering banks are now under controlled administrations; confiscations of already refined illegal substances, carried on in drug producing nations, have reached uncommonly large figures (a few days ago 2,500 kg of heroin were confiscated in Pakistan, the largest quantity ever confiscated, while in Colombia 60,000 kg of cocaine were confiscated, hundreds of refining laboratories dismantled, hundreds of tons of chemical products destroyed, and tons of airplanes and ships have been confiscated); elaborate procedures for police work, once impossible in various nations, are now carried on; and international cooperation has finally achieved reliable, concrete results.

With reference to this, we must emphasize that our country as well, with the recent Law no. 162 of 1990, conformed to the lines and suggestions of the above-mentioned international agreements and, for over one year now, it has been able to carry on more efficient and skillful repressive action.

The large number of successes achieved in Italy during this year of pursuance of operative procedures now granted by the law, set a record never attained before, with extremely high percentage increases, but, above all, the restraining actions are now displaying a *quality*

CIREGIE AMARINE.



improvement, in the vanguard in Europe, that could be carried on only through the procedures previously mentioned.

Any triumphal feeling would be out of place, since the criminal aspect of the drug phenomenon shows itself still in an extremely dangerous way and the unified, pressing, continuous action of the police forces is still very far from winning this terrible war against those that, *without rhetoric*, can be described as real death traders, since they *sell death*. The final victory is still far off, as I said, because, for example, this laboriously achieved international cooperation has been carried on, in contrast, for a long time now by criminal organizations.

I wish to conclude by recalling that the efficacy of the international actions carried out, is still hampered by a series of complications. I deem noteworthy two of them, and I would like this authoritative assembly to think them over.

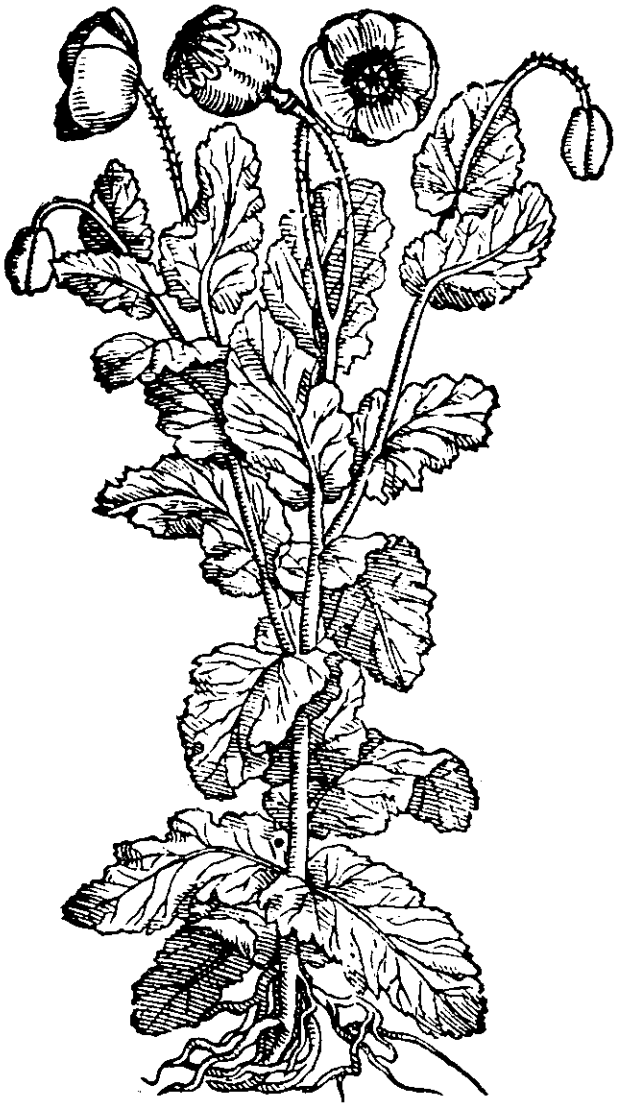
First of all, any possible solution is certainly not supported by the recurring assumption that we can subdue the phenomenon through utopian measures of free-trade that is unacceptable from the ethical point of view, drastically refused, and strongly opposed by all Governments internationally. This assumption is neverthless very dangerous even as a proposal, since it can be a suitable alibi for inertness and different forms of noncompliance and can be an element of lack of motivation at a time when *all* Public Bodies must join all their efforts at a national and international level.

The second complication is related to the police forces' restraining actions. Sometimes their efforts are in vain, since norms—above all penitentiary norms—are still based on an excessive, false, and counterproductive defense of civil liberties which leads to opposite effects since it leaves public opinion astonished, disconcerted, and, above all, alarmed about the frequency of releases of criminals that can go back to their previous, illegal activities even after having been arrested and proved guilty of terrible crimes (drugs, above all). This situation can cause a dangerous feeling of frustration also among police forces that are not highly motivated.

In any case, if we want to succeed in overcoming this *world* tragedy, we all must work for the future, avoiding any disposition to catastrophic thoughts, ceasing to rend our garments before the supposed inevitability of the drama, but carrying on our work in a more optimistic way, *all* — police officers, healthcare facilities and services, recovery and rehabilitation workers, but also legislators at the forefront. We must be aware that our struggle is a struggle for civilization.

Prof. PIETRO SOGGIU
General Director of the Central Office for Anti-Drug Services at the Italian Ministry of the Interior

PAPAVERO DOMESTICO.



FERRUCCIO ANTONELLI

Drug Addiction and Inner Suffering

In the face of drug addicts, psychiatrists and psychologists feel a therapeutic inability comparable only to that of cancer specialists faced with patients in terminal stages. When the drug addict is in a *free fall*, like an airplane going into a spin, no kind of science can help: there is only the hope in a miracle of providence.

But, fortunately, the problem of drugs begins far before the final stage called "overdose," which often is suicide and not an error.

The problem of drugs consists of different stages, as many steps of a ladder. Talking about drug addicts, it is necessary, if we don't want to talk in vain, to determine precisely the stage we will pay attention to. As we do when we talk about elderly people: the word "elderly" is only one word, but the elderly are many, differenciated by years. There quite a difference between a seventy- and a ninety-year-old person.

In this context, my reflections don't aim at the care or the recovery of the drug addict, but at the *prevention* of toxicomania. I'll emphasize every possible intervention in the initial phase of the "drug process." By process I mean the phenomenon that begins and "proceeds," often without turning back. I think it necessary to begin with two *preliminary statements*:

Firstly: in order to face such a serious problem as that of drugs we have to maintain a substantial serenity which allows *rational rather than emotional reflections*. Let's therefore avoid considering drugs as a demon, even if we can't forget that the drug phenomenon has been defined the "Third World War" because of its great number of victims on all continents. Whatever the kind of drug may be, it's not high tension electricity on the signboard that informs "Whoever touches the wire will die." Therefore: it is legitimate to be alarmed if a young person smokes a "joint," but there's no need for tragedy or terrorism. A study by Cancrini shows that out of one hundred individuals who get into contact with medicines similar to "drugs," only one becomes a drug addict; nine of them will be in an intermediate position where the medicine represents an element in order to create a balance with reality, and ninety of them refuse and do not seek other pharmacological experience.

Secondly: it has been proven, by now, that a *specific kind of personality in drug addicts doesn't exist*. This means that the drug phenomenon is not a hereditary or constitutional predestination. In other words, nobody is born as a drug addict, but becomes one. He becomes one not overnight, but over a period of years, as many years as he needs to build up a completely personal *lifestyle*.

In "these" years prevention has to be carried out with greatest effort in order to have good results. The drug phenomenon has deceitful and distant roots: it begins with quite superficial objections and deviations (in behaviour, friendships, and appearance) that stir up rather more smiles than alarm. It begins with "sniffing" sometimes, in the hope of feeling a little better in this world. But the alleged feeling of well-being is the beginning of the end: it's a bit like somebody who is too shy and begins to drink in order to increase his sociability, and then, in the end, due to the alcohol, he becomes an outsider, isolated and asocial more than ever before. When talking about years, I'm not referring only to the last years that precede the beginning of drug consumption. Somebody said, I think it was Napoleon, that the education of children begins one hundred years before their birth, because the education of a single person can't leave out of consideration the culture that prepares an excellent "habitat" for the future baby. I consider this concept the cornerstone on which it is possible to build up a society which is finally free from drugs.

Beyond these two preliminary statements there rises the problem of *Why take drugs*?—i.e., the substantial *motivation for drug dependence*.

Not only poverty: rich people take more drugs than poor people; they always did: two or three generations ago, the consumption of heroin was nearly a *status symbol*.

Not only families are at risk: often a young person takes drugs and his brothers don't.

Not only the lack of work or love. We all know different cases of drug dependence where there is a working place (which they may lose) it and also couples who take drugs (couples who are even happy).

The common denominator of the drug trend is a completely particular *style of life*, distinguished by a terrible *lack of values*.

Here the matter, the matter of "values," becomes difficult. I'll try to simplify. We know very well what *values* are and how naked and lost we feel after having lost so many of them.

But deep inside of us all the hope to reach better times hasn't vanished at all. To keep hope alive, we

have to believe in something, and, above all, when also faith becomes less strong. *To believe in something* is important in itself; it doesn't matter what this something is. This " something " is outside of us, but " to believe " is in us. The farmer who gets up in the morning at dawn to water the salad in his garden because he knows it will grow better is not a hero, but somebody who believes in something, who follows a goal, somebody who lives rather than let himself live. I don't want to seem rhetorical, but I would say he is a *man*. The example I mentioned may please us because it shows that at an individual level everything may become a " value "; on the other hand, we get depressed, because the banality of the example underlines the crack of traditional values which have always been the fixed points of our civilization. Some of these values were transmitted (in the same way as surnames) and accepted without any discussion, like honesty, respect, shame, duty. Others were accepted at a rational level, like marriage, fatherhood and motherhood, defense of life. The breakdown started with the last class of values: with divorce, abortion, euthanasia. There was created the concept of " Nothing is obligatory, everything is allowed ": the fatal culture of *disengagement*. The resulting objections to any kind of authority, permissiveness, the lawfulness of the illicit, the arrogance of the sly ones, the victory of flesh over the spirit couldn't be avoided.

The drug addict doesn't believe in anything. He isn't stimulated, motivated, attracted, or interested in anything. Not even in life. He knows that he risks his life by taking drugs.

But what is life? Only the right to enjoyment: if the enjoyment becomes less, the " good " is given back like a household appliance that lacks the qualities praised in the directions for use. When people are convinced that life is a continuous tasting and all becomes a matter of dishes to swallow down, it happens that one spits out life when a bitter taste arrives in one's mouth. A drug addict, before dying, wrote he wanted to " free himself from the suffering of life. "

And what is death? It is not anymore the fear of the final account, and therefore the verdict for eternity: hell or paradise—obsolete philosophy. It's only the bother of a party that finishes, and all friends go away. Reduced to these dimensions, death grows still smaller in watching television: in half an hour it is possible to see about ten murders. In this view, death becomes a banality, a cartoon, something not to think about, not to be worried about and much less be afraid about. At this point, logic is distorted, and death can even become a choice of life!

The appeal to the lack of values, to television, to society, etc ought not to be understood as an explanation or justification or alibi. The " *psychological matrix* " of drug dependence is not social hardship, but the subjective distortion of the perception of reality. The drug addict knows about certain values that would be available also for him, but he does not see them, does not feel them. He is like a color-blind person who knows that green is a colour, but can't recognize it. The drug addict leaves his friends of the same age (except his drugged friends) because he sees only negative aspects of the different realities (family, love, friendship, work), whereas the others seek also, and above all, the positive aspects. The others are full of projects, *achievements*, engagement. The drug addict isn't; he looks only for a not well defined kind of *freedom* but finds only *insecurity*. The problem is not the world, but his own *interiority*.

Drug dependence can be compared to cholera. If there is no vibrio, this disease doesn't break out, but the vibrio is harmless if there is no miserable dirty surrounding. In the same way, drug dependence doesn't occur if there is no drug, but the drug is harmless if there is no " culture " that offers a diabolic throne. The *drug addict's culture*: disengagement, desperation, emptyness, *interior suffering*— all these are the topics of my reflections. The interior suffering is the nhappy result of following the opposite direction, acting " against nature ": young people who prefer drugs, which are instruments of death and not of the future, of life, which would be logical and natural, act *against nature*.

Cholera has been overcome by public health. The drug problem can be defeated only by giving back to youth in the whole world the eagerness to learn, the will to act, the strenght to believe (believe in somebody, in something, above all, in themselves), the wish to bet on themselves, the pleasure of undertaking responsibility and not escaping, enjoying honesty and duty.

These are not fantasies or illusions. These are rules which always existed, and, following these rules, mankind has become cultured, mighty, and civilized. Only materialism doesn't obey these rules, offering false and contaminating hedonistic illusions

To conclude, I would like to counter the desperation of the *drug scourge* with the hope of a *post-drug* period which I don't see too far away.

I understand that supposing a *world without drugs* now seems utopian. But from a sociological point of view, this is possible and even probable.

The history of mankind gives us diverse examples of situations which at times seemed absolutely unchangeable. It suffices to recall the ritual immolation of human lives which ended with Abraham's arm held back by an angel. Recall the inquisition with its stakes and witches. In not so distant times we see the end of slavery, that had lasted for thousands of years. And furthermore, up to now, Europe had never lived a period of 40 years without wars. It is reasonable to suppose that peace has become unavoidable, except some sporadic and always possible interventions carried out by the so-called " military-police ". At the end of all these examples let's observe today's *institution of the family* and its unthinkable transformation of the " model " (patriarcal to nuclear) and the " roles " (from model-father to dialogue-father). The drug problem will also vanish. Those responsible sooner or later will manage to destroy certain cultivations. In the meantime, we all have to show our personal efforts—offering an example, showing engagement and trust—in the reconstruction of a culture which excludes drugs and all their predecessors: an authentic and real *culture of life*.

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President of the Italian Association for Psychosomatic Medicine

CORRADO MANNI

Acute Intoxication from Psychoactive Substances: Diagnostic and Therapeutic Aspects

The misuse of psychoactive agents, which nowadays we can find in all industrialized countries, unfortunately shows the characteristics of a real " epidemic. " Besides this, we can't forget that drug-dependence belongs to the field of social diseases. By this term we mean the circumstances where the consequences of the disease fall on society, generally, and on the group of persons around the " patient, " particularly his family and work colleagues.

These preliminary statements give an idea of the importance of the subject and the extent of efforts health facilities have to face dealing with all the aspects of a pathology we can term of multidisciplinary interest.

The multidisciplinary approach is, in fact, the only way able to supply satisfying results. Naturally, our specific competence in anaesthesia-resuscitation is related to the treatment of acute somatic syndromes. The treatment of subacute and chronic pathologies, of abstinence syndromes and psycho-cultural aspects in fact is left up to our colleagues of the anti-drug centres, of the departments of medicine and psychiatry.

We are acting in three major directions: through the *Anti-Toxic Centre* (1, 2) we intervene by telephone in all cases of acute intoxication in the national territory, and through computerized methods we provide diagnosis and therapeutic advice which include immediate first aid measures and special therapies to be carried out in hospital. Further on, through the *Service of Clinical Toxicology*, we intervene directly in cases of acute intoxication with the help of the " First Aid Service " of the Gemelli General Hospital. Finally, all the patients who are in serious condition and need intensive therapies are admitted to our *Resuscitation Centre*(3).

The Anti-Toxic Centre of the Gemelli General Hospital in Rome has provided consultation and medical assistance since 1971 in more than 50,000 clinical cases, with an increase from a few hundred calls in the first years to 4,000 calls a year. The telephone service operates 24 hours a day and is able to provide through a computerized data bank up-to-date information on about 9,000 products. All the calls, coming from health institutes but also from private citizens, get a satisfactory answer by the data provided. In this way, it is possible to identify the intoxication, to give the diagnosis, and to establish the proper therapy.

The number of telephone consultations referring to serious somatic syndromes of drug dependence has been 577. At the same time, at the First Aid Service, we have treated 100 patients with serious insufficiency of vital functions. In 31 cases admittance to the Resuscitation Centre was necessary. In fact, considering that our department of intensive therapy has an admittance of 700-800 patients a year, the cases of acute intoxication due to drugs present only a small percentage of this, which doesn't mean that it requires less effort, because the consumption of high doses of psychoactive drugs, or of " cut " doses seriously compromises life and requires intensive therapy in all its forms. The diagnostic techniques and the resuscitation therapies must be complete by adequate methods of clinical toxicology.

In this context we will review all the major acute syndromes deriving from psychoactive drugs, paying particular attention to the toxicologic and resuscitation aspects. It will not be impossible to cover all the fields of drug-dependence because of a lack of time. Besides, we thought it convenient to point out all the diagnostic and therapeutic aspects based on the most recent scientific achievements and on the therapeutic rules we used for the major acute somatic syndromes.

Despite the difficulties we found in estimating the cases of drug dependence and drug consumption in Italy (4), the data we have obtained prove the phenomenon still particularly important. The total number of drug addicts and cases of drug consumption can be given only after estimating the hidden quota, which is not always feasable. Furthermore, the kind of method used to carry out the estimate may influence the estimate in itself. For example, we get different numbers when evaluating the quantities of drugs confiscated by the authorities and the number of persons accused of dealing drugs, or even the simple notifying of people taking drugs from time to time. According to the data supplied by the Department of the Interior in 1991, (5) there is a progressive and constant increase of drug addicts. The number of drug dependent persons who use public health and social service facilities has increased from 22,856 in 1984 to 48,471 today. They present the "visible" quota, which, unfortunately, is much lower than the estimated total number in our country, about 300,000. The constant in-

crease in deaths related to drug consumption— from 1986 to 1990 it increased four times— proves the danger of this pathology. In fact, the 208 cases of death in 1980 have become 1,147 in 1990.

The experience of the Anti-Toxic Center of Gemelli Hospital in Rome consists only of 123 cases of drug misuse (cases of alcoholic intoxication are excluded). We should not be deceived by this number, because, in fact, it is to remember that the patients who come to the First Aid Service and also to big hospitals like ours make up only a small part of those who are moving towards acute intoxication. Of course, in recent years the consumption of psychoactive drugs, like cocaine, has shown an increase, although the phenomenon in Italy still doesn't reach the level of the United States. Anyway, heroin remains the preferred drug and is related to 90% of the cases of drug dependence. The data supplied this year by the Permanent Observatory for the Drug Phenomenon (5) have pointed out that in 98% cases of death where the cause could be found out, it was due to heroin. It is obvious, therefore, that acute opium intoxication remains a topic we can't neglect and we need to pay still more attention to (6). Serious acute intoxications can be determined by the consumption of high doses of heroin, morphine, methadone, and other by-products, like (meperidina) and hydromorphone.

As far as diagnosis (7) is concerned, recall the condition of deep coma, where, in the most serious cases, there is no response to the pain stimulus: bradypnea or apnoea, myosis. We have to remember that myosis is present in all acute intoxications due to opium, except with meperidina. The differential diagnosis has to exclude the consumption of other medicines for therapeutic or nonessential purposes, like pilocarpine, barbiturates, phenothiazine, fencyclidine, parasympathomimetic agents, and other types of intoxication that are due to organophosphorous insecticides. Further on, a possible pathologic condition of the central nervous system, like pontine hemorrhage, has to be excluded.

The therapeutic scheme used in our Toxicology Service includes these points:

1 - to maintain or to restore the opening of the airways and proper ventilation;

2 - the infusion of intravenous saline solutions, avoiding high quantitites, except in case of volume deficit;

3 - the administration of naloxone.

Acute intoxication by opium presents a classic field of application for antidote therapy in a receptorial sense (8). In fact, naxalone is a specific antagonist of opium without agonistic effects. This characteristic has made this antidote an irreplaceable diagnostic and therapeutic agent in patients with respiratory insufficiency and coma. The medicine has to be administered in adults and children with such insufficiency at an initial dosis of 2 mg intravenously, without considering their age and weight (9, 10). In the case of difficulties for intravenous access, the antidote can be administered in a sublingual or intramuscular way.

The most common side effect of naloxone is the opium abstinence syndrome (11). It is expressed in vomiting, agitation, stomach ache, sweat, and piloerection. Those syndromes, naturally, can only be seen in persons who are physically dependent on opium. The above-mentioned reaction lasts only a short time and seldom puts the patient's life at risk. On the contrary, in the baby-period this reaction can be extremely dangerous because it may lead to generalized convulsions



Another aspect discussed concerns the possibility of other unwanted reactions deriving from naloxone. In fact, there are several indications of isolated cases of pulmonary oedema, hypertension or hypotension, cardiac arrhythmy and arrest. These indications, we must say, are in open contrast to several studies done with naloxone in high doses in patients with hypovolemic shock, septic shock, and spinal trauma which have reconfirmed the relative security of this agent. Also administrated to healthy persons, high doses of naloxone have been shown to be without significant side effects, except some reactions in behaviour, at a hormonal and psychological level, if the agent is administrated in the highest doses.

As we mentioned before, the use of psychostimulating agents also increased in Italy during the last ten years. In this context, we may distinguish two groups: the first, historically speaking, the older one, due to alcohol intoxication, and the more recent one, spread over all the world, and originally confined to small ethnic and socioeconomic groups: cocaine and by-products.

The misuse of drugs similar to cocaine which we can observe today appeared rather late, compared to other drugs, but it's on the way to becoming a real social scourge (13).

In fact, whereas the epidemic peak of marihuana and LSD appeared in the late sixties, and of heroin in the early seventies, the explosive spread of psychostimulating agents took place only in the early eighties. It is difficult to explain this delay if we consider the traditional availability of the coca leaf and the wide-spread industrial use of decocainized leaves (for coca-cola).

As far as *cocaine* is concerned, the strong increase in the eighties may be partly explained by the high coca production (14) and by an emerging social middle class with its activities and ambitions as a re-

sult of a period of economic well-being. According to an estimate of the National Institute for Drug Addiction in 1989 (15), nearly 10 million people in the United States took cocaine at least once. Another unofficial estimate carried out as well in the United States in 1990 talks about 3 million habitual users. In Italy, an indirect estimate of the phenomenon results from the yearly quantity of drugs confiscated (15), from 64 kg in 1981 we reached to 798 kg in 1990.

Cocaine has had various denominations, such as "champagne of drugs" or "caviar of drugs" because of its complexity, intensity, and also transiency of psychotoxic effects. The American terminology is very picturesque as far as the slang used "in the street" is concerned (16). We find terms like "Blow, Cadillac of drugs, Crack, Dama Blanca, Flake, Gold Dust, Green Gold, Pimp's drug, Rock, Snow."

Let's now have a look at the clinical aspects of this toxicological emergency: unfortunately, cocaine intoxication creates serious problems in differential diagnostics as far as the different types of psychoactive drugs and also the organic and toxic-metabolic pathologies are concerned.

In fact, hallocinogens, amphetamines, fencyclidine, cocaine, and anticholinergic agents can all cause a status of acute psychosis and epileptic disorders (17). The major epileptic crisis is without any doubt the most striking phenomenon. There are not always witnesses when the crisis occurs, so sometimes we may be present only in the succeeding phase of psychomotor disturbance. Very often, in the First Aid Service we see an impressive sympathomimetic activation with systolic and diastolic hypertension, tachycardia with sporadic extrasystoles, hyperthermia and tachypnoea. The skin is sweaty, and red but without signs of cyanosis or jaundice. The accurate objective examination of the head is done in order to exclude a trauma. A wounded tongue leads to the assumption that there has been an unnoticed convulsive phenomenon. The pupils are mydriatic and react to light, the activity of the extrinsic eye-muscles is normal, and also the fundus, nystagmus is absent.

It is important to look for the nasal mucosa athrophy and the perforation of the nasal septum, as well as possible remains of white powder.

Thoracic and cardiac results are normal, whereas the abdomen shows extreme vivacity of the intestinal movements with a slight resistence to heart pulsation. It is also possible that biliary vomiting without hematic traces occurs.

From a neurological point of view, besides the psychomotor agitation there is also osteotendon hyperreflex plantar reflex in flexion.

The complications to be afraid of are the physiological consequences of the pharmacological effect of cocaine that include cardiocirculatory disorder, pulmonary edema, cerebrovascular stroke, respiratory arrest, acute infarct of the myocardium, and a major psychotic reaction. We can imagine the important role of the resuscitation specialist in these situations.

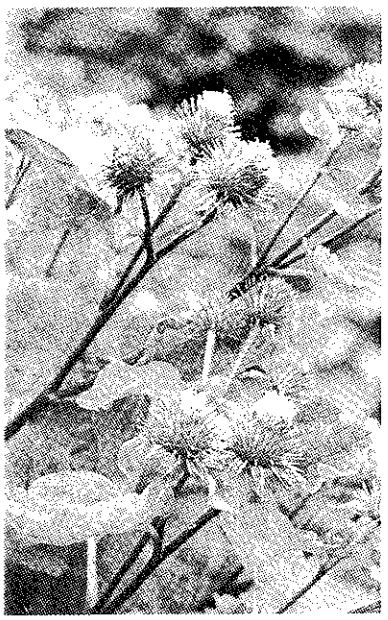
As far as cardiac complications are concerned, unfortunately they have become a rather frequent event. The acute infarct of the myocardium may occur in patients, even younger ones, with preexisting coronary defects and in cardiologically integral patients. Taking into account the strong vasoconstrictive effect of cocaine we may suggest that tachycardia, hypertension, and increased oxygen consumption of the myocardium play an important role in the formation of ischemia. Nevertheless, at the present state, the physiopathology of myocardic damage during acute toxicosis of cocaine is not completely clear. Some authors suggest that catecholamine-induced platelet aggregation is a major cause, but coronary thrombosis has occured only sporadically.

Another basic chapter of cardiac toxicity due to cocaine is constituted by arrythmies. Atrium tachycardia and ventricular tachycardia, premature ventricular beats, fast idioventricular rhythm, asistolia, and ventricular fibrillation are all possible events during the acute phase of intoxication.

The neurologic complications include, besides convulsions, focal neurologic deficit due to cerebrovascular stroke that seems to be generated not only by the sympathomimetic "storm," but also by hemorrhages, infarcts, and vasculi-







tis (vasculiti). Cocaine addicts show a bad regulation of the cerebral blood flow induced by continuous catecholamine stimulation. In these patients, finally, we see an increase in cerebral abscesses which is a direct consequence of frontal sinusitis.

Other complications due to cocaine misuse and important for resuscitation are grave hyperthermia, rhabdomyolysis, and acute kidney insufficiency.

At the hemato-chemical level there are no great alterations, except a slight respiratory alkalosis.

It is not a rare event to see, also in the First Aid Service, a spontaneous improvement of the symptomatology with a normalisation of subjective and objective parameters. It is obvious that in the face of a similar picture the suspicion of recent consumption of psychostimulating agents must arise, even if we can't exclude other metabolic causes, like hypoxaemia, hypoglycemia, deficit, thyrotoxicosis, and thiamine pheochromocytoma. Besides, it will be necessary to exclude alterations of the hydroelectrolytic balance, infections, exogenous toxicosis, and naturally the organic diseases of the central nervous system, like hematomas, neoplasms, embolism, abscesses, and contusions.

As we mentioned before, it may be difficult to establish a differential diagnosis on the kind of psychostimulating agent that has been taken. For example, how can a strong sympathomimetic activation be distinguished from an anticholinergic syndrome? An anticholinergic syndrome will be indicated by a paralytic ileus, warm and dry skin, and a vesicle globe. In the case of *hallucinogens and amphetamines* it is very difficult to distinguish the clinical picture, with the exception of a major persistence of psychological-behavioral effects. Fencyclidine instead produces bidirectional myosis and nystagmus. Crack, the street version of cocaine chlorhydrate that can be smoked, produces, compared to sniffed cocaine, longer-lasting psychological and behavior effects, so that generally a differential diagnosis can be done. As for opiates, in these cases it is necessary to adopt the most standardized therapy in order to approach patients in a correct and univocal way. Our therapy plan, for example, provides:

1 - immediate support of all vital functions, paying particular attention to cardiocirculatory and respiratory functions;

2 - succeeding intravenous infusion of 100 ml of 50% glucose and 100 mg of thiamine;

3 - administration of 2 mg of naloxone, especially if the consumption of " speedball " is suspected, a mixture of cocaine and heroin. In suspected " speedball " cases we need to be ready to face the excitant effects of cocaine as soon as the neurologic depression of the opiates has been antagonized;

4 - as far as therapy of the cardiovascular syndrome is concerned, arterial hypertension has to be controlled by vasodilatory agents such as nitroferricyanide, fentolamine, and nifedipina. Of course, beta-blockers are also indicated in these cases. In addition to this, it must be remembered that pure betablockers, like propanol, may encourage the action of alpha receptors, which further increases arterial pressure and worsens the vasoconstriction of the myocardium. For this reason we suggest the use of alpha and betablocker agents, like labetol. The use of calcium-antagonists may also be successful, considering the increase of cytoplasmatic calcium and of the hypercontractility of the myocytes;

5 - therapy of the neurological syndrome suggests the use of barbiturates with brief action, which are diazepam, haloperidol, and chlorpromazin. Some brief considerations on these drugs. We always advise the use of diazepam in case of convulsion, epileptic events, and all acute behavioral reactions. The agent haloperidol, on the contrary, which sometimes is used in persisting psychotic states, has to be used with extreme caution because of possible, even serious hypotensive reaction. The agent chlorpromazin also has contraindications, as it may hinder thermoregulation, cause diastonic crises, and lower the threshold of convulsions;

6 - in these patients it is absolutely necessary to monitor and treat hyperthermia. Physical means of control that monitor accurately the vital functions of the patient are preferred. The treatment has to be interrupted when the body-temperature drops below 38°C.

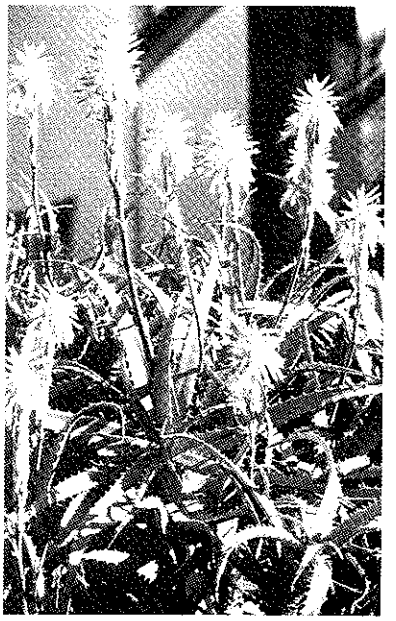
At this point we think it interesting to indicate other aspects of the misuse of cocaine and similar drugs that are important for toxicology and resuscitation. There are, for example, pathologies related to the very act of sniffing, that in the case of cocaine refer to " free base " and " crack " (18). The sniffing technique consists of deep inhalation of the drug and its preservation in the respiratory tract. This requires a great negative pressure generated against a " pipette " with a small diameter. The resulting overextension of the alveoli may lead to their bursting and as a consequence to pneumothorax, pneumomediastinum, and subcutaneous emphysema. Fortunately, those phenomena are generally self-limiting and tend to heal spontaneously, but there are also extremely serious cases with the bursting of the esophagus and the trachea. However, these patients have to be kept under medical observation for at least 48 hours during which several radiological tests of the thorax have to be done. A very particular problem is the transportation of enormous quantities of cocaine hidden in the human body for illegal purposes (19). The spread of this criminal phenomenon has lead to the identification of a real syndrome, called " the cocaine body packer syndrome. " Recently there has been pointed out a high death rate in cocaine dealers who have swallowed down plastic containers full of cocaine in order to avoid border controls. Those containers may break if they get into contact with the alkali of the small intestine and cause an immediate cardiocirculatory arrest. But even if the containers don't break, the medical treatment of these persons deserves some attention. It is, however, necessary to monitor the patient because there could occur an obstructive ileum, intestinal perforation, or at worst, the container could break. Let us remember that those containers can always be detected radiologically even if they are plastic.

There is an even more problematic situation when illegal quantities of cocaine are swallowed in primitive wrappings in order to escape a surprise check by authorities. In contrast to the case of the " body packers, " the resistance of those " packets " to intestinal secretions is very low, and the risk of bursting is high, and, besides, there is almost never radiological evidence. In these cases, we suggest an immediate gastrolysis and the administration of active vegetable carbon in multiple doses. In the suspected cases, even if they are asymptomatic, admittance to hospital in an intensive care unit is obligatory in order to deal with the possible bursting of the container.

Unfortunately, many cocaine users die 2 or 3 minutes after cocaine consumption and never arrive at emergency units. Whoever, instead, manages to reach the hospital " must " have the chance to survive. In order to gain this it is necessary that the medical staff should have correct and precise toxicological orientation. On the basis of the alarming prospects of continuously rising cocaine consumption, we believe it essential that the correct toxicological orientation be acquired on a large scale. And meetings like this, in my opinion, have the purpose of encouraging the interest of the medical profession and others in this toxicological pathology.

Finally, we will talk about alcohol. Today it is the only strong pharmacological agent, for which we can accept to a certain degree, socially and legally, " self-intoxication. " But unfortunately, alcoholism remains one of the major problems of drug misuse in western societies. Let's only mention that alcohol, directly or indirectly, causes about 10,000 deaths yearly in Italy (20). It is estimated that out of 1,716,143 accidents on Italian roads between 1971 and 1980, 566,322 have been related to alcohol misuse (21). There is no official proof for this, because in our country the control of alcohol in blood and exhaled air has come into force only recently.

As far as our experience of emergency cases due to alcohol misuse and reported to the Antitoxic Centre of Gemelli Hospital is con-



cerned, we can say that these cases make up a little less than 1% of all reported cases. This percentage is significant if we consider that our data bank contains more than 9,000 products. If we transform the percentage into numbers we are talking about 454 cases treated since the very beginning of our activity.

The large range of adverse reaction generated by alcohol misuse makes it difficult to give a simple definition of acute intoxication.

There is a series of different aspects of alcoholism, with several degrees of *psychological, nutritional, physical dependence and abstinence effects* (21, 22). The problem becomes even more complicated because often the consumption of alcohol is connected with the misuse of other psychoactive drugs (23) taken for therapeutical reasons, which consequently leads to synergic and antagonistic effects.

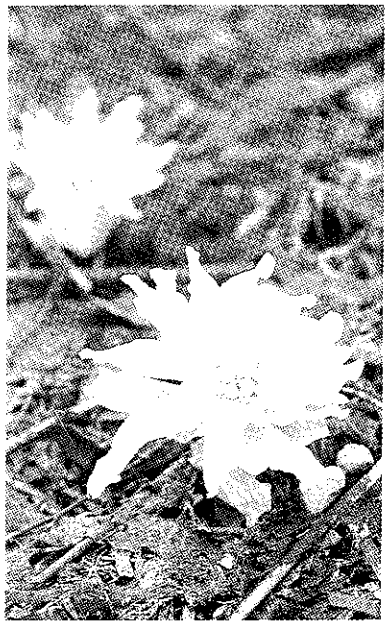
It is impossible to point out all the acute toxicological aspects of alcohol. Let us recall briefly the main emergencies due to misuse: the state of coma, the abstinence syndrome, and serious metabolic acidosis. Out of these three we think it useful to point out the latter because it is the least well known and treated phenomenon. It is our area of responsibility resuscitation specialists and toxicologists.

The identification of alcoholic ketoacidosis is a very complex problem (24, 25). It is important to know the clinical picture of the acute syndrome in order to get a first diagnostic point of reference.

The patient appears dyspnoeic and complains of nausea and vomiting, pains of the abdomen and the inferior joints. Often it is reported that it was impossible to ingest solid food during the last two or three days. His breath typically smells of fruit.

From an objective point of view the patient often appears malnourished, slightly hyperthermic, tachycardic, and normotensive. The skin is dry and thoracic, and cardiac results are normal. There is no peristalsis; liver and spleen are within limits. The neurological test is generally normal, whereas the introduction of a nasogastric probe often reveals an important gastric accumulation.

Also in the case of ketoacidosis we want to mention the diagnostic-therapeutical approach we use: in the first place, we have to take a blood sample immediately in order to determine the hematic level of the various metabolites, the hemochromocytometric values, and the equilibrium of the basic acid.



And really from the last analysis we will gain important diagnostic indications and therapeutic suggestions.

We also have to consider other differential elements with other conditions of metabolic acidosis and electrolytic disequilibrium which is possible in alcohol addicts. There is, for example, *ethylene glycol*, a substance that is contained in antifreeze products that alcohol addicts use casually as a substitute for alcohol. In contrast to the ethyl alcohol, the ethylene glycol is metabolized into oxalic acid without the formation of ketones, and the oxalate salts precipitate into the urines.

Methanol may also be consumed more or less casually as a substitute for the more expensive ethanol, or by chance in the form of a contaminating agent in a bad destilation or because of commercial fraud. Let us remember that differential diagnosis will rely on some characteristic elements of this kind of intoxication, like the alteration of the eye bottom, the absence of a smell of fruit in breath. The pharmacological treatment of alcoholic ketoacidosis derives directly from enzymic cellular physiopathology in relation to the glycidic metabolism. This shows that the basic therapy is the administration of glucose. There has to be added a therapy of cristalloid infusion because of frequent dehydration. Finally, I want to mention that we often find a condition that is similar to diabetes with reduced glucose toleration. This requires the administration of proper doses of insulin in addition to the glucose administration.

In conclusion, we can say that in this era of widespread misuse of several drugs, simple and linear toxicological problems are extremely rare. Often the physician has to distinguish psychomotor agitation caused by a large number of psychoactive agents from the agitation caused by the abstinence syndrome related to an equally large range of drugs. In these cases differential

diagnosis becomes extremely important because it determines a completely different treatment of the patient.

In other words, a wrong approach in therapy can cause enormous risks for the patient.

This is in fact the reason why we think it a duty of society to encourage the creation of more Antitoxic Centres.

The institute headed by me, as I mentioned before, has created a computerized Antitoxic Centre where all useful information is stored and available for the doctor in order to establish a correct diagnostic and therapeutical approach in these cases of intoxication.

The Centre is connected by a computer system to other Italian hospitals (Bologna, Genoa, Pordenone, Naples, Catania, Chieti) so that they have the possibility of direct access in brief time to all available clinical information.

We hope there will be a major development of this kind of network that finally corresponds to the demands of this widespread and apparently unstoppable pathology.

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Bibliography

1. S.I. MAGALINI: Il C A.V del Policlinico " A. Gemelli. " Il computer contro i veleni. Check-up Incontri, n. 35, anno IV, Febbraio 1986

2. S.I. MAGALINI: Problemi di informatica e di raccolta dati nei centri antiveleni. Atti del 14 corso di Aggiornamento in Tossicologia Milano 24-25-26 Novembre 1983

3. C. MANNI, S.I. MAGALINI, R. PROIETTI: Sistemi computerizzati in un Centro di Rianimazione e Terapia Intensiva. Medicina e Informatica, n. 1 1986

4. B DI SARRA, D BRADU, V. MORETTI et Al.: Evoluzione del fenomeno " Droga " in Italia e stima della diffusione della tossicodipendenza. Atti del 14 Corso Nazionale di Aggiornamento in Tossicologia Vietri Sul Mare 6-8 novembre 1987 pp 251

5. Relazione sull'attuazione del Testo unico delle leggi in materia di disciplina degli stupefacenti e sostanze psicotrope, prevenzione, cura e riabilitazione dei relativi stati di tossicodipendenza. Presidenza del Consiglio dei Ministri. Dipartimento per gli affari sociali 31 gennaio 1991

6. S.I MAGALINI, A ARCANGELI, F. CAVALIERE et Al : rabdomiolisi acuta in corso di intossicazione da eroina Recenti Progressi in Medicina Vol. 77, n 3, 1986

7. L.R. GOLDFRANK, E A. BRESNITZ: Oppioids. In: Goldfrank's Toxicological Emergencies 4th Edition Appleton & Lange International Edition 1990

8. P A. MOORE, B.H. RUMACK, C.S CONNER et Al ; Naloxone underdosage after narcotic poisoning Am J Dis Child 134: 156, 1981

9. L.R. GOLDFRANK, R.S. WEISMAN R.S., ERRICH J.K. et Al.: A dosing nomogram for continuous infusion intravenous naloxone Ann Emerg Med 15 566 1986

10. S.I MAGALINI, E. SCRASCIA, G. DE FRANCISCI: un antagonista puro nell'intossicazione acuta da oppiacei: il naloxone. Minerva Anestesiologica 45,1-2:71, 1979

11. M GOLD, A. POTTASH, D SWEENEY et Al : Opiate withdrawal using clonidine JAMA 243:343, 1980

12. W.R. MARTIN: Naloxone Ann Int Med 85:765, 1976

13. E. PAROLI: Tossicomania da cocaina e da recenti molecole psicostimolanti. Atti del 14 Corso Nazionale di Aggiornamento in Tossicologia. Vietri Sul Mare 6-8 novembre 1987 pp. 295

14. J F JEKEL, H. PODLEWSKY, D S. PATTERSON et A : Epidemic free base cocaine abuse. Lancet 1:459, 1986

15. Maier's cocaine addiction Addictions Research Foundation, Toronto, Canada 1987

16. E H ADAMS, N J. KOZEL: Cocaine use in America: Introduction and overview, Natl Inst Drug Abuse Res Manag Ser 61:1, 1985

17. F H. GAWIN, E H ELLINWOOD: Cocaine and other stimulants: Actions, abuse and treatment N Engl J Med 318:1173, 1988

18. J. ITKONEN, S. SCHNOLL, J GLASSROTH: Pulmonary dysfunction in freebase cocaine users. Arch Intern Med 144:2195, 1984

19. M.M McCARRON, J.D. WOOD: The cocaine body packer syndrome, JAMA 250:1417, 1983

20. Editorial: In dieci anni 100 mila morti per alcool in Italia. Bollettino dell'Agenzia di Stampa sui problemi dell'Emarginazione 1985; 4(6) 9-10

21. G. BERTAZZONI, M. CECCANTI: Le emergenze nell'alcolista Relazione al I Corso di Aggiornamento per Medici di Medicina Generale: " Alcolismo Oggi " Roma, 20 Febbraio 1 Marzo 1989

22. F. PERRANO: Intossicazione acuta da alcool etilico. Federazione Medica 39,863 1986

23. G. SEBASTIANI: Alcool e Psicofarmaci. Aggiornamento Medico 12,270, 1988

24. L. CREMONINI: Il coma ipersmolare non chetosico, in " L'urgenza in medicina interna " di A. RANDAZZO, Piccin Ed. Padova 1978, pp. 591

25. D.W. JENKINS, R.E. ECKEL, J W. CRAIG: Alcoholic ketoacidosis JAMA 217:177, 1971.

VALERY VORONTSOV

Survival of Mankind in the Face of Alcohol and Drugs

Your Eminence, Ladies and Gentlemen,

In the sessions of the Sixth Conference representatives of 101 countries around the world have taken part, and this is not by chance, for the problem of alcohol and drugs concerns not only a single country, but all humanity.

Lord, let there be no greater epidemics upon our sinful earth than those of alcoholism and narcomanias. Someone may possibly have the impression that medical problems are being discussed here, and this is true, for the problem of alcoholism and drugs concerns health care. Others will probably think that moral problems are being spoken of, and this also reflects the truth. It is not by chance that our Conference has been organized through the initiative of the Vatican thanks to the efforts of those who are at the service of the Church, for whom one of the greatest concerns is the care of man's soul.

We cannot exclude the possibility that someone has evaluated the series of papers as a discussion of cultural and political aspects of the problem. And this is also completely true, since the subject of our Conference presents a set of more complex problems.

The title itself tells us so: " Drugs and Alcoholism against Life. " The basic problem for the Conference is thus that of the survival of humanity in a state of aggression by alcohol and drugs.

Only a short time ago three swords of Damocles were hanging over mankind, three mortal dangers: nuclear war, ecological disaster, and the epidemic of alcoholism and drugs.

An nuclear attack could have destroyed humanity in the course of a few minutes. Fortunately, that was understood by the heads of the world's leading states.

Today, thank God, the nuclear danger has to a great extent been eliminated. But there are two others which not only exist, but are becoming more and more threatening. The continual pollution of the environment surrounding us may lead to the psychic and moral decline of humanity. As His Eminence Fiorenzo Cardinal Angelini has rightly stated in his introductory remarks, " The streets of our cities are full not of people, but of phantoms " Alcoholism and drugs at the outset treacherously destroy man's soul and psyche, transforming him into a phantom, and only later attack his body.

Is it not perhaps true that souls and minds in the vortex of alcohol and drugs have become the cause of the aggressiveness which has inundated cities, countries, and whole continents? And has not the obscuration of reason under the effects of these toxic substances perhaps been the origin of the blood, fratricidal conflicts in Europe, Africa, and Asia in recent decades?.

But alcoholism and drugs are not just problems of today. Even now alcohol and drugs, which are two relentless enemies of mankind, prepare to pick their rich fruits among the future, as yet unborn, citizens of the earth.

Our task, our noble goal, is to rescue those lost in the illusory world of drugs and alcohol to bring them back to faith, reason, and civilization.

Cardinal Angelini has exhorted us to do everything within and beyond our powers so that the prodigal sons and daughters will return to authentic spiritual values. And I am certain that this is precisely our sacred duty.

Not long ago I became aware of an activist public organization called People to People. I think that if the name of this organization became the motto of the whole civilized world, of the whole world of believers, of all who are concerned about man's destiny, we can then believe and hope we have succeeded in carrying out the task which time and life have placed before us.

Faith, hope, love, and science — these are the forces capable of helping the bewildered, the ill, and the weak; these are the forces which will save humanity! May God help us in this task which is so difficult, but so noble!

Prof. VALERY VORONTSOV
Advisor to the President of the Council of Ministers of the Russian Federation

L. ORTONA, A. ANTINORI

Drug Addiction and AIDS

Drug addiction represents, together with homobisexuality, one of the two main factors in the transmission of HIV-1 infection. The analysis of the data on AIDS cases points out that the use of drugs through intravenous injection [IVU] is the second form of transmission in the USA and Europe while it is the main form especially in the Mediterranean countries of Europe, such as Italy and Spain.

Data from CDC report the conditions of drug dependence in 30% of the cases of AIDS in America; this percentage rises to 33.3% if the cases of heterosexual transmission are also considered or those of paediatric age, in which the leading indicator is represented by the IVU partner or by the mother. Fifty-five percent of heterosexual transmission and 70% of paediatric cases in the USA appear to be related to drug dependence. Estimates of incidence, in the CDC, report 4.3 cases of AIDS in IVUs/100,000 inhabitants/year as an average of the national territory; the highest rate (> 10,000) has been recorded in the States of New York and New Jersey and in the District of Colombia. Fifty-four percent of the cases among drug addicts are reported in the northeastern states (New England and Middle Atlantic), where at least 50% of all AIDS cases, in contrast to the national data, are connected with drug use. Moreover, an increase was indicated in recent years in the USA in the number of cases of AIDS in such people; this evidence, that should reflect a real epidemic trend, could also be in large part explained by the introduction in the case definition of 1987 of new pathologies (ex: IBC) particularly frequent among drug addicts and supplying a presumptive basis for diagnosis, more suitable to a population with a low compliance.

In this regard Italy represents a peculiar epidemiological pattern, with the proportion of AIDS cases connected to the intravenous use of drugs clearly superior to the American or to the European average (30%). Seventy percent of the cases in adults (69.5%) among males and 72.7% among females are IVU, and 67.3% recognize drug dependence as the only way of transmission. 55% of heterosexual transmission (46% in male and 63% in female) involves occasional or steady sexual relations with a IVU partner; seventy-three percent of paediatric cases have acquired the infection from a drug addict mother or her drug addict partner. Overall in Italy, the percentage of AIDS cases transmitted by drug addicts exceeds 73%, with figures of 71% for males and of 83% for females.

Prevalence of the infection from HIV-1 among the IVUs

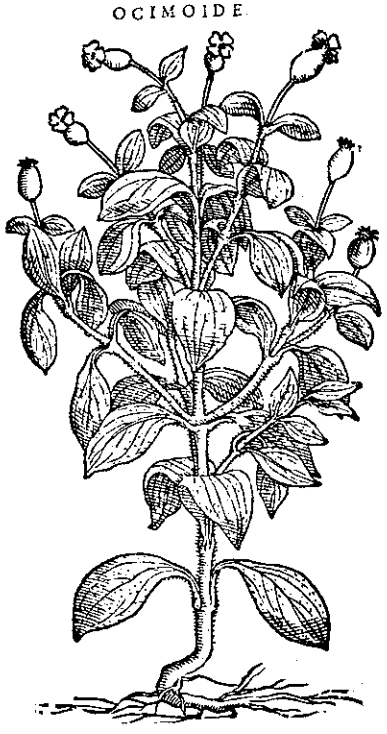
It is noted that AIDS cases represent only a small minority in population infected with HIV-1; this is because the incubation period of the illness swings between 7 and 10 years. The population of the HIV-positive drug addicts is therefor much wider, but also more difficult to quantify, both in the studies of prevalence and in those of incidence. One of the peculiar characteristics of infection by HIV-1 among the IVUs is the wide variability of prevalence in the various areas, with considerable differences even among the different countries, between urban and rural areas, as well different sections of the same urban areas. This phenomenon depends either on time differences in the introduction of the virus or on differences in behavior among drug addicts habits or on sexual customs. In the USA the introduction of the HIV-1 virus among the IVUs probably dates back to the mid-1970s, perhaps caused by homo-bisexual drug addicts, particularly in the area of New York. Wide differences in prevalence of the infection among the various American cities are reported in the different studies: 39% in New York, 17-29% in Baltimore, 28% in Boston, 7-13% in San Francisco and in Detroit, 10% in Atlanta, 5% in Miami and Los Angeles, 1% in Dallas and in New Orleans. The data are in contrast to those of other countries in the Hemisphere: 13-27% in Canada (Montreal), 44% in Argentina, 45-59% in Puerto Rico. The prevalence is lower in Australia, while the spread in some Asian areas is increasing to figures of 30-40% (Bangkok).

In European countries, multicentric studies have showed rates of prevalence of 50% in Spain, 37% in Holland, 29% in France, 23% in Sweden, 21% in Ireland, 19% in Germany, 18% in Denmark, 5% in Belgium, 3% in Portugal, 2% in Greece. However, such data could not be representative of the regional situation since the big multicenter studies do not always guarantee homogeneity in the input of data coming from the suburbs; more indicative are the data given by urban areas, with a prevalence of 6-13% in London, 37-43% in Amsterdam, 52% in Madrid, 67.7% in Barcelo-

na. Significant geographical differences in the precincts of the same region can be observed in Scotland, where one goes from 20% in Glasgow to 36% in Edinburgh.

In Italy the prevalence of infection by HIV-1 in the IVUs swings in various studies from 37% to 40% with wide regional differences largely due to the different periods of introduction of the virus, which probably appeared in Italy at the end of the 1970s in the urban area of Milan. Starting at 7.6% in Campania to 31% in Lazio, up to 55% in Lombardia and to 61% in Sardegna; the urban areas with the highest prevalence are Milan and Cagliari.

Although such data describe to a great extent the real situation, distortions are, however, possible, due not only to territorial differences, but also to the selection of the population considered, particularly because of recruitment methods. Most of the studies are on subjects treated with methadone, and may not adequately reflect the situation on the " streets, " both in terms of prevalence as well as in risky behavior. Another problem is linked to the reliability of the studies of prevalence in zones where introduction of the virus is relatively recent. The analysis of the spread of HIV-1 in a population of IVUs outlines a first stage of introduction and an initial diffusion which is followed, in a few years, by a second stage of rapid diffusion, with a drastic increase in prevalence; lastly a third stage or " plateau " is reached, with a stabilization of the prevalence rate. This trend is widely documented in studies done in New York between the first half of the 1970s and the first half of the 1980s, and confirmed also in Italy in the area of Milan. The factors that explain the phenomenon of stabilization of prevalence are mainly represented by: *a*) saturation of the subgroup with a high frequency of risky behavior; *b*) the decrease in the number of HIV-positive persons caused by those who interrupt use when no longer part of the active group (individual choice, methadone therapy) or those who die from AIDS, or from events or pathology related to drugs; *c*) entrance into the group of those with a recent background of abuse, mostly still HIV-negative; *d*) the adoption of practices to reduce the risks, resulting from both fear of AIDS and intervention programmes (tests, " counseling, " information campaign, etc.) Because of this non-homogeneity in the period, the evaluations based on the prevalence of HIV-1 infection may not truly reflect the trend of infection, which is an indispensable parameter in order to formulate suitable preventive measures; low prevalence could simply be the result of recent introduction of the virus and be accompanied by a higher rate of growth of the infection. The evaluation of incidence rates, particularly the incidence of the number of new seroconversions per year, appears to be a more suitable measure. Unfortunately, such data appear slight in literature, above all because of the difficulties connected to the low compliance of the drug addicts placed in group studies. There have been 0.5-2.7 new seroconversions/100 persons for a period of six months in the IVU males in Baltimore (2.6-4.4% in the female), the increase to 2-4/100 persons per year in New York, and to 4-8/100 persons per year in Bangkok. In Italy the incidence rate of new seroconversions per year in the urban areas of Rome and Milan stabilized at 7-9% in 1985-1987 and is now 5%, with a relatively stable prevalence over the last 4-5 years.

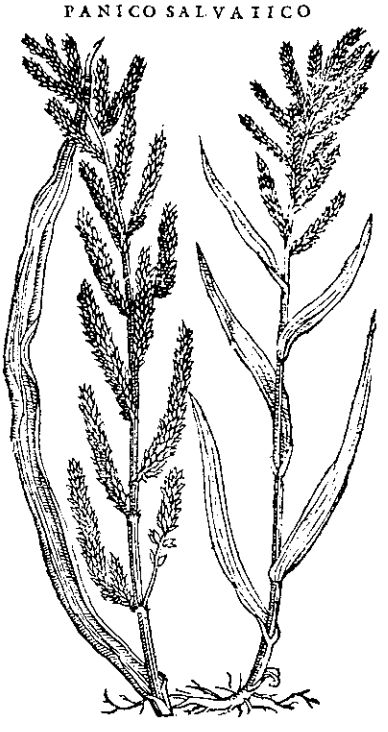


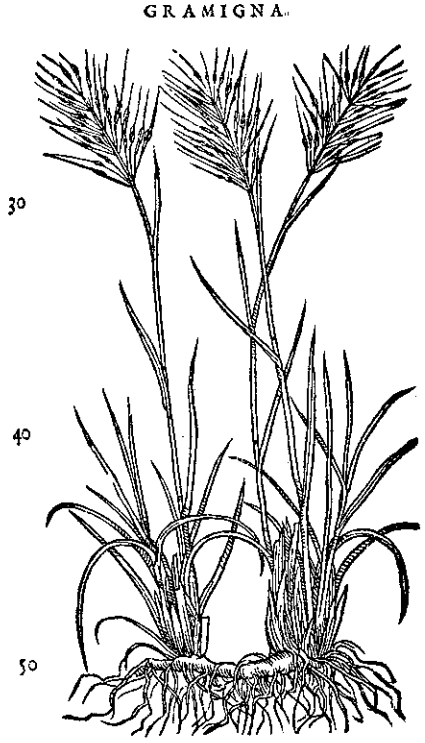
Transmission of HIV-1 and factors of correlated risk in the IVUs

The transmission of HIV-1 among drug addicts occurs essentially through the common use of syringes and needles. The quantity of blood generally injected corresponds to the amount of blood contained in the syringe, estimated at between 10 and 100ul. Studies on the titration of plasmatic viremia in HIV-positive patients at various stages of the infection, quantified as the dose infecting culture (TCID), allow the estimate of the residual viral charge in the syringe at between 0.6 and 6 TCID/ml for the asymptomatic IVUs and between 70 and 700 TCID/ml in those affected by AIDS itself since viremia in the plasma is at a clearly elevated stage. Several factors of risk have been identified, linked either to demographic or socioeconomic behavior, correlated to a higher probability of contracting the HIV-1 infection through drug dependence. Firstly, the length of the drug addict experience and the frequency of the practice, expressed by the number of injections over time, have been associated with an increased risk of infection. The practice of the common use of the syringe (sharing) is indicated in several studies as the fundamental factor of risk of transmission, even if prevalence significantly different from the infection among drug addicts exchanging or not exchanging the syringe has not been documented, presumably because of the high frequency with which such persons, either HIV-positive or negative, have a background of exchange in the span of their lives, making it difficult to demonstrate a relation of cause and effect. It is likely that some quantitative variables linked to the common use of syringes are more strictly correlated with a major risk of infection: among these are the number of injections made with exchanged syringe in the span of one month, the percentage of injections with used needles, the percentage of injections with needles

exchanged with strangers or acquaintances instead of friends, the number of persons participating in the practice of exchange. The frequency of exchange is generally different among the IVUs, in relation to geographical and sometimes racial-ethnic factors. These figures amount to 70-100% in the States, 71% in Italy, 35-62% in London, 43% in Spain, 30% in Switzerland. The variability may also depend on the period in which the study was carried out and thus in this last period a general but irregular tendency in the decrease of such risky behavior has been registered either spontaneously or by following prevention programmes. The exchange of syringes began generally within the first year of abuse; the reasons put forward for resorting to such practices appear generally rather vague and are primarily concerned with the " necessity, " the " convenience, " and only in 10% of cases, the " habit. " In the sphere of exchange, there has been evidence of practices that are particularly risky, among which, is the use of common material for the preparation of the injection, the practice of " booting " (aspiration of blood into the syringe so as to dilute and recuperate even a minimal quantity of drug), the direct contact of a syringe with another contaminated syringe in the mixture of heroin and cocaine in a " speedball. " Particularly risky are the " shooting galleries, " underground places common in the northeastern part of the States, where it is possible to rent the material for injection that is subsequently reused by others, allowing a wide and rapid spread of infection. In the shooting galleries of Miami, where the prevalence of the infection among the IVUs is of 50%, the presence of anti-HIV-1 antibodies has been noted in 10% of the available syringes, with a maximum of 20% for the syringes with visible blood; a clearly higher percentage of contaminated syringes has resulted from enquiries carried out with the PCR. The risk of contracting the infection from HIV-1 is significantly higher in persons with a high percentage of injections in the shooting galleries. Another important element in transmission through exchange of syringes is the promiscuous use of the water needed to dilute the drug and to clean the syringe after the injection, either in private use or particularly in the shooting galleries. Moreover, and in spite of the practice of disinfection, 63-96% of drug addicts are shown to be devoted to exchange; in most cases disinfections are made following inadequate procedures, and only in 14% of cases hypochlorite of sodium is used, although it has been demonstrated that not even the use of such methods can guarantee a protective effect. Among the demographic factors, age seems to have a certain significance. Studies carried out in Italy have indicated a minor risk for the IVUs under 20, even if such data are not in agreement with those of other European countries; it is possible that the younger person is also the one with a shorter background of addiction and consequently potentially open to the virus, even if there are demonstrations of higher frequency of risky behavior among those with a recent background of abuse. Sex does appear to influence the probability of transmission, and the differences of outstanding prevalence appear more in relation to geographical variety and the presence of other concomitant risk factors, particularly those related to sexual behavior. The number of cases of AIDS in women is, however, increasing in the States and in other countries, particularly in relation to drug addiction, and such a phenomenon brings about the immediate reflection of mother-fetus transmission with current risk evaluated at 25 to 35% of infection for the new-born in cases of HIV-positive mothers. Supervision studies carried out on women in labour through the screening of the anti-HIV-1 antibodies in the blood of the new-born have estimated 1800 new-born HIV-1 positive in the USA and 200 in Italy in 1988. The higher rate of prevalence of HIV-1 among all the new-born in the states has been documented in the areas at high diffusion of infection among the IVUs, such as New York (5.8/1000), District of Colombia (5.5/1000), and New Jersey (4.9/1000). Ethnic-racial factors also play a nonsecondary role, above all for reasons linked to the cultural and social background, and to the different habits of the drug addicts. Several studies in the States have described a higher prevalence of the infections of HIV-1 among the black and Hispanic populations. The cases of AIDS resulting from the transmission linked to drug dependence represent 52.7% of the total cases among the blacks and 55.7% among the Hispanic populations, but only 16.3% in the white population, in which homo-bisexual transmission prevails. Studies of prevalence carried out in New York, in the Bronx, have shown signs of infection of HIV-1 in 49% of the blacks, 47% of Hispanics, and 17% of the white drug-dependent population. The risk associated with the black or Hispanic race is highly significant and probably depends on factors such as the frequency of exchange of syringes with strangers, the use of shooting galleries, the consumption of cocaine, low income level—all of these represented in such ethnic groups.

The socioeconomic factors related to the standard of living, to the education level, to the presence of a job activity have been in various studies connected with the risk of infection by HIV-1 in such popula-





tions; in this regard, geographical nonhomogeneity linked to social and cultural differences is, however, an underlying factor in drug dependence in various countries. Even if the passage of the virus through the common use of the syringe is certainly the prevailing cause of transmission of the infection of HIV-1 among the IVUs, a role not at all secondary is attributed to sexual transmission. The level of sexual promiscuity is in fact high in this group; 83-87% have multiple partners and in 39-42% the number of partners is 10. High risk is frequent in the adoption of sexual practices, above all in the coexistence of homosexual habits; also high is the recourse to prostitution (40-85%), particularly in the female sex. Moreover, such sexual behavior appears more risky than behavior strictly linked with drug addict practices, such as the exchange of the syringe. The presence of a drug dependent sexual partner is associated in American studies to a major risk of infection, even if such results are not completely confirmed by surveys carried out on heterosexual couples with at least one seropositive partner, where the infection of the partner is rare if he or she does not use drugs; a high number of heterosexual partners with a background of abuse of drugs is a predictable factor of infection in women and the only risk factor in the ex-IVUs with a long background of interruption of the abuse of drugs. Recent studies carried out in Baltimore have identified different risk factors in the two sexes (exchange of syringes and homosexual relations in men, background of sexually transmitted disease and absence of recent methadone treatment in woman), suggesting that epidemiology in such groups can be sex-specific. Prospective surveys carried out in Holland have also indicated risk factors in the presence of new usual IVU-partner and in prostitution; two more factors associated with seroconversion. The prevalence of infection from HIV-1 among drug dependent prostitutes changes from 15% in San Francisco to 37% in Spain, against respective values of 1.8 and 2.8 among non-drug-dependent prostitutes. Italian studies have documented a frequency of prostitution higher among HIV-positive IVUs than among seronegative ones; however, surveys in the States have not demonstrated a prevalence significantly different among nonprostitutes and those with a high frequency of mercenary relations, indirectly suggesting that sexual causes are less important than the exchange of syringes in the acquisition of the infection. Another important element is furnished by the high percentage (53-78% in American studies, 62% in Spain) of IVUs with occasional or stable partners not addicted to drug dependence as a potential factor of diffusion to wider population strata. A strong relationship is shown between sexual transmission and cocaine abuse, and more recently crack.

Cocaine consumption, clearly increasing in the States, seems to be partly linked to demographic and behavioral factors (black or Hispanic races, high frequency in exchange of syringes, use of shooting galleries) strictly connected to infection of HIV-1. Studies carried out on consumers of crack and cocaine have shown a high frequency of sexual relations at high risk, of prostitution, of sexually transmitted diseases. In the States (San Francisco, Miami) women who are not IVUs but with a background of cocaine and crack consumption have rates of prevalence of 7-16%, particularly high in those who practice prostitution; the consumption of crack and cocaine represents in such places an independent risk factor for contraction of infection by HIV-1 or of sexually transmitted diseases.

Inmunological and clinical aspects of infection from HIV-1 in the IDUs

Numerous in vitro and in vivo tests have reported complex and somewhat contrasting effects of narcotics on the immune system. We ourselves have examined such aspects since the second half of the 1970's. The use of heroine reduces the percentage of the rose-E formation of T lymphocytes, both total and activated in peripheral blood; such deficiency could be connected to alterations of the lymphocyte membrane at sulphidrylic bonds. The percentage of the CD4+ cells

does not appear, however, significantly reduced in the IVUs, if not in presence of the infection from HIV-1. A deficiency of the accessory function was also supposed, through a block of the antigen presentation process on the part of the autoantibodies directed against the HLA molecule of Class I and II present at a high rate in the heroine IVU serum. The practice of frequent and repeated injections of heroin and hereogenous antigens may encourage evident lymphocyte functional alterations. The lymphocyte proliferative response after stimulations with *monoclonal* antibodies (MAb) anti-CD3 proved significantly reduced *in vivo* in IVUs subjects with 50 injections per month, independently from the state of the infection, in the presence of a normal response to PHA. The T-cellular response to PHA during which the memory cells are activated as well as those " naive " CD29-/CD45RA+ The decreased proliferative response to MAb anti CD3 in the IDUs could be the expression of a depletion or loss of selective function at the expense of the T memory cells. The deficit of the underpopulation of the memory compared to the " naive " one is also characteristic of the first phase of the infection by HIV-1 and can be further worsened in the presence of repeated injections of heroin.

The in vivo effects of cocaine on the immune system appear almost paradoxes compared to those of heroin. Different doses of cocaine in experimental animals are able to increase the primary B-lymphocitare response at antigen T-independent, as the polysaccharide *pneumococcus* of type III, probably both for a direct stimulation of the B cells and for a deficit T-suppression activity. The results appear different concerning the response to T-independent antigens, where there is observed an increased response at low concentrations, but a depressive effect at high doses (5mg/kg); the behavior of the low doses can be traced back to a fall of the T-suppression activity, whereas the depressive effect of the more elevated doses can be explained by a deficit of the T helper function or of accessory activity. Moreover, in cocaine drug addicts with a large number of injections the proliferative response is reported to have increased, induced by MAb anti-CD3, probably for antagonist effects with the *opiates*. Therefore, it was assumed that the abuse of cocaine may induce both a sequential loss and a selective stimulation of various lymphocyte underpopulations; various studies suggest the presence of an activation of the CD4+ cells, perhaps also for a dysfunction of the CD8+ section. The state of activation of CD4+ is a fundamental requisite for the passage of the virus from the latent phase to the active transcription phase with persistent repetition, and in this key the cocaine could act, in the positive HIV drug addicts, as the inductor of cellular destruction systems and cofactor in the progression of the infection itself.

Furthermore, various studies have been carried out to evaluate the immunological function of negative HIV drug addicts under methadone treatment to test eventual influences of the methadone on the immune function. Clear phenotype alterations were reported in vivo. Firstly, an increase of the subset CD4+/CD29+ could represent a preferential target of the precocious phase of the infection from HIV-1 and its relative increase an additional risk factor of seroconverison. Furthermore, in the subjects under methadone treatment a suppression was reported of the lymphocyte function expressed by a deficit proliferative response to mitogens like PWM and PHA; the NK activity was also reduced.

The presence of considerable immunological alterations in the IVU does not seem to condition a more rapid progression of the infection in this group, compared to subjects with different modes of transmission. The presence of different patterns or a different effect of the opportunistic infections typical of AIDS is most probably connected to epidemiological factors rather than differences in the below immunological picture. The percentage of progression of seroconversion to AIDS in the IVU is reported to be about 21% within 6 years, with a progression period similar to those documented in the homo-bisexuals, but slower than those of subjects infected via transfusion. Studies carried out both in the US

CINOGLOSSA VOLGARE FIORITA.



and in Italy have pointed out a high prevalence among positive HIV drug addicts of pathologies like TBC, bacteric infections producing pneumonias and sepsis by pyogenesis, oral and esophageal candidiasis, cryptococcosis, and brain toxoplasmosis.

Since 1985 in the US an inversion of tendency has taken place in the decline of the annual incidence of tuberculosis registered in the previous years, in correspondence to the diffusion of the infection from HIV-1. Extrapulmonary TBC was reported in 5% of patients with AIDS in New York, and studies done in Miami and San Francisco documented in 30% of patients with TBC a prevalence of infection from HIV-1. This percentage rises to 46% in areas like Brooklyn in New York, where drug addiction is widespread; furthermore, TBC represents the emerging pathology of AIDS in those countries, like Italy and Spain, where prevailing modes of transmission are linked to the use of drugs through intravenous injection. The more relevant characteristics of TBC from HIV-1 are constituted by: *a*) possibility that the TBC precedes by months the diagnosis of AIDS, also affecting subjects with a relatively light immunological deficit; *b*) high frequency of extrapulmonary forms and disseminated and atypical pulmonary manifestations; *c*) recent emergency of microbacterial *stocks* resistant to the common antituberculate drugs. Of great current interest is the problem of an appropriate strategy of chemoprophylaxis, particularly in drug addicts participating in the methadone treatment programme or in therapeutic communities, among which compliance appears higher.

Among the bacterial infections of the HIV-positive patient sepsis occupies an important place, particularly in those sustained by Staphylococcus aureus or by negative gram germs like Pseudomonas aeruginosa. They represent frequent pathologies in the drug addict, independently of the presence of the HIV infection, and in the patient with AIDS they can assume the nature of extreme gravity, both for immunological deficiencies at the expense of PMNL or of the humoral antigen-specific immune response, and for the establishment of a neutropenia primitively connected to the effect of the virus or secondary to the myelotoxic action of *antiretroviale* or antineoplastic chemotherapy.

Among the tumours, Kaposi sarcoma is rare, for reasons that are not yet completely clear but probably linked to drug addiction. In Italy in 1989 HIV-related pathology represented the most frequent cause of hospitalization, being at the root of 24% of hospitalizations in 1988 and 33% in 1989 (viral hepatitis with 25% and 23% of the case respectively). An increase of tumour effects among the IVUs was further reported in certain Italian regions.

Since 1989 AIDS has been the first cause of death among drug addicts, having surpassed overdose, which represented the principal cause in the years 1980-88. The global mortality of the IVUs, according to the Italian studies, was 13% in 10 years, with a relevant difference in 7 years among HIV-positive (14.3%) and HIV (2.1%) negative. The methadone treatment programmes have an influence over the decrease of mortality from overdose but not over mortality from AIDS.

Precautions in the behaviour at risk and diffusion of HIV-1 among the IVUs

The behaviour at risk linked to drug addiction, in particular syringe exchange, constitute the main factors in the transmission of infection from HIV-1 among the IVUs, and therefore represent the principle target of preventive strategy.

The AIDS epidemic itself has induced behavioral changes in drug addicts, although with differences from zone to zone. Studies done at Edinburgh reported a highly significant relationship between rate of seropositivity and the starting year of drug addiction, reaching a peak in the years 1980-83; even syringe exchange appears to be a habit connected with subjects who began to abuse in recent years (89%), proving significantly less frequent in those subjects who began in the years 1986-88 (62%).

This trend suggests a different behavioral pattern during the first years of the epidemic. In the same study 33% of the IVUs examined revealed the suspension of abuse during the previous 12 months and a clear tendency to decrease use of

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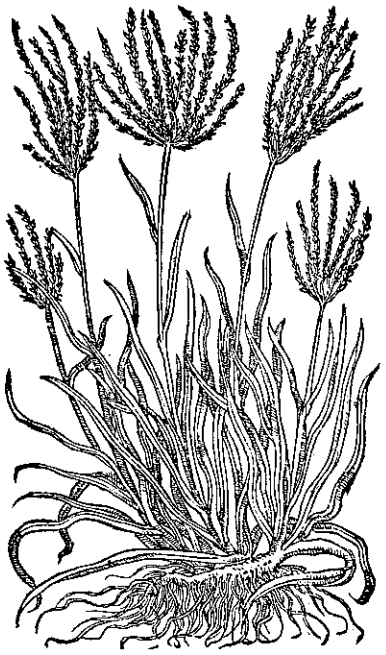

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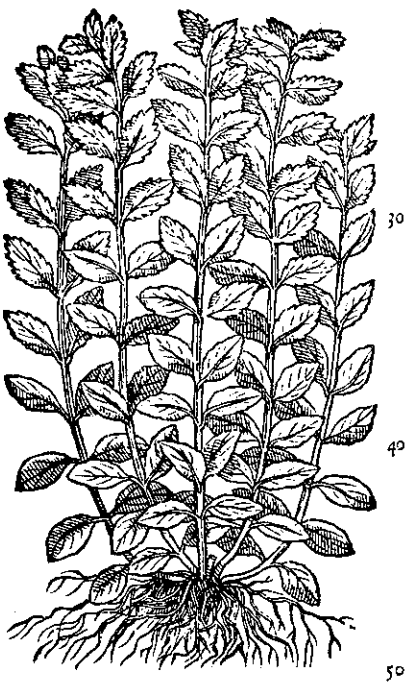
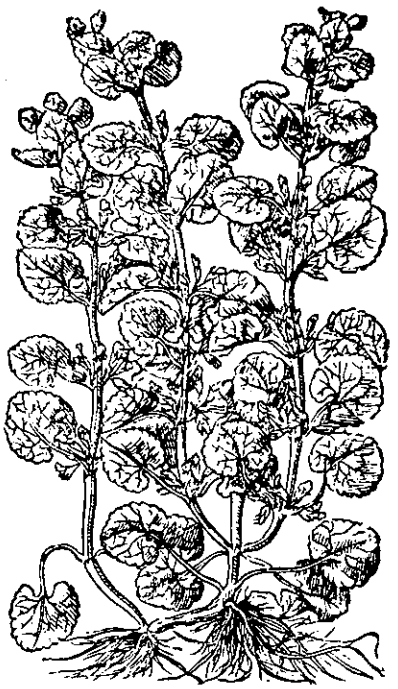


heroine, with evident consumption of *buprenorphine*, cocaine, and especially oral drugs (methadone, amphetamine, barbiturates, *diazepam*). Although the experience of Edinburgh cannot be totally transferred to other realities with different social and cultural backgrounds, a general tendency towards decrease of behaviour at risk is reported in several countries, even if often it is difficult to determine where such variation is autonomously decided according to the changes in lifestyle or fear of infection and where, instead, it is subordinated to preventive programmes. Another factor of potential confusion is the fact that the major part of the behavioral studies are carried out on the IVUs in treatment or detoxication programmes, which constitute not more that 20-30% of the entire population, with an inevitable selection of subjects that are more motivated to change. Furthermore, this group is generally composed of older drug addicts with at least one year of abuse, and many inquiries reported that in the first year of drug addiction behaviour at high risk is more frequent. The studies done in recent years, however, register a global fall of the syringe exchange habit, whereas clearly less influenced is sexual behaviour.

Attempts at prevention now being carried out are essentially divided into three levels: *a*) " therapeutical, " mainly represented by programmes with methadone treatment; *b*) " informative, " constituted by the realization of tests on volunteers, by " counselling " on the risks of transmission, and on measures to prevent them, educational programmes on selected people; *c*) " operative, " based upon programmes of syringe distribution and " syringe exchanges, " especially used in countries where there exists a restriction on the selling of syringes.

Many are the problems related to the evaluation of the efficacy of such interventions. Besides the above-mentioned groups of people at risk, the major difficulties concern the period of evaluation, since it has been proven that it is not as difficult to change habits but rather to maintain the pattern of safe behaviour. Furthermore, most tests are based upon the formulation of questionnaires with evaluations based on *self-reported*, subjective standards. Markers have been suggested which indirectly confirm the answers to the tests, like the prevalence of infection from HBV and the determination of multiple blood-groups in the residual blood in the syringe as measures of the level of syringe exchange, the effect of sexually transmitted diseases in the studies on the changes in sexual behaviour, urine doses in the evaluation of the incidence of drug consumption, but none of these meets the necessary standards of reliability and feasibility.

The maintenance programmes with methadone have been widely studied in order to evaluate changes in behaviour at risk. The IVUs on methadone treatment have shown in several studies a reduction of drug use and change in the principal behaviour at risk. A study with a 3-year follow-up carried out in New York, Philadelphia, and Baltimore documented a suspension of abuse in 71% of the cases who followed the treatment for over one year, compared to 18% of those that had interrupted treatment; syringe exchange was present in 10% of those treated, compared to 27% of those off treatment. The greatest probabilities of reduction of heroin use in the US are reported in cases of longterm maintenance, where 74% efficacy is registered, compared to 68% in < 3-month residential treatment and 56% in detoxication programmes. From data for the San Francisco area, the habit of syringe exchange in the IVUs included in short-term detoxication treatment (28 days) was present in 50% of the cases in 1986 but 28% in 1988. On the other hand, several sources report a tendency to reduce or eliminate abuse and/or the habits at high risk during the first 6-12 months of the maintenance programmes; after this period resumption of heroine use and exchange is observed. Less efficient are the methadone programmes for the modification of sexual behaviours at high risk.



The indirect efficacy of treatment programmes for prevalence of infection from HIV-1 was widely documented in New York, where the seropositivity varies from 27.2% of those following treatment over a long time to 45.9% of the newcomers. Swedish studies reported a protective effect linked to methadone programmes: 3% of HIV-1 prevalence in those enlisted in 1983, 16% in those enlisted in 1984-86, and 57% in those of 1988. In Switzerland the percentages of seropositivity differ from 12% in subjects enlisted before 1980 to 47% in those of the years 1986-90. Recent studies reported a significant difference in prevalence between treated subjects and non-treated ones in New York (47% and 50%), Bangkok (34% and 40%), and Rome (20% and 25%). The effect of a methadone programme on the progression of seroconversion to the full-blown disease was evaluated in perspective studies which gave somewhat discordant results; in Switzerland the percentage of progression within 3 years proved to be 24% in the methadone group and 41% in that with persistent abuse; however, such results were not confirmed in other countries

Counseling is a fundamental moment of a preventive strategy, both as isolated intervention and as completion of other methods. There exist numerous signals on the general

inefficiency of methadone treatment programmes, if not accompanied by counseling or appropriate educational and informative interventions. The simple test for drug addicts is not alone an efficient measure, either for the prevention of behaviour at risk, or for the control of spreading of HIV-1, if not combined with counseling strategies or information aimed at the public. Studies carried out in certain US urban areas (Miami, Chicago, Philadelphia, Houston, San Francisco) show in a IVU sample off methadone treatment the efficacy of individual or group counseling for reduction of certain behaviour at risk. After 6 months' intervention the percentages of the reduction of drug use drop to 28-40%, with 16-47% suspensions; the habit of syringe exchange went from 47-28% to 12-53%, and constant use of disinfection of the instrument from 3-36% to 11-43%. Random tests carried out in San Francisco to evaluate the efficacy of 50-60 minute individual counseling on the modification of syringe exchange or sexual behaviour at risk reported a relevant reduction of both habits.

As an alternative to counseling, there exist educational campaigns aimed at certain target populations, which presently constitute one of the more powerful hard-to-implement instruments. As a target of an information campaign there are the general population, subjects who are not drug addicts but have high chances of becoming one, young-adult subjects resident in areas of high endemic drug addiction, the IVUs involved in treatment programmes, those " on the road " to treatment, drug addicts' sexual partners, those assigned to counseling, therapeutic communities, prisons, or other detention facilities, and health workers. Therefore distinct educational programmes are necessary, reflecting the sensitivity to the problem of the various groups taken into consideration. The basic arguments of an information campaign concern behaviour at risk linked to drug addicts and to the risks connected with them, risky sexual practices, epidemiology, and the clinical picture of infection from HIV-1. It is difficult at the moment to establish the efficacy of this kind of intervention where it has already been undertaken, also due to the objective difficulty of evaluating efficacy independently of other remedies like treatment programmes or spontaneous behavioral changes encouraged by fear of the epidemic.

Many intervention plans have been focused on the free distribution of syringes or on exchange of a used syringe for a new one made in the prevention centres or syringe exchanges (SE); this strategy is generally associated with counseling or educational interventions. The SE were first applied in countries (Netherlands, Sweden, Scotland, Great Britain, France), where there existed restrictions on the selling of syringes in drugstores; in the aforementioned countries, (the example of Edinburgh is valid for all), the evident increase of the rates of infection from HIV-1 among drug addicts in the previous years, had been linked to frequent and promiscuous practices of common use of syringes, also due to the scarce availability of the material. On the other hand, the greatest doubts on the assumptions of this strategy derive from the verification that in countries like Italy, where a nonrestrictive policy on the selling of syringes had already existed since the mid-70's as a preventive measure against hepatitis B, spread of the infection among the IVUs was rapid and massive, superior to that of many European countries.

However, studies reveal that the SE programmes do not increase the use of drugs or behaviour at risk, although more specific reserves are maintained towards those less restrictive interventions based only upon free distribution which do not associate counseling or educational programmes. Following the SE programmes a reduction of syringe exchange was observed; in Amsterdam 82% of subjects following the SE programme report the nonrepeated use of only one syringe, compared to 28% of those off the programme; similar results were obtained in Scotland, where seropositivity diminished from 15.1% to 5.6% as a result of SE programmes. Whereas in London comparative studies between SE drug addicts and non-SE who were interviewed again at a year's distance reported a reduction of syringe exchange in both groups (respectively, from 35 to 16% and from 42 to 22%), without a relevant difference. One of the major objections of those opposing SE is that the subject willing to join this kind of programme is already motivated towards a change of behaviour at risk, and after all, one of the limits of the SE interventions is low participation in the programme. On an average, 61% go back for a second visit, and only 17% reach the tenth; the percentage of syringe exchange differs from 23 to 100% with an average of 62%. Consumers of cocaine and other stimulating drugs are more refractory to the SE programmes. The consideration that emerges from the analysis of the various modes of intervention for the reduction of behaviour at risk and incidence of infection from HIV-1 among drug addicts is that the most appropriate strategy must necessarily be multifaceted, combining different aspects of interventions, and that the information, education, and support programmes aimed at certain target groups seem to be an indispensable prerogative of any preventive programme.

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Prisons and Drug Use

This brief essay concerning the problem of drugs in prison is the fruit of long years of personal experience working in penitentiary environment and summarizes the current situation and the projects which the Italian prison system plans to implement in fulfillment of Law No. 162 of 1990.

This essay does not indulge in theorizing, but seeks, on the one hand, to convey truthfully the difficult condition of drug addicts who are imprisoned and, on the other, to define the problematic function of the prison as an institution.

Introducing a subject like that of drugs in prison summons up an image of complete desperation, of an "ultimate swamp," "a land forgotten by gods and hated by men,"[1] the intersection of two desperate situations, the loss of freedom and drug dependence, causes such a definitive loss of human identity and irreversible devastation

But to abandon this aspect of mere desperation, which surely does not furnish constructive solutions, we need to explain the problem of drug dependence itself, as a problem for man before becoming a problem for man as a prisoner, so as to suggest a possible solution or simply some ways to face the difficulty.

Indeed, as Professor Amato (D.A.P. Director General) affirms, the drug/prison problem has to be solved by both prevention and training together[2], "for fighting against drugs means fighting in favor of, and not against, drug addicts."

It is certain that, as Professor Amato states, if the drug addict commits a crime in order to obtain



drugs and under their effects, he must be punished we take into account his condition, without therefore exempting him from responsibility.

In this sense we need a minimum denominator for certainties.

Firstly, there are no reliable scientific results about the real motivations inducing some people to take drugs. In addition, simply speaking of drug addicts as if they were a different kind of people, even if homogeneous as a group, is improper, for their condition requires specific assessment, case by case, in view of the different variables, which may be classified under two main headings personal and social.

We must, moreover, point out that the method to analyze this kind of problem must start from some basic certainties if it is to avoid dispersion in a field in which the multiplicity of causal factors makes us lose sight of our objective.

In all honesty, it is best to stress that reliable scientific data on the real reasons leading some people to take drugs do not exist.

If we again tie the problem in with the two major headings mentioned, we may say that personal problems, perhaps present before and during drug addiction, are psychological/psychiatric; another aspect is the relation established to the substance, which is also influenced by the kind of drug taken, by the time elapsed, and by resulting changes in individual modes of cultural, economic, social, and relational communication.

On the other hand, we encounter the social/familial context, the original environment. The relation-

ship with the drug addict should be personalized as far as possible, with the need for professionals to listen and acquire good knowledge of the person and his condition.

Therefore, situations reinforcing his condition must be avoided; he has to be regarded as a person by those dealing with him, appreciated for himself, shown trust in his own capacities, and stimulated and strengthened in his motivational system.

All of this might help him overcome his drug dependence as well.

A first reading of the data is already indicative of the scope of the problem:

— the number of drug addicts is rapidly increasing (200,000);

— there is a 20% increase in the number of deaths from overdose;

— drug-addicted prisoners are only a part of the total number of addicts and of the prison population as a whole.

The most frequent crime committed by drug-addicted prisoners is against property (40% of cases), followed by drug sales (31%) and other less frequent crimes, among which the leading category is against persons (13%).

55% of drug-addicted prisoners have been previously sentenced; another 18% show previous judicial experiences. Those devoid of penal precedents represent 17%, and other categories total at most 10%. 72.4% of drug-addicted prisoners have penal precedents.

As I stated, the phenomenon of drug addiction is quite complex, but such complexity is greatly worsened if that status is associated with imprisonment.

When combined, the two conditions as addicts and prisoners trigger a negative short circuit which is very hard to accept and overcome: one inevitably reinforces the other.

This same aspect of adaptation/disadaptation in drug-addicted prisoners is additionally fueled, and the tendency towards deviation increases, virtually marking a closed, impenetrable border. Their conviction grows that there is no way out, with the resulting further frustration.

Moreover, it happens that the largest percentage of imprisoned drug addicts involves previously institutionalized minors, in a situation linked to social pathology, and it seems proper to affirm that the drug addiction phenomenon has often been superimposed upon social situations which have already been compromised, with a high risk of deviation.

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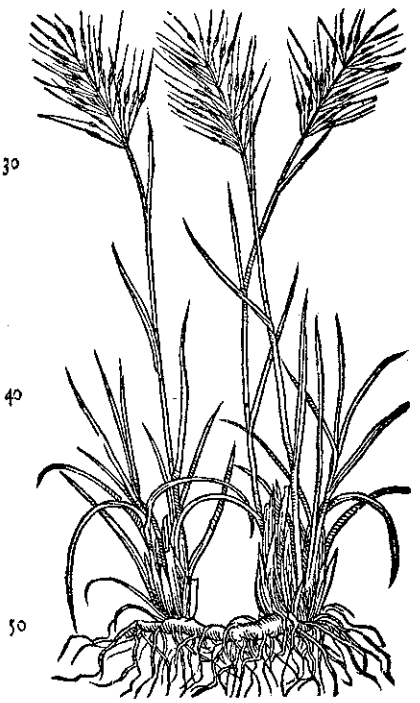


The complexity of the problem, then, arises from the fact that the drug addict is a person devoid of self-control and autonomy who has to face an authoritarian world, that of the jail, of the totalitarian institution, which manages every aspect of the imprisoned person, hence his " paradoxical " position, for the institution, as master, would like subjects devoid of self-control and autonomy.

Furthermore, the main problem of these addicts is precisely the acceptance of authority, the virtually complete incapacity for making choices, with the aggravating circumstance that the capacity for self-control develops only by exercising it, and if the will of the controlled subject is replaced by that of the controller, the former's vice is encouraged.

Some psychological characteristics in the behavior and personality of addicted prisoners derive therefrom.

1. The feeling of being " alone " on various levels: emotional, ethical, relational, and so on. Their conflict consists, on the one hand, of a desire to communicate at all costs and attract attention and, on the other, of their doubt as to whether or not they are capable of doing so.

2. Their difficulty in containing emotivity, to which there is added, as mentioned above, the mutual reinforcement of addiction and imprisonment.

In this regard, let us note that an inability to control one's emotions notably contributes to creating situations of hostility and nonacceptance by the prison environment and thus severely tests the internal organization of penitentiaries.

The fragility of the self makes it extremely difficult for these subjects to control behavior and emotional reactions.

ITALIANS		
males	5,490	18.31%
females	539	1.52%
TOTAL	7,029	19.83%
FOREIGNERS		
males	1,263	3.56%
females	151	3.56%
TOTAL	1,424	4.02%
TOTAL PER CRIME	8,453	23.85%

3. In imprisoned addicts there is also a tendency towards minimal conformity to reality; in addition to manipulating others, manipulate themselves, tending to construct their own "dream" world, quite different from the one in which they really live. They in fact take refuge in a condition where drugs act as an intermediary in the relation between reality and fantasy, allowing them to seek security in the latter whenever the reality of prison life itself becomes too burdensome for them.

4. The imprisoned addict develops a persecution mania moving in two directions: fear of others and fear concerning his own body.

At this point a closed-circuit mechanism arises: the more they turn back upon themselves, the more they drift away from others and feel alone. And the negative process then reappears.

5. Insecurity is, in any event, the most frequent behavioral characteristic: an underlying insecurity wavering between fragility and power, precisely because fantasy envelops it increasingly and separates it from reality. In the terminal situation, the dream state becomes highly desirable, and reality thus loses more and more ground, and drugs increasingly become a magic trip.

In short, being drug addicts is seen to be closely linked to three basic, interrelated aspects:

— the personality of the drug consumer;

— the type of substance consumed;

— the environment one comes from.

The drug addict's behavior, like that of everyone, is the product of learning and not only the result of a personal predisposition or genetic characteristics (Montalcini).

On the other hand, it is taken for granted that the need to take drugs may arise not only from pre-existing situations not directly related to the social context, but also on a strictly psychological basis.

The prisoner's state surely does not represent the ideal one for addiction treatment, but it may represent (in a situation of inevitability) a significant moment to carry out the process of motivation towards being healed and, therefore, towards seeking care.

This process presupposes three simultaneous moments.

A. The Motivation of Prison Workers Devoted to This Task

There should be insistence precisely upon aspects of reinforce-

Table 1 - Addicted prisoners at penal institutions in relation to prison population (as of Dec. 31, 1990)

Years	1986	1987	1988	(*)1989	1990
Prisoners	31,403	30,555	31,077	30,635	24,670
Addicts	6,102	5,221	7,500	7,722	7,299
%	19.43	17.09	24.13	25.21	29.58

(*) As of Dec. 15, 1990.

Table 2 - Addicted prisoners under methadone treatment (as of Dec. 31, 1990)

Years	1986	1987	1988	(*)1989	1990
Addicts	6,102	5,221	7,500	8,790	7,299
Methadone treated	252	1,742	750	1,916	184
%	4.13	33.37	10.00	21.80	2.52

(*) As of June 15, 1990.

ment and positive results in order to carry out an effective treatment plan.

Therefore, workers must provide interpersonal and emotional continuity: fragmentation in relationships, a succession of different persons, not only fails to tranquilize, but confuses and rejects one who is by definition insecure, deficient from an affective standpoint. The patient looks his therapist in the eye to see whether the latter believes in him and in the therapy he is proposing and whether he has a chance of success

But we must not intervene either with the presumption of applying treatment programs and ideologies bureaucratically; otherwise they would risk further reinforcing the addict's condition. These programs must thus be differentiated and personalized as far as possible

In short, workers should establish relationships which, while taking into account their state, privileges, and personhood, grant confidence to their capacities and cause a motivational system to arise and develop in a framework of stimulation of personal potentialities which, in the final analysis, will make them stop being drug addicts.

B. The Addict's Decision to Cooperate

We cannot dispense with his decision. It seems obvious, but it is a difficult condition to obtain and requires a commitment.

The drug addict is basically narcissistic: the attention he seeks from workers is centered more on his own state as an addict than on his

Table 3 - Average nationwide % of addicts in prison population **29,6**

Region	% of addicts in regional prison population	% of national prison population	% of addicted prisoners nationwide
Abruzzo	27.30	2.28	2.10
Basilicata	12.50	0.84	0.35
Calabria	22.70	2.53	1.94
Campania	21.80	11.95	8.83
Emilia Romagna	33.70	6.08	6.94
Friuli	21.50	1.11	0.80
Lazio	32.60	11.37	12.53
Liguria	48.00	2.04	3.31
Lombardia	34.30	14.16	16.45
Marche	15.50	1.48	0.78
Molise	15.50	1.48	0.47
Piemonte	40.40	9.52	13.01
Puglie	35.60	5.53	6.67
Sardegna	29.70	3.77	3.79
Sicilia	14.70	10.10	5.04
Toscana	23.70	9.70	7.79
Trentino	51.90	0.83	1.46
Umbria	18.40	1.97	1.23
Valle d'Aosta	61.80	0.56	1.17
Veneto	43.70	3.53	5.23

personhood. And in the name of his own state, more than what he himself is, he requires, claims, and demands attention, care, privileges, and so on. I feel it is a mistake to satisfy him in all respects. What is most useful is to relativize their individuality and their requests, tailoring interventions to pedagogical criteria.

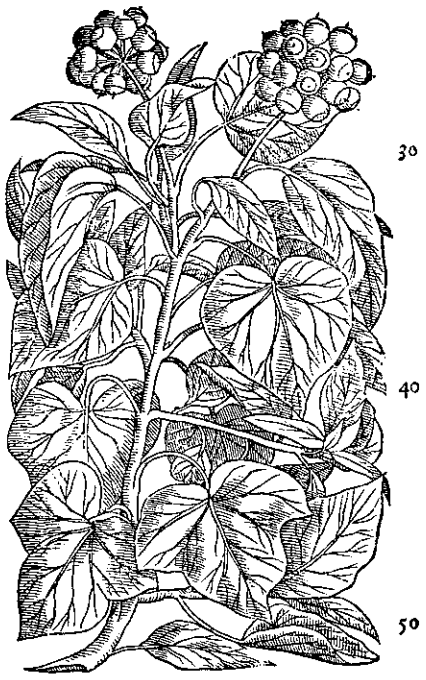
The addict needs to be stimulated not to continue in certain modules, connatural for him, of flight from his own fears and insecurity.

We must thus start from action supportive of the addict in prison, especially in the initial phase, where a notable twofold, psychophysical malaise is always present, linked to a state of forced withdrawal and the shock deriving from imprisonment. And it should be noted that this state of malaise is only relatively visible externally, whereas it may acquire a nearly unbearable significance on a subjective level.

A liaison must then be established, in terms of interpersonal psychology, so the addict can overcome the difficulties of adaptation, on the one hand, and to some degree renew relations with his external world, on the other, particularly with his family.

But what we have just stated must be set in motion, encouraged, and stimulated; the addict's willingness to cooperate (except in rare instances) remains a goal to be reached and is almost never a departure point. Let us not deceive ourselves. It is a decision which to some extent must be intelligently "induced" and prepared for through the project of a treatment plan which, above all, demands a great effort by him.

HEDERA ARBOREA.



Statistical Observations

The incidence of addicts in comparison to the rest of the prison population is observed twice yearly through printed cards compiled by each institution at fixed intervals and then sent to our Department for study.

Analysis of recent data has shown that, though there is a decrease in the prison population, the percentage of addicts with respect to prior data has increased by 12.5% from 17.09% in 1987 to 29.58% in 1990. The problem is especially serious in the large cities, where the percentage of imprisoned addicts reaches and surpasses 60-70% of the total prison population.

It is easy to foresee for 1991 a new increase in imprisoned addicts as a result of enforcement of D.P.R. 309/90, with penalties for the personal use of narcotics in amounts superior to the average daily dose.

The incidence of the phenomenon of addiction within prisons is shown in the first column of Table 3, with data on regional variations, displaying significant differences in the proportion of addicts as opposed to other prisoners and the re-

Table 4 - HIV in prisons as of Dec. 31, 1990.

Years	1987	1988	(*) 1989	1990
Prisoners	30,555	31,077	30,635	24,670
Seropositive	3,578	3,396	2,792	2,046
%	11.70	10 92	9.11	8.29
ARC	82	178	212	293
%	0.26	0.57	0 69	1.18
Full-Blown AIDS	26	36	37	39
Years	1987	1988	(*)1989	1990
%	0.08	0.11	0 12	0.15

*) As of Dec 15, 1990.

sultant influx into healthcare and social rehabilitation services.

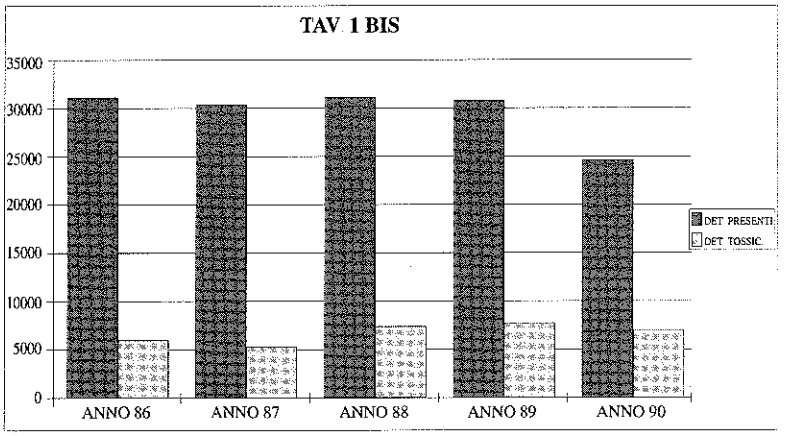
As for current intervention aimed at imprisoned addicts, it must be pointed out that on entering prison the addict is subjected to an initial examination by the prison doctor for the purpose of determining the degree of addiction in terms of Health Ministry Decree No. 186 of 1990.

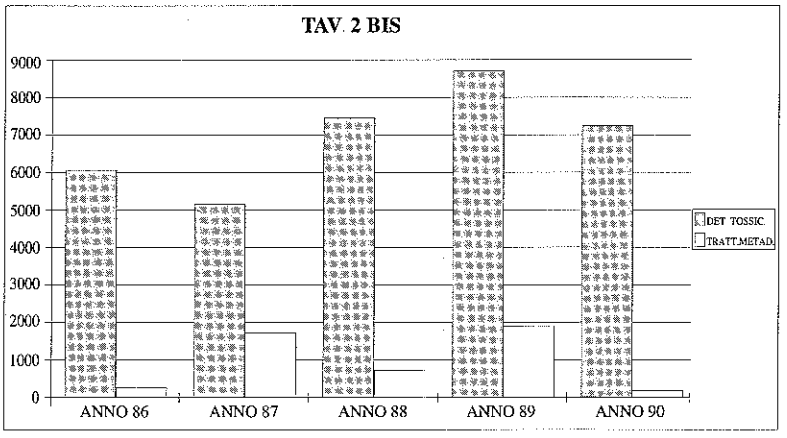
For all addicts channels of cooperation are activated with the Community Health Units (Unità Sanitarie Locali), which are asked to provide assistance and care to addicts in fulfillment of Art. 98, § 3 of D.P.R. 309/90.

In regard to dehabituating therapy for opiates applied to addicts on entering prison, a sharp drop in recourse to methadone treatment should be pointed out; on Dec. 31, 1990 only 180 prisoners were treated with this product, and the adoption of alternate therapies with nonnarcotic substances seemed preferable (Tables 2 and 2 b).

We also ought to point to the existence of a series of therapeutic communities to help charged addicts subjected to house arrest in keeping with the D.M. of Jan. 25, 1990. There were 64, 552 daily visits to such facilities in 1989 and 82,129 in 1990.

The Lombard Region in the north holds first place, followed by Campania, Latium, Sicily, and Tuscany. The least affected regions are Molise, Trentino, and Valle d'Aosta. Obviously, the major urban areas are most heavily attacked, where there is also a larger presence of foreign prisoners. As we stated, the trend towards an increase dates back to before Law 162 went into effect and relates not so much to simple drug consumption as to responsibility for crimes committed to obtain drugs or while under their influence. The jails should house a greater number of drug traffickers, who, however, are rarely imprisoned or leave jail too soon, replaced by people who are not traffickers and dramatically pay in their skin for the minor offenses to get drugs.





Review of Data on Addicted Prisoners Based on the Previous Norm, Law 685/75

Before speaking of prison, it is fitting to ask about the size and characteristics of the criminal phenomenon induced by drug addiction.

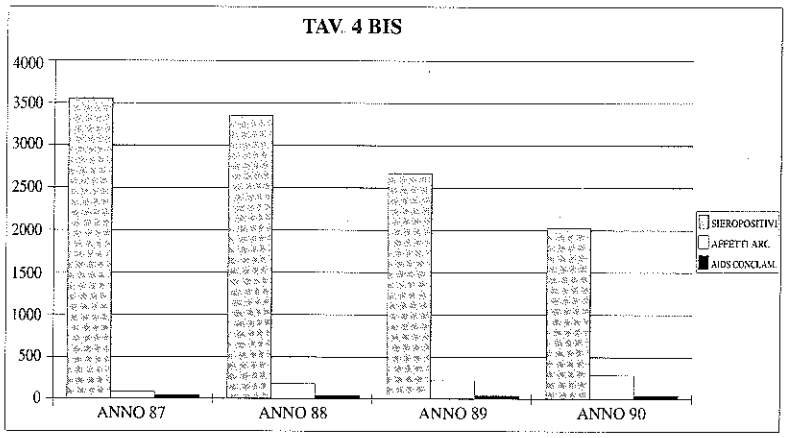
This consideration is vital to measuring the scope and magnitude of prevention required to defend society and to delineate realistically the weight of penal response and penitentiary treatment so as to reach the constitutional objective, guaranteed by the sentence, of reintegrating the accused into society.

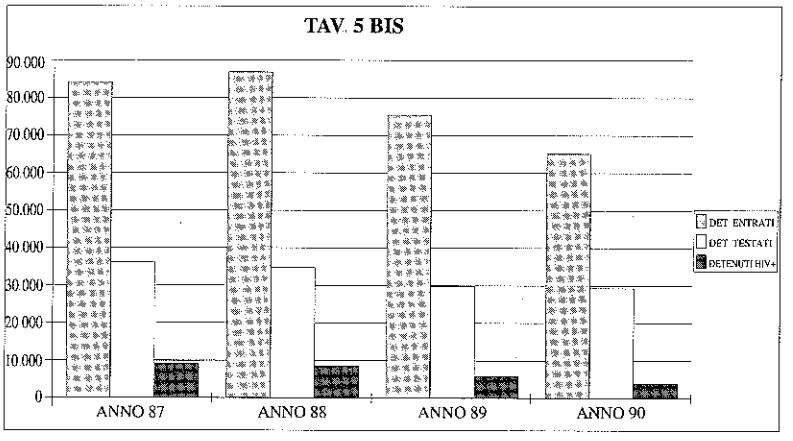
Before verifying the state of the jail acting as a "storehouse," we should observe the input, that is, the results of repressive police activity, considering previously that criminal statistics are not an indicator of criminality, but rather a sign, above all, of the effectiveness of the agencies of social control.

According to aforementioned Law 685/75, there is a conspicuously larger number of crimes against property, especially committed by juveniles (ages 18-25), followed by crimes against persons, homicides, and kidnappings. The subdivision into socioprofessional categories of those denounced for crimes under Law 685/75 brings out the fact that the lower strata and marginalized classes (unemployed, unspecified employment) are the hardest hit, though virtually all socioeconomic classes are involved in the phenomenon.

The dimensions of the addict population in jails has always been a phenomenon periodically investigated by the Penitentiary Administration and poses not a few problems concerning the mode and reliability of repeated observations.

In relation to the former norm, there surely exists, too, a "dark number": prisoners whose clinical status has been medically verified are recognized to be addicts. The difference between average daily presence and the high number of arrests indicates a certain "turn-





over " in the addict population superior to that of other prisoners and, unfortunately, constantly increasing (50% between 1979 and 1984).

When the addicted prisoner enters a penal institution, he has first to be recognized as such and given necessary assistance, for he is at the nadir of psychophysical degradation. Interventions must be both medical and sociopsychological.

Under the former norms of Law 685/75, the addicted prisoner was to be protected in his " personality " from other prisoners and assigned to " appropriately prepared sections of the jail. " But there was an attempt to avoid further " marginalization, " not to limit pharmacological intervention, and to reduce drug addiction to an illness, for the addict asks for drugs, not words, and does not spontaneously accept treatment programs.

Under such provisions, then, once withdrawal was over, the addicted prisoner was kept in a security and control facility, with a maintenance treatment. Afterwards, once he was integrated into the " internal " society, without an artificially separate microcosm, with a definite need for a work setting and the avoidance of idleness and the effects of the prison syndrome, there was a maximum effort to avoid his resorting to drugs even after release.

Deprivation is replaced by motivation, for, paradoxically, in jail the addict has the chance to solve a problem not solved in free society. A great deal can be done if the prison functions as a filter, not a storehouse. The main aspects of the " typical " drug addict in jail are as follows: in almost all cases, he has taken heroin and been imprisoned for crimes of possession and minor narcotic dealing, but particularly for other crimes (theft, robbery, etc.).

If we consider the variant of sex, subjects do not differ in either characteristics or the kind of crime. Female addicts resorted more to crimes of possession, accumulation, dealing, and so forth mentioned by the law than to generalized crimes like robbery.

The common denominator for men and women was, first of all, heroin, followed by so-called light drugs. The penal institution has thus had to attend to these subjects for some time; their propensity to " withdrawal " has become a compelling personality demand.

Under former norms, the approach to this problematic was mainly pharmacological and medical, whereas recourse to therapies and alternate forms of treatment was extremely reduced.

Through observation of experience, it is important to take into account a series of episodes which may seem unsophisticated, but which are surely revelatory of the phenomenon's spread and the difficulty in containing it.

As we stated, the addicted prisoner is doubly punished, for he does not regard it as just, firstly, that he should be in jail, since in his opinion committing a crime to obtain drugs is virtually a " proper " action and, therefore, nonpunishable. As a result, once in jail, the need to take drugs and to get them in even more covert fashion explodes more violently; he tries to flaunt not only outer society as an institution, but the primary enemy institution at that moment, which is the prison. With obstinate persistence he thus turns to every mechanism to obtain the substance, by way of more fallacious stratagems aimed not only at getting drugs, but at " profaning " the institution. The most varied means are invented in attempting to " construct " drugs by methods calculated according to economic possibilities, the softest (proper to the poorest) range from buying large amounts of bicarbonate within prison to try to create mixtures resembling drugs to acquiring cigarette paper without purchasing tobacco to make cigarettes with light drugs or obtaining forms of minor poisoning in order to get high for a while, like absorbing the content of small camping-gas canisters kept in stock according to regulations or conserving several kinds

ADDICTED PRISONERS AS OF DEC. 31, 1990

National Summary

Region	Prisoners			Addicted prisoners			Prisoners under methadone treatment		
	Males	Females	Total Region	Males	Females	Total Region	Males	Females	Total Region
Total Abruzzo Region	540	24	564	148	6	154	0	0	0
Total Basilicata Region	201	7	208	26	0	26	1	0	1
Total Calabria Region	609	16	625	140	2	142	4	0	4
Total Campania Region	2,816	133	2,949	607	38	645	0	0	0
Total Emilia Romagna Region	1,393	109	1,502	454	53	507	10	6	16
Total Friuli V. Giulia Region	260	14	274	54	5	59	0	0	0
Total Lazio Region	2,574	231	2,805	870	45	915	0	0	0
Total Liguria Region	472	32	504	228	14	242	9	0	9
Total Lombardia Region	3,254	241	3,495	1,111	90	1,201	2	2	4
Total Marche Region	356	11	367	51	6	57	0	0	0
Total Molise Region	135	2	137	33	2	35	3	2	5
Total Piemonte Region	2,241	109	2,350	890	60	950	31	4	35
Total Puglia Region	1,309	56	1,365	476	11	487	43	0	43
Total Sardegna Region	915	16	931	266	11	277	29	2	31
Total Sicilia Region	2,446	47	2,493	352	16	368	1	0	1
Total Toscana Region	2,287	108	2,395	504	65	569	13	5	18
Total Trentino Region	189	17	206	94	13	107	1	1	2
Total Umbria Region	444	44	488	89	1	90	3	0	3
Total Veneto Region	790	83	873	340	42	382	10	1	11
Total Valle D'Aosta Region	125	14	139	72	14	86	1	0	1
TOTAL	23,356	1,314	24,670	6,805	494	7,299	161	23	184

Table 5 - HIV screening for newly arrived prisoners

Years	1987	1988	(*) 1989	1990
New arrivals	84,792	86,824	76,144	65,831
Tests	36,038	35,083	29,978	29,552
%	42.50	40.40	39.30	44.80
HIV positive	8,938	8,528	6,190	4,344
%	24.80	24.30	20.60	14.60

(*) As of Dec 15, 1990

Table 6a - National % of positivity **14,6**

Positivity % according to region							
Abruzzo	19.20	Friuli V.G.	14.70	Molise	7.20	Toscana	8.60
Basilicata	18.00	Lazio	25.70	Piemonte	9.20	Trentino A.A.	13.50
Calabria	2.80	Liguria	18.30	Puglia	10.40	Umbria	5.00
Campania	6.90	Lombardia	26.80	Sardegna	11.90	Valle d'Aosta	14.50
Emilia Romagna	23.30	Marche	12.50	Sicilia	7.90	Veneto	13.80

Table 6b - % of new arrivals screened **44,8**

Abruzzo	66.60	Friuli V.G.	39.50	Molise	84.60	Toscana	55.10
Basilicata	21.10	Lazio	16.50	Piemonte	80.30	Trentino A.A.	41.60
Calabria	58.00	Liguria	60.60	Puglia	42.70	Umbria	37.90
Campania	18.80	Lombardia	42.50	Sardegna	64.00	Valle D'Aosta	25.80
Emilia Romagna	65.20	Marche	81.80	Sicilia	45.60	Veneto	64.80

Table 7 - Prisoners with full-blown AIDS

Years	1989	1990
Full-blown AIDS cases	187	214
Separated from prisons for medical care reasons	138	84
% separated	73.70	39.20
Deceased at public health facilities	14	7
% deceased	7.40	3.20

of medicine distributed by prescription and swallowing them with large amounts of wine or beer (both acquired legally as permitted by Italian prison norms).

Those with wider possibilities acquire real drugs either by corrupting personnel, so it seems, or by other methods of which we are not fully aware, and they obtain it not only for themselves, but also for sale inside the prison or to gain positions of supremacy over other

Table 8 - HIV patients in prison under AZT treatment

Institutions	Year 1989			Year 1990		
	Males	Females	Total	Males	Females	Total
Abruzzo	0	0	0	3	0	3
Basilicata	0	0	0	0	0	0
Calabria	0	0	0	0	0	0
Campania	3	0	3	24	0	24
Emilia Romagna	29	3	33	37	4	41
Friuli Venezia Giulia	0	0	0	1	0	1
Lazio	3	0	3	24	1	25
Liguria	6	1	7	9	2	11
Lombardia	14	6	20	23	2	25
Marche	1	0	1	2	0	2
Molise	1	0	1	3	0	3
Piemonte	15	2	17	22	4	26
Puglia	0	0	0	5	1	6
Sardegna	23	2	25	16	0	16
Sicilia	1	0	1	18	1	19
Toscana	15	2	17	29	3	32
Trentino Alto Adige	1	0	1	2	0	2
Umbria	2	0	2	6	1	7
Valle D'Aosta	0	1	1	1	0	1
Veneto	2	0	2	4	1	5
TOTAL	116	17	134	229	20	249

prisoners. Other curious aspects in the introduction of drugs into jails are the concealment of small amounts within letters, pasted onto postcards or even under stamps, or received with a kiss during visits by family members. Another serious vehicle for introduction involves packages sent by the family, which may reach four per month and cannot exceed five kg. This innovation goes back to 1984 (under Justice Minister Martinazzoli). Before that date packages could arrive once a week, with possibilities for extraordinary packages without weight limits, providing better chances to introduce drugs.

Since 1988 Professor Amato, D.A.P. Director General, has been fighting to abolish packages, but the task is arduous for a country like Italy, where emotional fervor tied to the immediate family takes on tones and colorings sometimes arriving at paroxysm. Let it suffice to recall the pastasciutta prepared by the mamma to be consumed in jail!

But it does and will happen frequently that it is precisely the mother who puts into the package or hands over during a visit, but of compassion or misplaced affection drugs for an imprisoned son.

In short, it must be stressed that the possibility of having permanent therapeutic support, since in Italian jails health care is continuous and medical attention can be requested without limitation, especially in large prisons, where the number of addicts is greater, turns into the chance to receive repeatedly phar-

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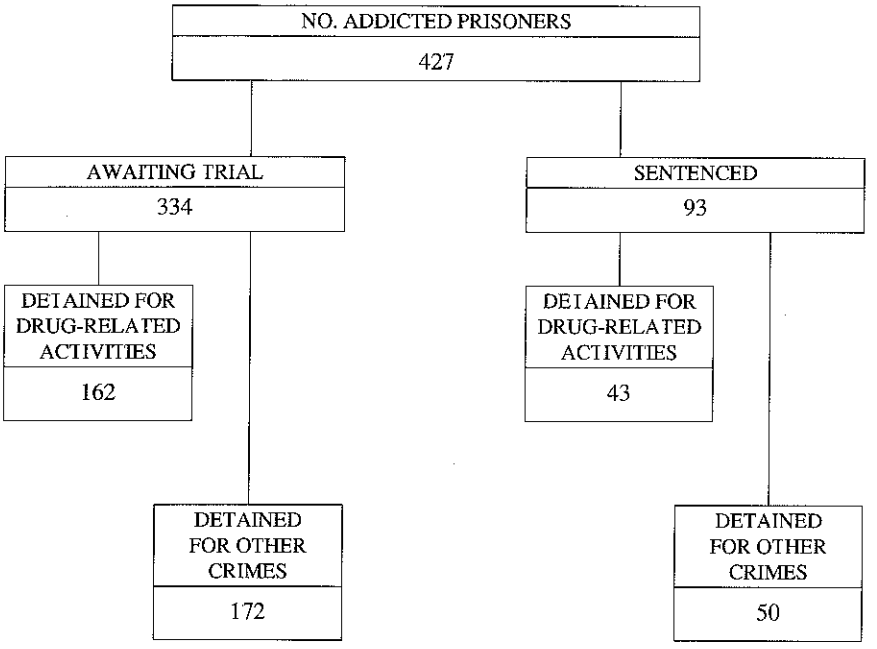

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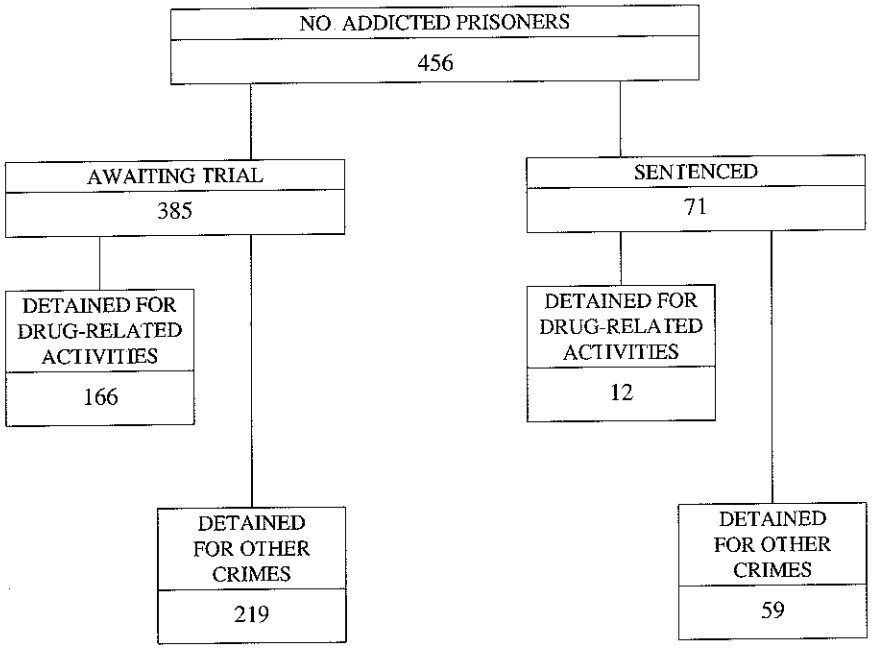

maceuticals which are then exchanged or directed towards illicit ends.

The dangerous ritual of using the same syringe among several individuals or a dirty needle casually found during the recreation period has induced the drug-legalization leagues to propose free distribution of syringes among prisoners, proposal equally supported by some illustrious professors at a meeting on the AIDS problem, precisely to check the spread of this malady

AIDS and Drug Addiction

Ever more alarming is the spread of the HIV syndrome in the prison population. As of Dec. 15, 1989 there were 2,132 seropositive prisoners, 660 with LAS, and 212 with ARC, whereas during 1989 there were 125 AIDS cases among convicts

As we know, the vast majority of prisoners carrying the virus belong to the category of addicts, reproducing the exterior environment. Therefore, in view of the constantly growing trend among seropositive prisoners and those manifesting the consequent syndromes, the number of the sick is destined to increase notably.

The Penitentiary Administration regards it as an indispensable duty to try to put into practice every health measure and suitable treatment to contain and oppose the disease's spread in the prison environment.

But it is completely clear that the management of these pathologies in such special surroundings as are jails poses very delicate problems which cannot be underestimated and requires a high degree of sensitivity and cooperation by outside society, particularly health facilities.

Deep concern about the propagation of HIV infection among prisoners leads us to adopt new measures to block its spread and treat those affected swiftly and effectively.

This is all the more true since in prison people are forced to live together, whether or not they so desire, with others whom they cannot choose either. This shared existence generally transpires in conditions of

great crowding which grows as the number of convicts increases. It is, indeed, not unusual for a single cell to contain dozens of prisoners. This crowding inevitably involves, in addition to constant physical proximity, common use of many objects, beginning with bathrooms

Moreover, precise implementation of prevailing penitentiary regulations, increasingly inspired by the principles of openness in the prison and the treatment and social rehabilitation of convicts, rings with it a large number of relations and considerable physical closeness—also the result of a duty, not a free choice—to prisoners of personnel, particularly those engaged in surveillance, treatment, medical care, expert supervision, and administration.

We must consider as well some forms of behavior widespread among prisoners, like tattooing and sharing of razor lades and toothbrushes—unfortunately, objectively inevitable in spite of all attention and control by personnel—certain homosexual practices—perhaps accompanied by violence—and episodes of clandestine use of narcotic substances.

Certainly, for preventive purposes, an information effort, the broadest and most continuous possible, is vital regarding the characteristics of infections and the channels and modes of contagion, an effort also serving to eliminate or at least notably reduce the alarm and panic unavoidably connected with pathological forms of known seriousness which are virtually incurable and concerning which medical knowledge itself is still at an evolutionary stage.

The Penitentiary Administration must attend to this information effort with the utmost care, using written texts and talks by specialists and experts aimed at both prisoners and personnel.

The medical treatment of convicts with HIV poses specific and complex problems for the Penitentiary Administration.

Above all, we must state that penal institutions are not and cannot be—for insuperable structural reasons as well—on a position to deal with the pathological forms requiring medical isolation. And in fact—in view of their own institutional

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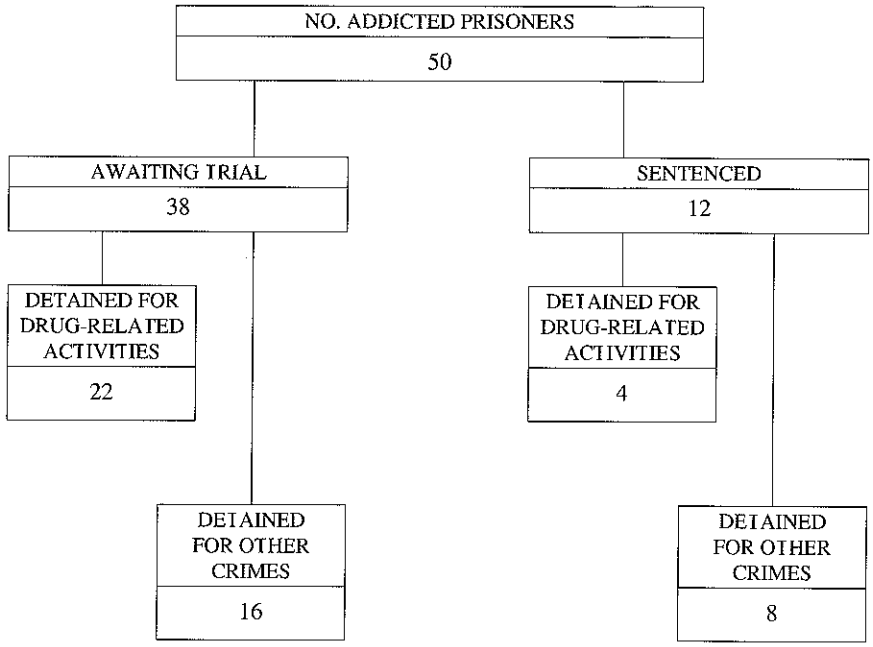

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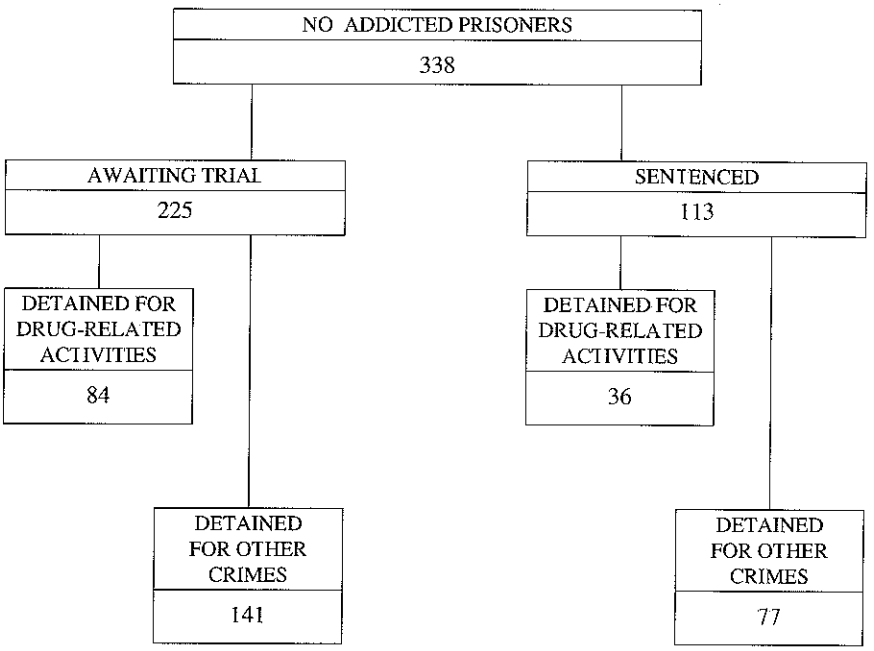

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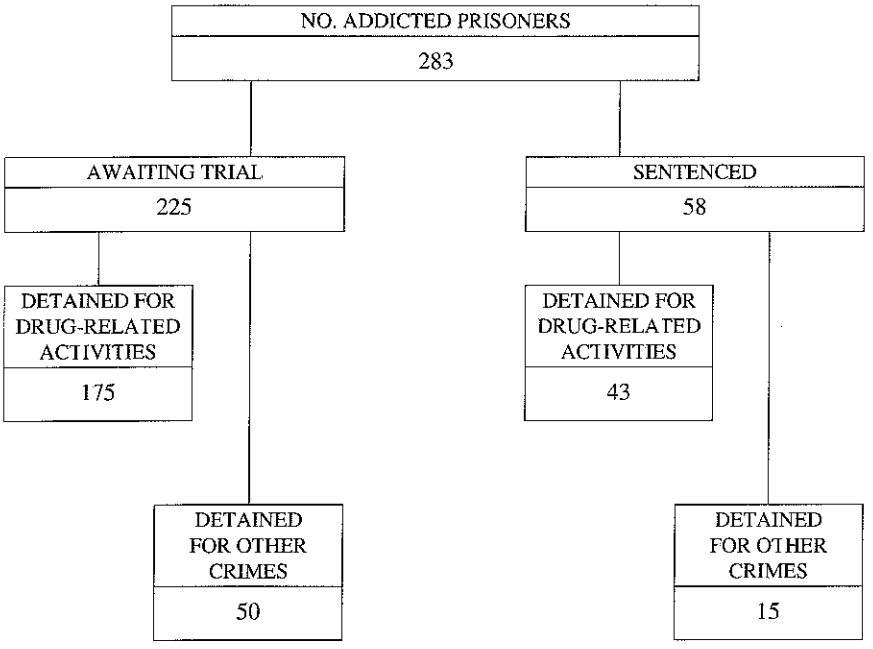

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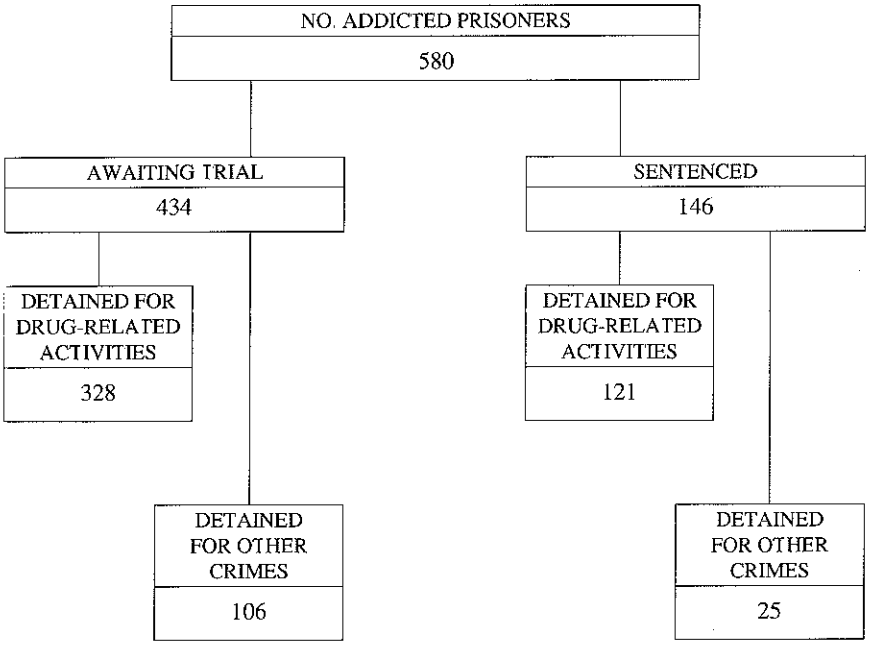

aims—they are not and cannot be leprosariums, as Professor Amato has repeatedly declared forcefully.

It must also be specified that the penitentiary medical service is generally not capable—because of insuperable limits on its resources and means—of providing more than basic care, on a modest level. It is not able to assume responsibility for pathologies which—like many of those linked to HIV—expose people to opportunistic infections.

It thus remains clear that the Penitentiary Administration cannot at deal with HIV infection when it reaches the full-blown form, as was declared in March 1989 by the National Commission for the Fight against AIDS, which expressed its judgment on the complete incompatibility of the state of AIDS sufferers with prison conditions, even while observing the Minimum Rules dictated by the Council of Europe (specifically No. 3).

In addition, for all the problems which a subject, even if only seropositive, entails in an environment of great crowding like that of a prison, Art. 36, § 2 of Law 162 provides for the possibility of carrying out an AIDS treatment program through use of external facilities; it seems desirable, above all, that opportune agreements incorporating the content of that norm be made with the administrators of specialized hospitals so that the latter can definitively and uniformly commit themselves to fruitful cooperation in diagnosis and treatment of HIV-positive prisoners.

As for prevention and information, as well as care, in regard to HIV infections, we need to maintain and further develop the relations of close collaboration established some time ago involving the Justice Ministry (D.A.P.), the Health Ministry, and the National Commission for the Fight against AIDS.

In this context, the guidelines for the behavior of sociomedical workers drafted by the National Commission for the control of HIV infection have been distributed to D.A.P. personnel; penitentiary administrators have received audiovisual aids provided by the Institute for Advanced Health Studies in order to facilitate the transmission of information to personnel and pris-

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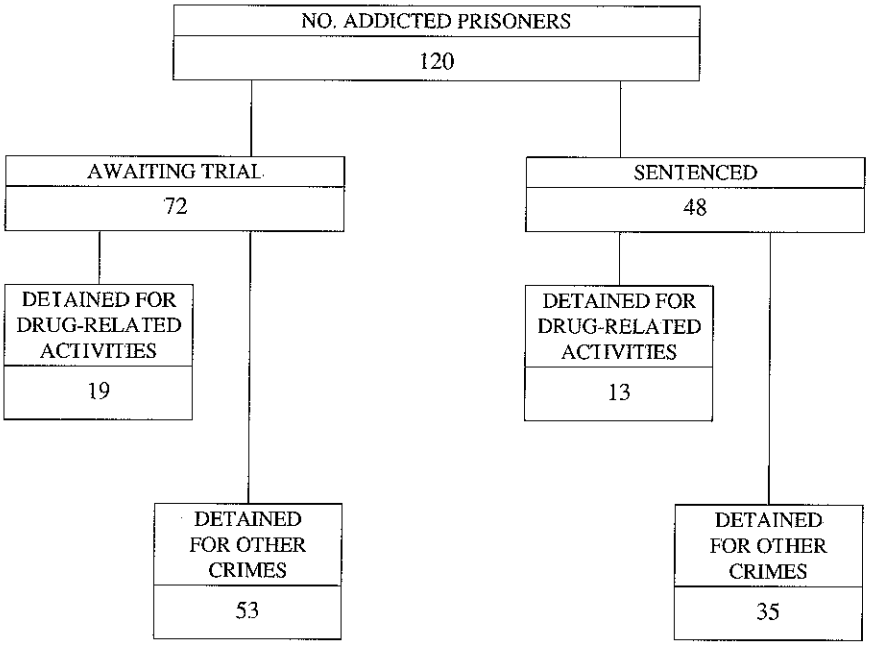

oners; specific training courses on HIV aimed at penitentiary staff have been planned and in part already held; pamphlets specifically devoted to the prison situation which explain the modes of transmission of the virus have been published; we have encouraged encounters between prison doctors and inmates to convey vital information on the virus.

To this end it is also useful to stimulate cooperation by universities, research institutes, and hospital infectious disease departments for prison personnel and inmates and meetings with professors, researchers, and chief physicians in the course of which essential aspects of the diseases can be described and the information and knowledge needed to avoid infection can be repeated and updated.

Getting across these messages, if offered authoritatively and then repeated by prison personnel, constitutes the most suitable instrument to bring about a change in at risk behavior among inmates. It also represents an element of psychological support and serves to eliminate or reduce the anguish and excessive alarm connected with a lack of precise knowledge.

Aside from this, we deem it supremely important to present to inmates correct, adequate information, considering as well the high proportion of addicts, who, on the outside, are not at all sensitive to informative messages. We have also provided for a plan to restructure prison infirmaries in order to create at many institutions at least one sterile room equipped for initial emergency care of inmates with AIDS or serious intercurrent infections while preparations are made to transfer them to an external facility, in compliance with Art. 17 of the Penitentiary Ordinance.

Professor Amato has been fighting for some time to introduce mandatory screening in prison. He bases this obligation on the fact that we cannot forget that the prison situation is different from free society. Each freely chooses his friends and thus risks as well; but in prison society that is not the case, because inmates, though not through a voluntary option of the Administration, but out of the need created by the large number of convicts, are placed, against or apart from their will, in conditions of crowding which only someone who has visited the cells of certain penitentiaries can grasp. All of this fully respects science, but does not underestimate an implicit legal problem: someone might demand indemnification from the State for having become HIV positive in prison.

Law 162/90 and Prison

The new law seems to have decided upon, or at least set in motion on an immediate basis, what the old law did not manage to do, evidently because of a lack of understanding of the phenomenon, i.e., the involvement of prison facilities at last in real treatment plans.

The old law also provided for different treatment of addicted inmates; the new law obviously gives this treatment content and forms which are surely more precise and reflect the current approach internationally.

In 1987 an international conference on drug abuse and narcotics traffic was held in Vienna; all the UN Member States took part. That conference gave rise to the 1988 Convention, which was not limited merely to a general framework for international legal norms, but also sought to offer countries an action plan, known as "CMO," consisting of outlines for practical initiatives which the UN provided to Members as a stimulus for research and intervention in the field of substance abuse.

One of these objectives (Objective 34, in particular) refers specifically to treatment of addicted inmates, that is, where the penal sanction punishes people who, for one reason or another, use substances, drugs, and as a result must serve a sentence.

This indication seems in the end to have been properly understood and can notably affect the prison situation, which is quite critical.

There were, of course, numerous other elements indicating that we were faced with a far from homogeneous situation, indeed, utterly heterogeneous, with addicts in prison as a result of criminal episodes due to their addiction, i.e., the ones we

described as criminal addicts, with a typological characterization which may be more or less superimposed upon that of the addicts we know. Furthermore, we are aware that a high percentage of drug addicts perpetrate illegal acts to obtain the means for drug abuse and that jail represents a sometimes obligatory stage in the life model the addict is faced with.

Another type is the criminal addict, who has begun to use drugs within a form of existence, in an illegal lifestyle which may at times impose itself completely to the point of constituting a real "illness," or, in other instances, remain merely a habit.

The situation is even more heterogeneous if we consider that we still tend to speak of the drug addict as if he were ill, even as we draft punitive legislation. The history of substance abuse in the world has taught us that societies behave in an alternating way and go from moments of total punishment where substance abuse is regarded in itself as a punishable act, a criminal deed, to moments in which drug addiction is depenalized and regarded mainly as a pathological event, a disease to be treated.

There are times when the two situations are associated. Our law, the one in force at this moment, has accepted both hypotheses, whereas the previous one did not wish to choose between them, limiting itself to suppressing the punishment without going into the definition of personal, nontherapeutic use of narcotic substances.

The new norm on drugs, Law 162, may be considered in a historical and cultural context consigning them to the penal institution: this leads to an objective fact, that is, the close connection existing today, for different reasons and through differing mechanisms, between prisons and drug addiction.

The extent to which the phenomenon is deeply linked to deviant behavior in its varied manifestations and, consequently, to delinquency is, in effect, clear. But the connection proves even more evident when we recall that the impact of the prison facility frequently marks the first intervention of an institutional nature aimed at providing initial responses to the problem on an individual level.

SFERRA CAVALLO



Furthermore, we must consider that, fifteen years after the penitentiary reform, a new legal instrument has intervened to give a new thrust to the prison world. New tasks are thus taking shape, perhaps even more complex and demanding.

In fact, if we refer only to penitentiary aspects, Law 162—which from the drafting stage until today has been the object of fiery debate where opposing positions emerge that are not reconcilable in terms of basic ideological underpinning—its into a legal perspective assigning the prison a dynamic function in offering proposals, recognizing a quality superior to the mission of mere containment.

And the transcendence of the functions assigned demands carefully designed training so that professionals will not have to deal with this change with ineffective, inadequate instruments.

It is thus a question of transmitting a new culture no longer conceiving two meanings to be incompatible: the need for punishment (in any case, still present and indispensable for the concept of sentencing) and the demand for therapy/rehabilitation.

And, to tell the truth, for some time now we have acquired a knowledge of the value of rehabilitation as part of an up-to-date concept of punishment, since in regard to the drug addict the path heading towards reintegration is so closely linked to therapeutic demands.

A new culture facilitating perception of an entity—the prison—which, while not abandoning its role in one of the ordinary functions of a State based on law, opens out to the dimension of a provider and organizer of services.

We must stress that in this framework the penal institution, in broadening its tasks beyond those carried out traditionally, calls others, such as local bodies, especially the Community Health Units, and social agencies in the private sector, to take part in them. A joint responsibility which is political or technical-professional—on regard to the levels we wish to consider—further reinforcing the dimension of cooperation follows from this. The prison's abandoning its walled enclosure to seek room for interac-

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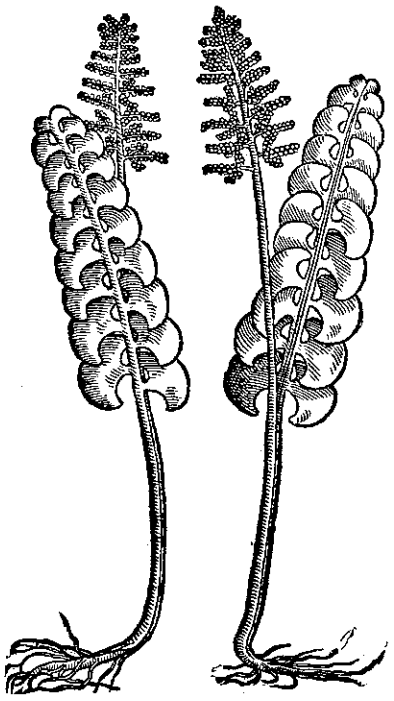

tion with the outside world belongs to recent history Not a few experiences have been obtained in this regard, though the times require an intensification of that policy by which to respond to the demands that can be met only by coordinated action administered by plurality of subjects.

In this context, I am particularly interested in concentrating on a specific aspect concerning professionals with consequent repercussions on their training.

Everyone is familiar with the prolonged, tough effort of penitentiary staff in being joined to the same facility they work at in the process of removing the jail as a place of separation and legal suffering, process effected by civil conscience.

In any case, it should be noted that this process has for several years now reversed its course and that one of the aspects of this turnabout ought to be seen in the prison's progressive sensitivity to cultural needs.

Law 162 is posed as a profoundly innovative law which, in adopting the achievements and requirements successively emerging as a result of prison reform, definitively entrusts to penitentiary staff new, more vigorous social usefulness.

Programs to Treat Addicted Inmates under Law 162/90

The mission of defining guidelines for possible curative and sociorehabilitative treatment of addicted inmates was fulfilled by a special commission of experts from the different professions comprising the Penitentiary Administration. Above all, the commission clearly perceived that in specifying a possible action program it had to consider not only those convicted, dealt with in Art. 30 of Law 162/90, but all addicted prison inmates, since it is expressly provided that interventions for needed care and rehabilitation can be requested by "all inmates with drug addiction problems." Aside from this, through Order No. 9/4414/5 the Chamber of Deputies committed the Government to admit addicts —whatever their legal category may be—into separate facilities, which in fact coincide with the "suitable institutions" mentioned in Art. 30 The scope of the commitment, even under a material aspect, proves quite broad: this separate, special "suitable" penitentiary circuit ought to be regarded as differentiated in a positive sense, that is, in such a way as to cause the demands of social solidarity to prevail over those of security and to guarantee these persons care, assistance, and sociomedical treatment aimed at their recovery and social reintegration.

But this differentiated circuit is not unanimously assented to in the prison world, for it is thought that marginalization in regard to other inmates may have counterproductive effects if we bear in mind the hypothesis that the phenomenon of drug addiction encounters precisely in this fringe-group status one of its leading sociocultural values. Three forms of marginalization would thus be added together, with serious consequences: the addict's original form, that of imprisonment, and that of separation in the prison environment.

The most frequent contraindications for the creation of protected, isolated areas in the prison context might include:

a) mutual reinforcement by addicts of their state of drug dependence;

b) the permanence of communication models typical of the group they belong to, with an increase in forms of marginalization/self-marginalization;

c) an increase in attitudes of apathy and poor cooperation;

d) greater difficulty in controlling the possible circulation of narcotics inside prisons;

e) a notable increase in alternate forms of intoxication with decreased control by other inmates;

f) an increase in episodes of aggressiveness and self-injury.

For this isolating direction, much more effective would be the hypothesis of systems integrating sections of observation and treatment open to other inmates as well; the latter might also be selected to function typically as a group for stimulus and control.

Secondly, it has been observed that the combination of the two ob-

jectives, penitentiary treatment and treatment of drug addiction (or alcohol dependence) presents aspects not easy to harmonize and resolve, in terms of both mutual compatibility of the two intervention systems and the balance which in any case must be established between the way of treating addicted inmates and the treatment afforded inmates in general, in such fashion as to avoid forming, without adequate technical justification, circuits of privileged treatment for some categories as opposed to others.

Thirdly, it has proved evident that care and rehabilitation of addicted (or alcoholic) inmates postulates—as provided by norms—such broader and more decisive involvement by local public and private services than is generally required in the habitual operative procedures. In fact, the services at issue are in this case called not only to participate—more or less significantly—in the institution's reeducational activities, but even to take on direct, specific responsibility for the treatment plan made available to each addicted inmate, with all that this implies methodologically in terms of operative interdependence among services.

Starting from these considerations, the commission posed as its first objective determining a verification procedure enabling us to recognize with the certainty required the drug addict on his entry into the prison facility. In regard to Health Ministry Decree No. 186 of July 12, 1990 on the diagnostic and medical-legal procedures to be implemented in this connection, a series of parameters was indicated (on personal health status, symptoms manifested, syndromes present, etc.) which would allow the examining physician on entry to make a careful, sufficiently precise and effective examination on entry. In this respect, a medical card has also been formulated, with differences for men and women, which should facilitate carrying out observations and at the same time serve as a more adequate instrument for documentation including case-history data on drug addiction, in addition to the specific signs and symptoms manifested during the objective examination.

Of course, the final judgment on a person's drug addiction and consequent measures to be adopted will reach the point—even at this initial stage—of the most global possible evaluation of the case, with participation therein by all the professionals intervening: that is, those who have conducted an interview on arrival, an important part of which is, as we know, the service for newcomers from the outside.

The central point in initial interviews is the psychological exchange, conducted by the Newcomers Service of the Psychology Department, which is a kind of psychological guard instituted some years ago at Italian penitentiaries to protect inmates' lives and physical safety. Planned to work under various schedules geared to the arrival of inmates at the prison, it tends, above all, to determine prisoners' aggressiveness towards themselves and others to avoid, first of all, the possibility of self-injuring actions, especially suicide as a reaction to arrest. This service is particularly helpful for drug addicts, inasmuch as prison contributes to aggravating an already fragile situation: the equilibrium of a young person or an older adult sometimes snaps with extreme facility, and killing oneself may be somewhat more than a rash act, though a direct nexus cannot always be established between the cause (imprisonment, regarded as unjust) and the effect (suicide).

On the basis of these evaluations, institutions are to identify among those arriving each day from the outside the ones presenting a state of drug addiction which requires attention. But this indication would prove too general to be appropriately used on an operative level. In reality, the addict population entering our institutions presents quite a varied range of personal/relational attitudes extending from a rejection of every form of cooperation to a—more or less adequate—recognition of their state and the resultant need for care and even the clearly expressed wish to continue treatment already begun outside prison and now suddenly lacking. In substance, we can observe among those arriving differences in personal history, existential attitude, and motivation for treatment that are so broad that they make it necessary to carry out further detailed identification and a consequent formula-



tion of models for opportunely diversified institutional responses.

It was felt that such demands could be met by developing treatment on two levels and trying to deliver it in separate facilities where the addict observed in the arrival interview would be immediately set apart. A first level—which could be described as basic—was aimed at those with addiction problems who are not looked after by any service or who, even afterwards—during imprisonment—to do not seem to offer motives for more demanding treatment or whose release was to take place so soon as to render any long-term attention unfeasible. A second level—which might be termed "advanced"—as aimed at those presenting motives, after receiving first-level attention, for more intensive treatment or already—in entering prison—undergoing valid sociorehabilitative treatment and whose sentences were sufficiently long to comply with institutionally developed programs.

First-level treatment, in substance, poses a series of objectives to be attained with all addicted inmates, independently of their greater or lesser manifest desire for recovery. This evidently involves "minimum objectives" which can nevertheless constitute in themselves relevant gains and, above all, may represent—for those showing better response to the program—first, important step in the recovery process which must be further developed at second-level facilities or after their release.

These objectives include

1) control of situations requiring attention specified as urgent by the team that has identified the person (controlling withdrawal reactions, beginning the disintoxication process, maintaining the pharmacological therapy which may have been initiated, containing depressive crises as they arise, etc.);

2) systematic and "aggressive" information (in the psychopromotional sense) on the curative and sociorehabilitative opportunities available inside and outside prison and on the behavior and precautions to be adopted to prevent AIDS and other forms of disease related to drug abuse, etc.;

3) assuming responsibility for the person under the psychological and socioeducational aspects (with all this entails in terms of support and personal consolidation, educational orientation, recovering affective-familial relationships, preparation for reintegration into society, etc.);

4) the activation of services specializing in addiction treatment to provide the corresponding pharmacological and/or therapeutic attention;

5) the addict's motivation for making a commitment to a more advanced treatment program at facilities inside or outside the prison system able to provide this second level. This action to motivate people, availing itself of specialized contributions by experts from the drug addiction services, can probably obtain appreciable results in only some cases, but must, however, be directed at all inmates, as a specific commitment by the State to the active fight against the spread of drugs; a fight which cannot be conceived as a manifestation of moments of repression alone, but which must comprehend every possible attempt at assistance, even when it seems to offer small chance of success in practical terms.

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Second-level treatment, which is for inmates who no longer manifest withdrawal crises and an urgent need for disintoxication, are seen to be sufficiently well informed about the problem in which they are involved, and appear motivated for treatment, presents some substantial differences in both goals to be reached and operative methodologies to be applied.

The objectives involved include:

1) orienting the inmate about the therapeutic and sociorehabilitative programs at the prison while making sure that his selection of one of the feasible options is supported by adequate motivations and a real willingness to make the commitments which the course of treatment requires;

2) the gradual and deeper change in personal attitudes connected with drug addiction through specialized therapies (individual and group counseling, personalized therapeutic programs, etc.);

3) the inmate's broad and systematic involvement in training, work, and socializing activities in

such a way as to accompany and support effectively the process guided on a specifically therapeutic level;

4) the help offered the inmate for the gradual formation of a "life project" comprehending the possible arrangement of work problems, material organization, affective-familial relationships, etc.; project providing for concrete, enduring solutions representing real support for the inmate at the difficult time of release from prison.

Each of these two major treatment plans has been structured into "stages" whose common components are a "reception phase," a treatment phase," and a "phase of release and social reintegration"; structure serving to bring out the dynamic value of these programs, the characteristic of evolutionary process which attention to the addict must possess, reflecting a progression of logical steps and maturation over time which should be adequately understood and respected.

In each of these programs, phases, and steps the fulfillment of certain basic conditions proves indispensable.

a) First of all, prison staff—who are asked to intervene directly in the problems peculiar to prison conditions and to coordinate action by external staff—must show exceptional initiative, imagination, and active mobilization of existing resources, both inside and outside the prison.

The methodology of cooperation must, when necessary, involve the whole penitentiary staff, including surveillance personnel, which should not carry out a control function alone, but take an active and leading part in programs to combat AIDS and to treat and rehabilitate addicted and alcoholic inmates, for it is now a well-established conception that the staff to whom primary responsibility for security and the protection of legality is entrusted are also actors in the functions of treatment and social recovery of convicts.

b) A second condition is the concrete response—and the consistency of the response—by local services and professionals, called by norms to intervene competently alongside prison staff, to emerging demands.

This refers not only to the staff of Community Health Units and the facilities specializing in the treatment of addiction, but also to public and private organisms working in the field (therapeutic communities, organized volunteer groups, etc.), which constitute a valuable manifestation of resources available in the community to which we should resort systematically through special agreements as well.

Of course, agreements will prove broader and more decisive insofar as they arise from cultural and professional exchanges rich in occasions for reflection and discussion—an ideas and programs which are also shared—by the staff involved. To this end, it has been deemed appropriate to provide for not only sessions of analysis and evaluation open to all staff members within institutions (in activities of observation, treatment of catamnesis, etc.)—organized by the Penitentiary Administration and/or local bodies, universities, and hospitals—enabling staff to arrive at a real shared perspective on the phenomenon they are dealing with in unitary fashion.

Indications somewhat analogous to those formulated for drug addicts have been supplied for the treatment of alcoholics. For the latter, however, whose problematic has quite a different cultural nature and different repercussions on behavior, it seems appropriate for specific sociorehabilitative interventions and the very gradualness of the therapeutic approach to be ensured by the institutions to which they are normally sent rather than separate facilities.

A second chapter in the interventions provided for by the new norm for addicts concerns, as is well known, the action which the Penitentiary Administration is called to carry out through Social Service Centers, in compliance with Art. 72 b (h) of Law 685/75, included in Art. 16 of Law 162/90.

In practice, once the prefect's interventions have failed, the judge is given the option of deciding to entrust the addict to the Prison Social

Service, as an autonomous means of " penal sanction "

Although in this case the assignment is applied at the cognizance rather than executive stage, it appears substantially comparable to that which has been practiced until now, presupposing that the Prison Social Service will perform functions of assistance and control of the addict, as already occurs with sentenced criminals entrusted to it.

This provision—aside from the singularity of the application—to someone " not sentenced " of a measure described by the Constitutional Court as " not an alternative to punishment, " but a punishment in itself, an alternative to imprisonment, characterized by restrictions on personal freedom and subjection to Social Service controls which must be justified and legitimated by formal sentencing, proposes to the Prison Social Service a new responsibility for a group of persons whose real importance—on the current state of affairs—cannot be properly indicated. Everything will, of course, depend firstly on the judicial police and secondly on the judges.

As for the prison facility, the Law indicates to the Penitentiary Administration the terms of its compliance:

—provide for the acquisition of prisons and their use for addicted inmates, including those not definitively sentenced (Art. 82, § 3);

—arrange for institutions suited to the development of therapeutic and sociorehabilitative programs for those sentenced for crimes committed in connection with their own drug addiction (Art. 30).

In regard to improving the facilities being built and bringing them into greater conformity with the new principles of prison treatment, the Penitentiary Administration has already initiated a vast program of revision and modification of new institutions which do not fully reflect the new demands, i.e., by reducing passive defenses; amplifying or creating spaces for shared activities, both indoors and outdoors, particularly those to be used for sports and recreation, like patios for walking, halls for films and plays, gymnasiums, playing fields,



and so forth; reducing rooms for multiple visits and increasing those for individual encounters; making space available for greenery, including plans for wooded areas, etc.

These directions will also be applied to institutions which must serve for treatment of addicts, that is,

— in the case of prisons, criteria for their selection will include a capacity for at least thirty people (with some rare exceptions approved because of the prison's advantageous location), a good physical condition of the building, and the availability of space for treatment activities;

— appropriate parts of prison houses to be created alongside the jails in cities where the phenomenon of the spread of drugs is most extensive will be devoted to the addicts already sentenced. A similar criterion will guide selection of sections of buildings for female imprisonment:

— at certain, geographically well-distributed houses there will be special sections for addicts;

— adequate sections for men and women addicts will also be instituted at all male and female prisons and in all the women's sections of men's prisons.

The principles informing the norms for selecting these sections and institutions are also expressed in the agenda of Parliament for May 11, 1990 and include the suitability of locations, clear-cut separation from others to avoid overcrowding and harmful influences among addicted and nonaddicted inmates.

The restructuring to be done must tend not only to effect the aforementioned separation at all institutions concerned, but also to create adequate environments, especially at those which are to receive the inmates who wish to submit to advanced (or second-level) treatment.

Therefore, the way of life commonly existing today at institutions must be changed, with attempts to have inmates spend the day outside their cells insofar as possible, with

work initiatives, by activating auditoriums, laboratories, etc.; with cultural stimulation, by increasing libraries, theaters, etc.; with socializing activities, by making full use of playing fields, where they exist, or creating them, along with game and recreation rooms, etc.; restoring new vigor to family affections, by creating attractive visiting rooms and green spaces to be intensively used

These institutions must attenuate the spirit of closed custody and repression so as to acquire a broad measure of the spirit of reeducation.

Everything can contribute thereto, that we have just mentioned and all that can be done to offer, even in the external dimension of prison facilities, the pleasant appearance which may be conferred with modest initiatives, such as, for example, chromatic choices for environments or careful arrangements of plants and gardens, etc.

Since, as we know, in the same category of addicted inmates there are dangerous individuals, there are plans, at least on a district basis for different institutions or sections for them with a greater level of security.

In institutions with tighter security concern for security itself (which should, of course, hold priority) must not paralyze all the activity of treatment and recovery

We know that the two exigencies, security and recovery, can be fully and positively reconciled.

Constructive experiences in this regard are not lacking which encourage us to continue in that direction.

At lower-security institutions more favorable and open conditions will be created, with abandonment of many superfluous systems of precaution which often do not contribute to establishing the climate of confidence and openness needed to foster the development of positive interpersonal relationships.

We stated that within an institution we must ensure complete separation of addicted inmates from others, both inside imprisonment areas and outside them, as with the kitchen, halls, corridors, recreation patios, visiting rooms, green spaces, and so on.

It is true that this division will not be possible at all institutions,

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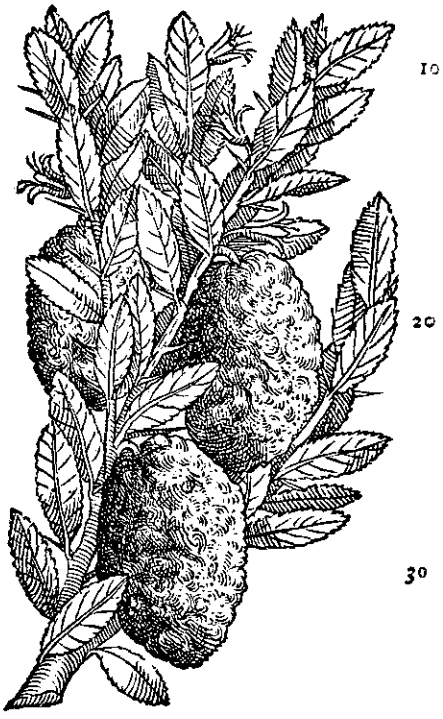

particularly in older buildings, where spatial limitations do not provide much opportunity for intervention; but in these cases careful organization of life on the inside (at least in the initial phase, while we await better solutions) can at least enable the different categories of inmates to enjoy common areas on an alternating basis and thus avoid overcrowding.

Finally, we should point to the experience of " minimum security " institutions for inmates who appear better motivated towards a rehabilitation and social recovery program. This is a second, positively differentiated circuit comprehending specially instituted facilities: already functioning examples at Sollicciano and Rimini antedate Law 162.

The identification of inmates to be assigned to this second circuit takes place on the basis of evaluation of dangerousness, the seriousness of the crimes committed or the sentence received, and capacity for quick recovery and reintegration. Scientific observation of the inmate's personality is carried out by the special team working at the institution, which takes into account the prisoner's behavior, personal history, special characteristics, and greater or lesser manifest receptivity to recovery and rehabilitation.

In conclusion, the new anti-drug norms, a civilized, advanced law, has introduced a second cultural revolution, conferring the task of giving addicted inmates sociopenitentiary treatment, a process of recovery and social reintegration rather than punishment. It has transformed institutional facilities and ends by placing in the foreground respect for the social malaise present in drug addiction.

In Italy we have the example of many therapeutic communities which have done and are doing a great deal in the fight against marginalization, along with the volunteer movements, which have demonstrated commitment, and it is hoped that they will further expand their work at prison facilities.

Drug addiction in fact arises from a profound value crisis: the crisis of the family and the school; it is a failure of the whole society. We must construct a culture able to overcome drug dependence by re-

discovering fundamental values and regaining the capacity to be scandalized at the brutal offenses to a sense of morality, honesty, and dignity we are observing each day. The list of drug-related deaths is impressive, and yet it creates more news than emotion: when we lose the sense that the death of another concerns us, that life is not a trivial event, that man's life has no price other than that with which it is offered, then civilization falls and barbarism begins.

Unfortunately, the force of habit, an incapacity for rebellion, and resignation are snuffing out hope within us. The drug problem, as Professor Amato says, like any other problem of this civilization destroyed by consumption, depends on the rediscovery of time-tested, authentic values of life and humanity.

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[1] G MANGANELLI, *La palude definitiva*, p 12.
[2] *Il Messaggero*, 7 novembre 1989

Bibliography

— Convegno " Carcere e Droga ", — Anno 1985 — Pontremoli.
— Atti della Commissione istituita nel luglio 1990 per l'elaborazione dei programmi di trattamento per i detenuti tossicodipendenti previsti dalla legge 30 6 1990 n. 162.
— Atti del Convegno di Baveno — Anno 1990 — " L. 162/90: una nuova legge per una Amministrazione "


CODICE
FARMACEUTICO ROMANO
TEORICO PRATICO
PAPA PIO IX.
ROMA

CARLOS PEREZ I TESTOR

Drugs in Military Service

1. Military Service as a Life Event

Life events are considered circumstances which modify the personality structure, producing changes in the pre-existing equilibrium. Any change can stir up anxieties; obsessions concerning what can be lost in the new situation (depressive anxieties), and anxieties with the fear of all that is new, and, therefore, unknown (persecution anxieties). Any change puts in motion processes of mourning.

However, not all personality structures respond in the same way to these processes of mourning, nor are they able to endure the anxieties of change to the same degree. Prior to inciting factors, there must be an interior factor which makes the external event really efficient and pathogenic. This factor is determined by the internal frustration or the psychopathogenic conflict

We believe that life events can incite disorders, if the patient's personality structure is sufficiently labile (with all its bio-psycho-social variables: constitutional aspects, personal history, psychobiological elements, social class ...).

At this point we can formulate: Starting military service can be considered a process of mourning.

Mourning and loss were already studied by Freud in "Mourning and Melancholy"[1], but it is perhaps the work of Melanie Klein which best describes the psychoanalytical hypothesis of mourning processes. In her complete works and in those of Kleinian psychoanalysts,[2-5] appears the concept of the mourning process and the series of psychological processes which begin with "loss" and end with the "reintroduction" of the lost "interior object." Adequately assimilated mourning presupposes a sufficiently assimilated depressive state. M. Klein connected the assimilation of mourning to the capability for assimilation of the first and following depressive states.[6] The depressive state is obtained by the assimilation of more destructive anxieties: the paranoid and confusional anxieties.

Our clinical experience has shown that the beginning of national service, with its preparations, the trip, and arriving at the camp, may stir up a series of phantasies and anxieties which lead to an increase of "important psychological problems." The fact of starting service can be considered a risk factor,[7-10] a vital event that, according to the personal vulnerabilty of the young man, can lead to some kind of disorder.[11-15]

2. The Start of the Military Service as an Incitement to Addict Behaviour

A very interesting study carried out by one team of the Research Department of the "Fundació Vidal i Barraquer," summarizes the process of addiction in the young drug addict. In this work, R. Bassols describes two basic categories of addicts — of course, with many intermediate nuances. At one extreme, you find those adolescents who, though relatively "normal," are not able to cope with negative circumstances which cause tremendous sufferings to them. Therefore, they defensively take refuge in drugs, behaviour that may be strengthened by the typical proselytism of addicts. In these cases, it is a matter of episodic disorders of the personality, which are typical for this age and which can be cured quite easily.

At the other extreme, adolescents with a clear, narcissistic mental profile. In those adolescents, inclination towards addiction is just one symptom more. But if these tendencies are put into practice, they will dominate the personal panorama. The narcissistic profile remains precarious thanks to the drug: that highly idealized and, at the same time, persecutory object. But persecution is denied by the injection of a new dose which makes this denying possible as well as helping to escape the feeling of one's own mental chaos. It is a process which must be repeated continuously, a desperate attempt to escape from interior suffering.

For the addict, interpersonal relations are dominated by strong greed and a lack of regard for others. It is a greed which cannot be satisfied due to the break-down of the interior assimilation processes. Nothing can be kept and, therefore, the experience is monotonously repeated.[16]

Like many other authors (Ferenczi, Rosenfeld, Meltzer, etc), we believe, too, that the addict tries out maniacal defenses in order to strengthen the feelings of omnipotence, but his "ego," impoverished and without means, has to make use of drugs. Addiction can be considered an artifical mania, a surrogate for the "ego's" poor capabilities, an escape in view of the impossibility of facing the mourning due to loss.[17-21]

Military Service is a vital event and as such causes a process of mourning which is difficult to assi-

milate if persecution anxieties are dominating. The impact of vital events can be considered a typical stress situation which may produce persecution anxieties. If these anxieties are excessive or disturb emotional equilibrium, the young man might take refuge defensively in addiction, a behaviour that might be strenghtened by the addiction proselytism of the group, which favours with its maxims this kind of behaviour.

This is even more evident in the case of great previous psychiatric vulnerability: e.g., the young recruits with previous pathologies which can be strengthened or unleashed by contact with military life.

3. Alcohol Consumption in Military Service

Different studies carried out on recruits in Denmark by Lauritzen, Besjakow, and Bardrum showed that in the Navy 64.7% consume alcohol and 49.7% in the Army. 50.7% of the civilian population declared they consumed alcoholic beverages.[22] Burt obtains a figure of 73% of beer drinkers in the US Army[23]; whereas Allen and Mazzuchi find between 83 and 91%.[24]

In our study on recruits of the Spanish Army (n = 1616), 89,6% of the recruits said that they consumed an alcoholic drink sometimes,[25] a figure which is similar to that obtained by EDIS, regarding the civilan population (89.5%),[26] and inferior to that of Alonso Vareo, who calculated in 1983 that 93.3% of the recruits consumed alcoholic beverages.[27] In our group, 45.9% were light drinkers, 33.7% moderate, and 10% heavy drinkers.[25]

We could prove in our study that those recruits who did not drink alcoholic beverages before national service continued to be abstinent. Thus we deduced that military life does not produce new consumers. But we could observe an increase of alcohol consumption among those who had consumed daily alcoholical beverages before they joined the army. Hence we deduced that military life can eventually augment consumption in habitual consumers.[25]

The tendency to reduce the variety of alcoholical beverages consumed during service is also very significant. The consumption of beer increases at the expense of wine, whereas liquors and whiskey are consumed in the same quantities. These changes in the recruit's consumption behaviour within 30 days after his arrival show us how the recruits consolidate their preference for beer (a beverage that is served free of charge with the meals) — according to the trend among young people in general, who prefer beer to any other alcoholic beverage.[23,27,28]

CHAMELEON BIANCO



4. Tobacco consumption in Military Service

64.1% of the recruits we studied smoked daily, a figure that is almost identical to EDIS (65.06%),[26] and to Alonso Varea (64%).[27]

In studies on recruits of other countries, the figures are lower. Lauritzen, Besjakow, and Bardrum, e.g., 57.5% in the Navy, 39.5% in the army, compared to 39.5% of the general population

In our epidemiological study we proved that recruits who did not smoke before they started national service continued to be non-smokers. We could deduce that one does not start smoking during military service, as happened some decades ago, but already in school (already described in different studies[29,30]).

5. Consumption of illegal drugs in the military

The results of our survey revealed that 35.7% of young recruits had occasionally tried some drug. 29.9% of recruits were habitual consumers.

The main drug they had tried was cannabis (28.7% of recruits), followed by cocaine (4.1%), and heroin (1.7%). The 17 recruits (1.04%) who showed symptoms of drug abstinence when they came to the Centre for Recruit Training and who were taken to the Military Hospital have been excluded from our study.[25]

These figures are similar to those of other studies, like EDIS[26] or Varo (31.32), on general population. They are higher than those of Benson (19% occasional consumers among Swedish recruits)[33]; of Lam-

phier (Canada, 23%)[34] of Smart (Ontario, 23%)[35] and Revuelta, who found a drug consumption of 23.3% during " the last month. "

The results of our study confirmed that in our group those recruits who had consumed illegal drugs before starting the military service continued with this habit, whereas nonconsumers did not start to take drugs. The beginning of military life as a vital impact is not enough to lead to consumption. There must be a vast offer of illegal drugs and a vital event with more impact,[16 37] like the variable " of fulfilling " national service far away from home ".[25] This was the case in studies carried out on recruits who did their military service out of the Peninsula, in Northern Africa,[38] where the consumption of illegal drugs is very popular.

These studies underline the fact that the consumption of available alcoholic beverages, like beer, increases among recruits, whereas the consumption of illegal drugs, like the derivatives of opium and cannabis, decreases or remains the same.

Many social, cultural, and economical factors explain why alcohol is the most common drug. But it should not be forgotten that the consumption of toxics like alcohol can be unintentionally stimulated among recruits who do their national service.

Conclusions

1. The beginning of military service produces a series of fantasies and anxieties which lead to an increase of " important psychological problems. " The fact of starting service can be considered a risk factor, a vital event that, according to the vulnerability of the individual, may lead to some kind of disorder.

2. The prevention of this risk factor would include all measures to avoid a sudden and traumatic cut of the bonds that protect against possible psychopathological decompensations and reduce the impact of contact with military life as a vital, stress-encouraging event: Service could be done in the region of one's residence, with a chance to spend the night or weekends at home; it could be shorter; an overconcentration of young men in barracks could be avoided; etc.

3. There is a probable connection between the increase of legal drug consumption in military circles and the supply of such drugs. The young recruit is more inclined to consume the legal drugs he already knows and which he consumed before beginning the Service; the military surrounding could unintentionally stimulate the consumption by uncontrolled supply.

4. A reduction of the impact of contact with military life as a vital, stress-producing event and an elimination of the supply of alcoholic beverages in barracks and other military buildings could be preventive measures in order to hinder an increase of alcohol consumption among recruits.

5. The creation of specific programmes for the detection and treatment of the young men who present an unstable emotional equilibrium or a previous, significant psychiatric vulnerability (e.g., those with previous pathologies which could be worsened or set off by contact with military life, or addicts of legal or illegal drugs) could be a very efficient measure for prevention.

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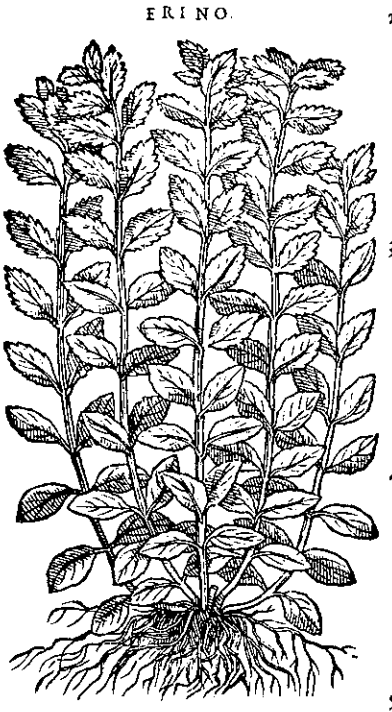
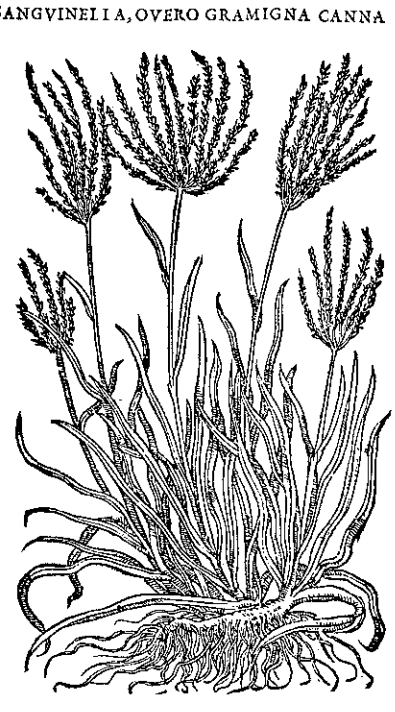
Notes

[1] FREUD S., (1915) [1917], *Duelo y Melancolía*. Madrid: Biblioteca Nueva, 1973.
[2] CALVO F., " L'Emigration: une réalité complexe dans la biographie de beaucoup de patients. " *Revue Française de Psychanalise* 1971, 5-6: 1015-1022
[3] CODERCH J., *Psiquiatría Dinámica*. Barcelona: Herder, 1982.
[4] TIZON J.L., *Apuntes para una psicología basada en la relación*. Barcelona: Hora, 1982.
[5] GRINBERG L., GRINBERG R., *Psicoanálisis de la migración y del exilio*. Madrid: Alianza Editorial, 1984.
[6] KLEIN M., (1940) " El duelo y su relación con los estados maníaco-depresivos " En Klein M. *Contribuciones al Psicoanálisis*: Tomo II Obras Completas, Buenos Aires: Paidós, 1975
[7] CASTILLON J., CAMPO C., LINARES J.L., PERICAY J.M., TEJEDOR M.C., " Life Events y patología: Elaboración de un cuestionario de cambios vitales adaptado a la población española. " *Actas del XV Congreso de la Sociedad Española de Psiquiatría*, Jaca 1983: 53-66





[8] GIGANTINO M , " La prevenzione del disadattamento sociale e delle tossicodipendenze nell'esercito. " *Minerva Psichiatr.* 1985, 26 (2): 201-203.

[9] BARROIS C., " Simulation of mental disorders. 1. Psychopatthologic and psychosociodynamic aspects in a military environment " *Ann Med Psychol* (Paris) 1986, Vol 144(1): 1-26.

[10] SEVA DIAZ A , *Higiene Mental*, Vol II Zaragoza: 1987.

[11] PEREZ-TESTOR C., *El Servei Militar com " esdeveniment vital "* Jornada d'Estudi de la Fundació Vidal i Barraquer. Barcelona, 1987.

[12] GOMEZ-IRIGO J., DOCE F., VALERO J A., *Prevalencia de los transtornos de la personalidad en la psicopatología castrense* Madrid, IV International Congress, International Federation of Psychiatric Epidemiology, 1987: 233 (Abstracts)

[13] MORENO J.L., MUINELO I., CABEZUDO M., IERAN A., BAEZA J., " Conductas autodestructivas, acontecimientos vitales y depresión. " *Informaciones Psiquiátricas.* 1988: 435-446.

[14] PEREZ-TESTOR C , " Aproximación al impacto que la incorporación a filas puede provocar en una población de jóvenes y adolescentes " En: MARTIN G., SELLARES J., SERRANO J., *Ante el espejo.* Barcelona: Fundación Francisco Ferrer, 1991.

[15] ARTIGUE J., " Variaciones en la personalidad del soldado " En: MARTIN G., SELLARES J., SERRANO J., *Ante el espejo.* Barcelona: Fundación Francisco Ferrer, 1991.

[16] BASSOLS R., " Drogaaddicció juvenil: un enfocament psicodinàmic. " En FONT J., VILA-ABADAL J. (eds) *La drogaaddicció: on som?: contribució a un estudi interdisciplinari.* Barcelona: Direcció General de Joventut, (Generalitat de Catalunya), 1987.

[17] FERENCZI S , (1911) " El alcohol y las neurosis. " En: FERENCZI S. *Picoanálisis (Obras Completas).* Madrid: Espasa-Calpe, 1981: 207-212.

[18] ABRAHAM K, (1916) " La primera etapa pregenital de la líbido. " En: Abraham K. *Contribuciones a la teoría de la líbido.* Buenos Aires: Ed Hormé, 1973.

[19] FENICHEL O., (1945) *Teoría Psicoanalítica de las Nuerosis.* Buenos Aires: Paidós, 1966.

[20] ROSENFELD H A. (1964) " Psicopatología de la drogadicción y el alcoholismo: una revisión crítica de la literatura psicoanalítica. " En: ROSENFELD H.A. *Estados Psicóticos.* Buenos Aires: Ediciones Horme, 1978.

[21] MELTZER D., " Revisión estructural de la teoría de las perversiones y las adicciones. " En MELTZER D. *Los estados sexuales de la mente.* Buenos Aires: Ed Kargieman, 1974.

[22] LAURITZEN J.B., BESJAKOW J W , BARDRUM B., " The association between drinking and smoking habits among conscripts in the Danish navy and army. " *Scand J Prim Health Care.* 1986, 4(1): 19-23.

[23] BURT M.R., " Prevalence and consequences of alcohol abuse among U. S. military personnel: 1980 " *American Journal of Drug & Alcohol Abuse* 1981-82, Vol 8(4): 419-439.

[24] ALLEN J., MAZZUCHI J., " Alcohol and drug abuse among American military personnel: prevalence and policy implications. " *Military Medicine* 1985, Vol 150(5): 250-255.

[25] PEREZ-TESTOR C., *Conductes addictives al començament del servei militar: una aproximació empírica des de la perspectiva de la incorporació a files com a esdeveniment vital i trasplantament psicosocial.* (tesis doctoral) Bellaterra: Publicacions de la Universitat Autónoma de Barcelona, 1991.

[26] EDIS. " El consumo de drogas en España. " *Cuadernos Técnicos de Toxicomanías n° 4.* Madrid: Cruz Roja Española, 1985

[27] ALONSO J.M., " Consumo y actitudes hacia el tabaco y el acohol entre los reclutas. " *Rev Esp Drogodep.* 1987, Vol 12(1): 3-14.

[28] CRESPO J., PEREA J.M., MARTIN M., " Estudio médico-social evolutivo de 361 enfermos alcohólicos de la provincia de Cádiz. " *Drogalcohol* 1981, Vol. 6(1): 3-28.

[29] CALAFAT A., y cols " Características del consumo de alcohol, tabaco y otras drogas entre alumnos de enseñanza media de Mallorca " *Drogalcohol.* 1983, vol 8 (4).

[30] COMAS D. " El uso de drogas en la juventud. " *Informe Juventud en España n° 4* Madrid: Ministerio de Cultura, 1985.

[31] VARO J.R , AGUINAGA M., *El consumo de drogas.* En *Encuestas sobre la juventud de Navarra.* Pamplona: Fundación Bartolomé de Carranza, 1983.

[32] VARO J.R., AGUINAGA M., *El consumo de drogas en La Rioja.* Logroño: Escuela de Asistentes Sociales de Logroño. Caja de Ahorros de Zaragoza, Aragón y Rioja. 1984

[33] BENSON G., KJELLSON S., " Drug abuse in military conscripts. Prevalence and background. " *Acta Psychiatrica Scandinava* 1984, Vol 70(6): 559-567.

[34] LANPHIER C M., MCCAULEY G.F., " Prevalence and consequences of nonmedical use of drugs among Canadian Forces personnel: 1982 " *American Journal of Drug & Alcohol Abuse.* 1985, Vol 11(3-4): 231-247.

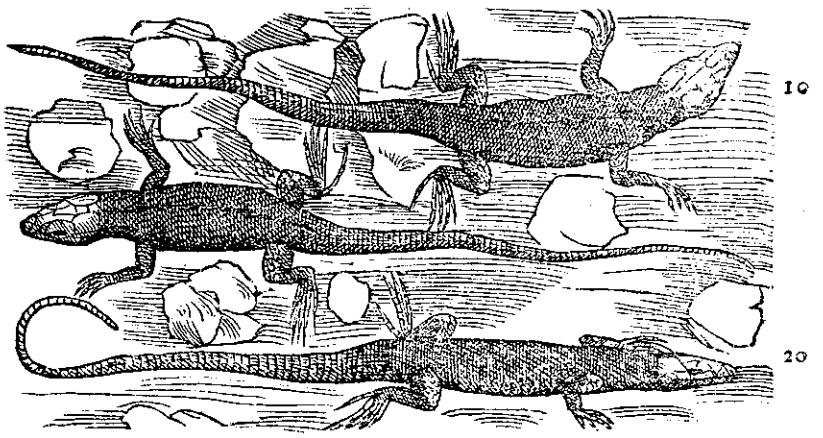
[35] SMART R., ADLAF E., *Trends in Alcohol and Drugs Use among Ontario Adults: Report of a Household Survey, 1982.* Alcoholism & Drug Addiction Research Foundation, Ontario: Research Paper, 1982.

[36] REVUELTA A., JIMENEZ J.L., " Estudio aleatorio del consumo de drogas en 150 jóvenes con edades entre 18 y 25 años. " *Phronesis.* 1989, vol 10(4): 193-197.

[37] VILA-ABADAL J , " Respecte a la toxicomanía juvenil " En Font J., Vila-Abadal J. (eds.) *La drogaaddicció: on som?: contribució a un estudi interdisciplinari.* Barcelona: Direcció General de Joventut (Generalitat de Catalunya), 1987.

[38] SOLER INSA P.A , SOLE PUIG J.R., SAN MOLINA I.L , BERNARDO M., " Cannabis. " En FREIXA F., SOLER INSA P.A. (eds.) *Toxicomanías: un enfoque multidisciplinario.* Barcelona: Editorial Fontanella, 1981.

LVCERTOLE.



JACK STEWART-CLARK

Drugs and European Politics

I want to make it clear to you *firstly* that it will never be possible to *eliminate* the drugs trade, only to *minimise* it, and *secondly*, that we will only succeed in this endeavour if all links in the drugs chain are tackled in a spirit of urgency and close cooperation at all levels.

We need to recognise that, on the one hand, the enormous profits which are generated by the drugs trade will continue to attract criminal activity. On the other hand, drugs will always remain a fatal attraction for various elements of society and particularly young people in their late teens or early twenties. In consequence, drugs are here to stay. We are, therefore, involved in a damage limitation exercise But let no one be for a moment beguiled into thinking that even this is anything but a major operation. The resources of the drugs traffickers are enormous. They know no frontiers, and they are prepared to stop at nothing to achieve their aims. Equally, to persuade young people to resist taking drugs is no simple matter, and to be successful will involve much money, the Commitments of Governments, and the cooperation of services such as the Police, Judges and Lawyers, the Church, Schools, Social Workers, Doctors and Nurses, as well as the family.

In my address to you today, I intend to concentrate on four elements of the drugs war. *All*, and I repeat *all*, of which must be tackled if we are to minimise the flow of drugs and to help our young people. These four elements are:

1. Limiting of the supply from the source, that is, where the drugs are grown or made

2. Improving the effectiveness of our Police, our Customs, and our legal system in dealing with drugs criminals.

3. Persuading young people from an early age of the folly of using drugs.

4. Providing a healthy environment in which our young people can be brought up

This list is, of course, not exhaustive.

First let me talk about drug crop substitution, and I hope that Dr. Ivan Zarat, who follows me, will not mind if I take his country, Peru, as an example

Today Peru is the *major* supplier of the world's coca leaf production for cocaine, and most of this is cultivated in the Hualaluga Valley in the foothills of the Andes and very near to the Colombian border. I have been there, and I have met the *campesinos* who grow the coca bush. They are not criminals; they are ordinary farmers who have increasingly come to rely on sales of coca leaves to maintain their standard of living. If you embark on a policy of forced crop eradication without compensatory measures, you do not solve the problem; you make it worse. Why? Simply because you are taking away the livelihood of thousands of peasants and into the bargain forcing them into the arms of the left-wing " Shining Path " guerilla movement, who are only too willing to make new recruits for their cause.

The relative futility of the South American drug eradication programme has been amply demonstrated by the fact that, despite the sustained, heroic, and perilous activities of the DEA, working with the CORAH, the Peruvian Police, the areas under cultivation have risen by some 500% over the past four to five years from 50,000 hectares to more than 250,000 hectares. And is this any surprise when Colombian drug traffickers come across the mountainous border with Peru and offer substantial sums in hard US Dollars for coca leaves or coca paste?

You will never persuade a Peruvian or any other farmer to stop growing coca until you replace his crop with an alternative which gives an income as good as he has been obtaining.

Now this, and I hope Dr. Zarate will agree, is difficult but certainly not impossible. The Hualaluga Valley is very fertile. It is possible to grow there palm trees for oil, fruit trees, and corn. The land is ideal for raising herds of cattle. The only problem is that almost no one has been able to do this because the incentives have not been there and because there are no good roads from the jungle area of the Hualaluga Valley to the coast.

The matter is made worse since beef, palm oil, and fruit are all at times imported into Peru, using up much needed hard currency.

Monies and skills need to be provided to Peru to build two main highways from the coast to the coca growing areas, and then a massive crop substitution programme should begin with the support of the local *campesino*. It is possible, with the right degree of will.

In this part of my address I have concentrated on one area—that of cocaine and Peru. But I do stress

that there are equal cases which can be made for improving the situation in other areas such as the poppy growing fields of the Golden Triangle of Thailand, Laos, and Burma and the Golden Crescent area of Pakistan and Afghanistan.

Firstly, we need to recognise the extent of the world's drug trade. Today I estimate that the total street value of illegal drugs of abuse is in excess of $ 100,000,000,000. To put that into perspective, it is greater than the Gross National Product of Denmark — $ 95 billion. It is equal to the combined turnover of the 4 largest industrial companies worldwide. It is nearly as large as the entire European Defence budget. And the main profits do not go to the grower of the crops, nor to the street dealer, but to the criminal organisations who mastermind the operation. Consequently, the resources of relatively few large drug traffickers, perhaps a thousand or so at the bigger end of the scale, are able to finance the most modern equipment, to pay what it takes to employ those operating the trade on a daily basis, to use banks and money laundering operations with impunity, to bribe politicians and Government officials, and to funnel their ill-gotten gains into legitimate investments.

I explain this because so often the huge scale of the problem and the resources of the traffickers is not sufficiently recognised and the allocation of monies by national governments is, in most cases, still totally inadequate. No war has ever been won, no enemy has ever been kept at bay without the troops, the weapons, and the ammunition to do so. The same is true in the war against drugs barons.

There are many actions which must be taken. Here are a few of them:

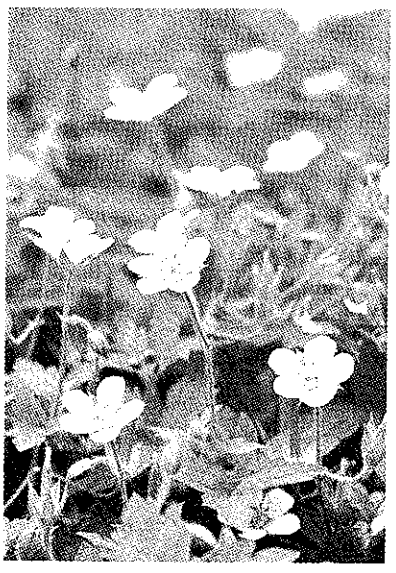
— Police and Customs need better trained staff and the equipment to deal with the drugs problem. Above all, this means provision of up-to-date surveillance equipment and the most modern of computers to transmit, coordinate, and store vital details about drugs, their movement, and those who transport them.

— Across Europe there needs to be a series of *national drugs intelligence* units who can compile and supply vital information to Police and Customs. There also needs to be a central European intelligence unit which can coordinate information.

— All countries of the European Community need to be able to carry out *Controlled Deliveries*; that is, Customs and Police must have the ability to be able to follow a shipment of drugs, once detected, through to the final destination. In this way it will be possible to get at the organisation behind the drugs shipment rather than at the drugs themselves, which, once seized, are worthless.

— Drugs traffickers, or suspected drugs traffickers, must have their *assets* frozen and, if found guilty, seized. The proceeds of these should be contributed directly to a fund in each country which is specifically designed to boost monies being spent on Police and Customs dealing with drugs and also to rehabilitating and educating young people who are affected by drugs.

— *Sentences* against drug traffickers need to be stiffened and made similar in all countries of the European Community. Today there is far too much difference between the sentences passed by the courts in different countries. A drug trafficker will naturally tend to operate from a country where he knows penalties for drug trafficking offences are the least.



— It is of great importance that a multilateral *extradition* treaty should be established to be complied with by all countries of the European Community. At present there are considerably more bilateral extradition agreements established between individual member states than five years ago, but even so there is still room for criminals to locate themselves in some countries, knowing that they cannot be extradited to other countries in which they have committed their crimes because of no extradition agreements.

— The operation of different *systems of law* in different countries of the European Community presents added problems. The operation of Roman law is very different from Common Law and this often makes it difficult for justice to be pursued across national borders as one would wish.

— One area which has recently seen much progress has been in the area of *laundering of black money*. It is well known that, whereas the big drug trafficker will put a great a distance between himself and *the drugs* he organises to be purveyed, he will keep relatively close to *the money* generated from their sales. Consequently, recent European Community legislation to make it mandatory for banks and financial institutions to report on suspected black money transactions is to be welcomed. Drugs are essentially a trade carried on for cash, and so it is that large cash transactions taking place through financial institutions give valuable clues in the tracing of drugs criminals to their lairs. Having said that, however, the methods of carrying out these transactions are becoming increasingly sophisticated and more difficult to trace.

— Further intelligence can most usefully be gathered about the movement of drugs, their couriers, and methods of transport by sys-

tematic recording of, for instance, ships, ships crews, and numbered containers. This all gets back to where I started in this section of my talk by illustrating how important accurate and fast intelligence is to get at the drugs traffickers. This has to mean improved cooperation and a greater sense of urgency between governments, Police Forces, and Customs.

The third section of my talk deals with education. Although more difficult to quantify in terms of specific measures to be taken, everyone will surely agree that if we can persuade and educate a sufficiently large number of young people not to take drugs in the first place, the problem would become much less. Unfortunately, this is no simple matter because, as we have so eloquenty heard in this conference, drug taking is tied up with family background and circumstances, living and working environment, the culture of the moment amongst young people and the general world in which we live of speed, materialism, and lack of contact between the generations. This, however, makes it all the more imperative that we look in depth at drugs education amongst young people and that we do find solutions which will work.

Children, in my view, need to be educated about drugs at a very young age. It is, after all, common to teach a young child not to walk across the street before looking left and right. The same basic approach is needed in regard to drugs.

Education of children about drugs is, of course, no simple matter. In the first place, who does the educating? Parent or teacher? It is certainly no good asking either to do so unless that teacher or parent is himself or herself educated in what drugs are all about. They should at least know what drugs are dangerous, what signs to look for in a child who may be taking them, and how to put across the message of drugs in a way that does not in fact encourage their being taken. So you have to educate the teacher and the parent, and this in turn means that we need to see drugs as an important part of a teacher's curriculum during training. And mechanisms need to be found to helping parents understand more about drugs. This is not easy, for children at risk often come from broken homes, or their own parents are in contact with the world of drugs to some degree.

We also need to provide for the education of doctors, nurses, social workers, policemen, and all those who are in contact with young people who are at risk for taking drugs. This means that governments need to carry out programmes which ensure that all these elements of society do get the right amount of knowledge about drugs, and that involves significant amounts of money to ensure that the right training facilities are in place.

I think it is most important that young people at school should *themselves* take part in the educating as well as the process of being educated. Peer pressure is very strong. Indeed, today probably more young people come to take up drugs because of the persuasions of their friends than from any shadowy street corner pusher or from any other source.

Cooperation between bodies dealing with young people and drugs is also terribly important. Not least between parents and teachers. In the area of the United Kingdom, which I represent, there is an excellent example of cooperation. Once each month the County Council Drug Advisory Council meets. This consists of representatives of schools, parents, social workers, drug rehabilitation councillors, doctors, policemen, legal people, and bureaucrats. The meeting enables a regular flow of information to pass back and forth about drugs, young people in the County, and the problems being encountered and the solutions to them. This helps generate a genuine broad spectrum of views and often results in excellent drug policies being implemented County. Also a regular exchange of information and intensive evaluation takes place. More of this sort of thing is needed both at local and at national level, but also on a European basis. We badly need to set up a European drugs evaluation centre for this purpose.



The final part of my talk to you deals with society itself and the kind of environment that we build for our youngsters. There is no use in our having the best enforcement and educational policies in place if we do not provide an environment where young people can be brought up happily and healthily. Unfortunately, we see, all too often these days, conditions which openly encourage drug taking. They are partly the result of the cities that we have and the buildings that we construct and partly the result of the kind of society which we live in, where moral values are depressingly falling.

It is too often apparent that we have succeeded in building in our inner cities veritable concrete ghettos. Town planners, architects, builders, and property developers have simply not considered, or not wanted to consider, the environment in which these buildings were erected. All too often little consideration has been given to the provision of parks and to sports and leisure facilities. The result has been inevitably that young people have been forced into getting their amusement in the worst possible places with predictable results.

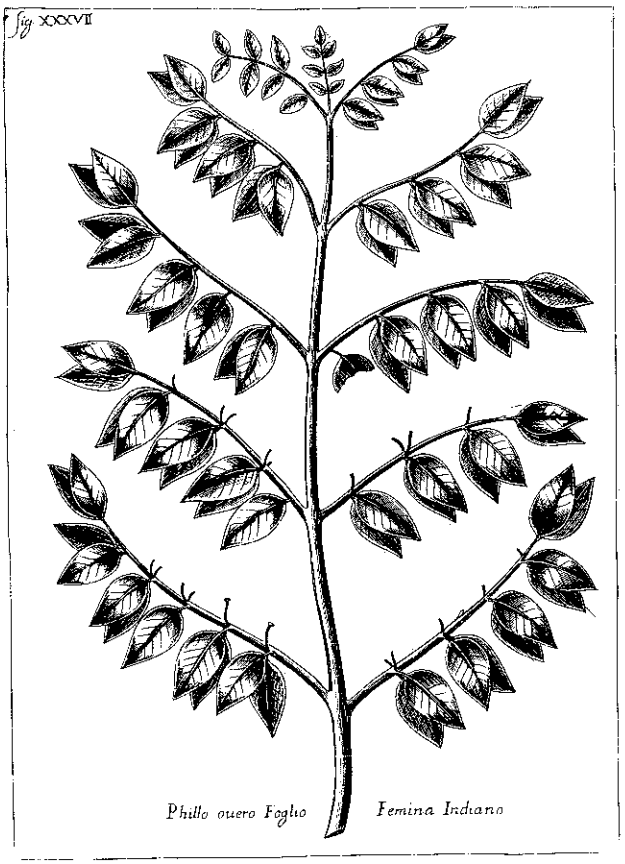
Today, in western Europe fortunately, we are much more environmentally conscious than we have been, and this is having a good ef-

fect on planning and the types of buildings we erect. But I make the strong point that I do not believe, even today, that nearly enough attention is given to integrated plans which provide an environment for growing up where young people can in every sense of the word " breathe fresh air. "

This, then, finally brings me on to the position of young people themselves. Surely it is in their interests and in the interest of all society to ensure that they are brought up to enjoy healthy living. Every young person, boy or girl, has the right to be taught how good mental and bodily health can really help them. This entails the building of sports facilities, of clean modern schools, and the provision for every child in the cities to find out what the countryside is like. Above all, young people need to be able to enjoy amongst themselves the pleasures of healthy activities and to know, despite the frequent odds against them, what the better values of life can be like. At the least this will be a strong antidote to the television set with its excessive violence

This may appear a far cry from drugs. It may appear to be preaching the impossible, but I am convinced that until we can turn our society round to restoring and improving our basic moral values, and those of our children, we shall fail in all we do in the war against drugs. The role of the church and all of us here today is vital.

Sir JACK STEWART-CLARK
Chairman of the Commission for Drug Problems of the European Parliament
Great Britain



JUAN ZARATE GAMBINI

Economic Implications of World Drug Traffic

A global threat

The illegal drug traffic and drug addiction are universal problems and its political, social, economical, environmental effects and its percussions on public Health are enough to call it a crime " against Humanity. "

In the world, there are about 48 million of regular addicts. Therefore, the economic power of drug trade is now of considerable proportion.

The situation began to develop in the 80s, when the quick fall of the prices for raw materials and the accumulation of the foreign debts of the developing countries hit our economies badly. Poverty worsened and became the basis for this global threat that is illegal drug traffic. Its sales rate exceed those of oil, considering that the criminal drug organizations move yearly about 500 thousand million dollars; ironically inferior only to those of arms smuggeling: a proof for the interrelation between poverty and drug traffic, which strengthen each other.

Production and traffic

The fall of the prices of products like sugar, cotton and wheat were the reason why many farmers turned to more profitable cultivations like coca, marihuana or puppy. In Latin America, the main problem is the over-production of coca leaves, an indespensable raw material for the production of cocaine.

This plant, considered divine by the incas, has been known and used since the 6th century by the Andes-'populations. They chew its leaves to combat fatigue and hunger—a very ancient tradition.

Scientific studies show that coca leaves contain, besides cocaine, twelve more alkaloids, as well as vitamines and proteins; maybe many more.

It is grown at a height of 500-1,200 meters above sea level, at a temperature of 18-25 centigrades, with a humidity of 70 to 80%, developing in slopes of up to 45 x and under very rustic circumstances.

One of its main particularities is the yield: the leaves can be harvested every 3 months with a annual production of 1000-2000 kg per hectare, for aproximately 20 years.

Only in the High Forests of Peru, there are more than 20 million hectares with perfect agricultural characteristics for the growing of coca; today, there exist 200.000 hectares of " cocales, " whereas in the 70s, it were only 18 thousand hectares, cultivated mostly for legal purpose.

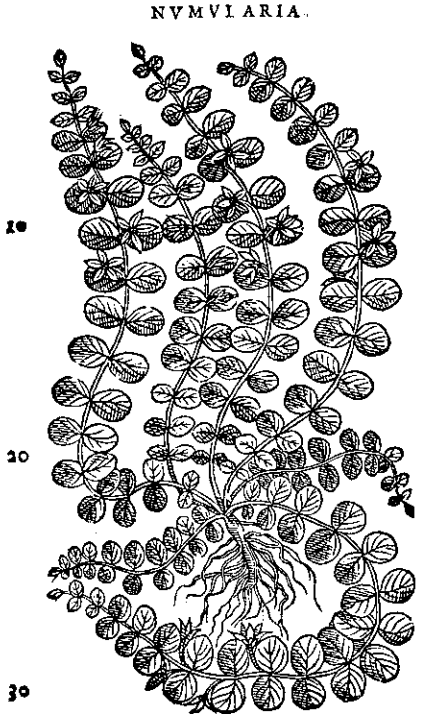
The strong increase of demand, especially in the United States and in Europe is the reason for this desproportionate expansion, up to 200 thousand hectares in Peru and 60 thousand in Bolivia, the main growers; this means a possible production between 3 and 4 thousand tons of basic cocaine paste; figures which should be reflected on to understand the dimensions of the problem.

If we consider the continuous increase of demand, the enormous profits of traffickers, the social-economical circumstances, the high profitableness of cultivation and disposition of suitable soil for coca growing, we understand the great effort we have to make in order to cope with this delicate phenomenon.

The growers dry the coca leaves and sell them for 400-1000 $ per ton to small groups of traffickers, who extract the alkaloid by means of chemical processes, obtaining the basic cocaine paste. They do this in primitive laboratories that lie in inaccessible areas to trick police control. The paste is then sold to international organizations for 300-1000 per kg in the same place and /or taken to the points of collection. The chemical process involves basically sulphurous acid, calcium carbonate and kerosene—means which can be easily provided, though their production, sale and use is controlled, because they are used for domestic purposes.

The situation is due to the poverty which reigns in the majority of our societies, to the stimulus given by the monopolist phenomenons of its market, having replaced the food cultivation by cocales, to the massive migration of farmers to these regions, to the extinction of the flora and fauna due to deforestation and the severe ecological damage; affecting the social-cultural pattern of our population and perverting even more the internal economical process of our countries.

Large international traffic organizations have created wide nets in the coca-regions, in complicity with the inhabitants of a great number of villages which are dedicated to drug traffic; not only for the production of basic cocaine paste, but mainly for its storage and transport to refinery laboratories, which are generally located close to borders with neighbour countries to hinder police intervention and allow escape in case of actions of prohibition.



About 90% of the production of basic cocaine paste leaves the region by land, fluvial or air traffic for the refinery laboratories, and from here abroad, where it is transformed in chlorhydrate, which will then be commercialized in the centres of consumption by these international traffic organizations.

The most common means of the drug's transport is the airplane: mostly small Bolivian, Brazial, American or Colombian sporting aircrafts, sometimes airships, with forged markings. All these aircrafts which violate our airspace are perfectly equipped with additional fuel tanks for a major flying autonomy and special systems for communication. They use the many secret airports that have been buildt for this purpose by the traffickers in inaccessible regions of our coast and forest. In Peru, f.e. 179 of those airports have been discovered in permanent operations and immediately destroyed by dynamite. However, the traffickers are able to rebuild them in a few hours —therefore, the police has to make use of new sophisticated equipment for the destruction and the permant air control.

In the refinery laboratories they try to eliminate the impurities and superfluous chemical elements, using basically potassium permanganate, acetone and ammonia: chemical substances which are not produced in Bolivia and Peru. Therefore, a smuggle of these elments coming from the industrialized countries is organized. They reach our countries secretly, nearly always passing the Amazon River.

Exploiting the low cultural and economical level of the inhabitants who live in the critical areas of illegal drug traffic, the foreign traffic mafias develop a plan for the manipulation of those inhabitants. They try to create a social basis by means of the infiltration of Unions, defence groups and other organizations with the aim of creating a gap between the farmers and the authorities; they pay to get their support, and they organize slandering campaigns against the institutions and authorities which try to prosecute them. They spoil the ethical and moral values by means of corruption, and they make a very skilled use of violence; even with killers and mercenaries, in order to intimidate and to achieve their aims by compulsion.

This situation has worsened especially in Peru, where in the recent years traffic gangs have started to cooperate. In some cases they work together with other subversive groups that operate in the same area. Their aim is the creation of "Freed Territories" which facilitate the realization of their unlawful aims. Obviously, this kind of symbiosis is a further hindrance to the eradication of those criminal phenomenons.

The above mentioned refinery laboratories are built, equipped and managed by the international drug traffic organizations. The elements for the construction, the mechanical and electrical equipment and even fuel often come from neighbour countries (that is the reason why they are built near the borders). Therefore it was necessary to sign Bilateral Agreements among South American countries to encourage Combined Operations.

After having been extracted in the laboratories, the basic cocaine paste becomes basic paste of washed cocaine, worth 2000-4000 $ per kg. It is then transported to different countries (recently in large quantities to Columbia) for its crystallization, which makes the transformation into chlorhydrate of cocaine possible.

Its esteemed value is now between 15.000 and 45.000 $ (wholesale). Finally, it enters the circle of commercialization in the consumer countries, stimulated by a demand that creates an imbalance between those who a caught in underdevelopment and those who produce and keep it, causing important mechanisms of financial accumulation.

65% of the coca leaves destinated to the global cocaine production is harvested in Peru. It has been said that this helps the farmers to earn money and that it reactivates Peruvian economy, being a source of foreign currency. However, according to that what has been said before, the high value of cocaine is mainly obtained by transformation and commercialization: phases which do not take place in Peru, a country where coca has been cultivated for eons, destinated to other uses than cocaine production, which have nothing to do with it.

The contribution of this illegal profit to our economy is minimal compared to the sums which are spent in Peru in order to combat this crime.

Besides the above mentioned aspects, the drug problem in our countries is also linked to ecological disasters of our environment: the lack of workers for the harvesting of coca leaves is compensated by the drug traffickers with the use of pesticides like Paraquat which is highly contaminating.

For the production of the basic cocaine paste, substances like kerosene, sulphurous acid, calcium carbonate and others are used and their residuals are washed into rivers or nearby grounds. This does not only threaten flora and fauna; the phenomenon of vaporization the toxic vapors pollute our whole environment.

The illegal economy of drugs

The illegal trade of coca leaves and basic cocaine paste has spread throughout among the production regions, where almost the entire local economy is revolving around this illegal traffic; an exaggerated valuation of the goods and services linked to it cause local inflation which hits badly all those activities, that are not related to coca cultivations. The wages paid to local workers for growing and harvesting of coca are 4 or 5 times higher than a normal wage paid by a grower of other products. Therefore, local agriculture is week and does not develop to the degree it should in a region of the size and quality like the Valley of Huallaga Chapare for example.

The money that comes to the region is used to lead thousands of farmes towards "modern life," however by means of the purchase of luxury goods due to the idiosyncrasy of the trafficker; certainly, they do not better health or education.

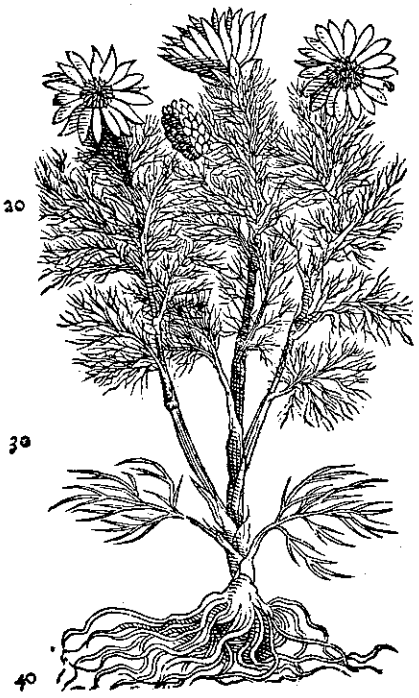
Since money is effectively the means of exchange, its immediate availability is fascinating for the growers and intermediaries of the drug circle. But only a small fraction of the profits passes to the growers, because the biggest profits are obtained by the commercialization of drugs in the centres of consumption.

On the other hand, due to the problems of the balance of payments which have recently become permanent because of foreign debts, we witness change of behaviour of those governments with currency problems, in view of the extraordinary non-traditional quantities that come from the illegal sector: they take a relatively permissive and tolerant position. Due to the lack of foreign investments and credits by financial structures, the foreign currencies gained by drug traffic, have started to play a leading role in the countries.

Though the dollars obtained by drug traffic seem to satisfy the immediate needs for foreign currencies, it is doubtful that they really can solve the economical problems of the countries. On the one hand, it is not a stable source of money, as shown by the flight of capital, and on the other it is absurd for a country's economy to depend on this illegal money.

This situation is confirmed by conclusions drawn by Columbian authorities: the drug traffic has no positive influence at all on the economy of Columbia, and the country would be better off without it. Most of the coca and cocaine profits do not return to Columbia. What does come back interrupts legal economy. Violence and political turbulences linked to drug traffic have costed thousands of millions of dollars in form of flight of capital and the loss of investments and tourism, two activities which have a far more stimulating effect on economy than the clandestine drug dollars.

It is difficult to assess the exact quantity of profits and economical means linked to illegal trade of stupefacient and psychotropic substances, because they fluctuate according to the market trends, the costs of production and the results of the anti-drug actions realized by authorities. Nevertheless, it is possible to have an idea of the economic dimensions of drug trade by some simple considerations, for example: the value of the chemical elements which are used in production is multiplied by 10, when they come to the laboratory; the price of one kilo basic cocaine paste is 15 times



higher, when it is converted in chlor hydrate of cocaine, and this drug multiplies its value 10 times, when it is commercialized in dosis for the consumption by addicts. For this reason, commercializing 1000 kg of cocaine, sold at wholesale in the United States, the trafficker earns about 5 million dollars; a profit that is even higher in Europe.

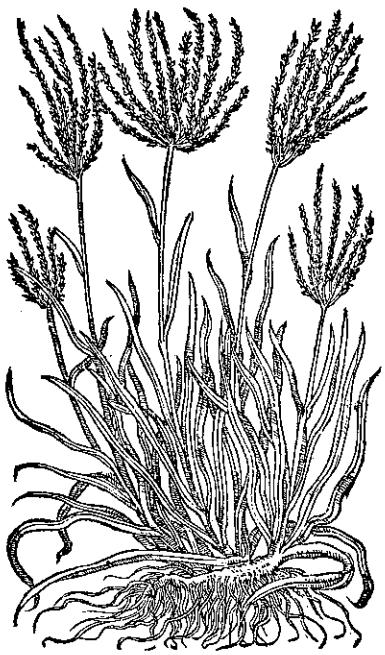
A very eloquent figure for these enormous profits: the single Colombian cocaine cartel has a 50.000 million $ gross profit yearly. But, ironically, the major part of the drug traffic profits is invested abroad and/or put on foreign bank accounts, especially in the United States, Bahamas and the Caribbean Islands.

In order to legitimize their profits, the traffickers develop sophisticated systems in order to occult the money's true origin. Unobserved, banks and other financial institutions can serve as intermediaries, transferring sums by the use of those systems in which supervising authorities cannot interfere. The bankers want to safeguard the global stability of the bank system more than the legitimity of the individual operations of their clients.

Basically, we can distinguish between three modalities suitable to "clean" money: the first is the transfer to another country, known as "tax havens" by post or multiple transactions with branches of the banks mentioned above and/or the opportune handling of shares. Second, the opening of accounts abroad under false names, creating foreign companies and concerns which do fictitious business and/or buy goods and bonds; and finally, the attainment of credits from foreign banks which are then mixed with the illegally transferred sums; creating false contracts for services and/or leasing of goods.

For the development of this system, the traffickers rely on countries that offer special conditions for deposit accounts, due to low taxes, confidentiality in banking, suitable laws for the creation of companies; countries, which on the other hand are very rigid concerning proceedings and formalities, offer a good communication and transport system, generally close to the (TID) routes, with minimal restriction of exchange of currency, professional services for the realization of their intentions and a very favourable atmosphere.

SANGVINELLA, OVERO GRAMIGNA CANNA



Regional impact

The intensification of illegal drug traffic and the abuse by undue consumption of stupefacient and psychotrophical drugs, embedded in a profound social and economical crises which needs political intervention, is the main reason for the apprehension of the peoples and governments of the region.

The impact due to the actions of these criminal organizations which undoubtedly are worsening the situation, determines the following trends:

— the possible aggravation of the crisis of those Institutions that have to tackle this difficult criminal reality; proven by the weak preventive and/or repressive interventions, the bad coordination and the lack of integrated strategies.

— the overrating of money due to a system of money "cleaning;" the purchase of chemical agents abroad, the paying for protection services and transport operations and the use of the surplus for luxury;

— an accelerated deterioration of the agricultural diversification in regions of vegetable production, due to the value obtained by its transformation to coca growing, which produces relatively more profits; by this, the agricultural production and export is obstacled as well as the possibility of getting foreign currencies by traditional export;

— a gradual loss of quality of life in the rural regions, because the grower does not control the prices that are manipulated by the net of buyers who are have joined with the traffickers; because he has to live in such a violent region and because his condition as a monocultivator does not allow him to be self-sufficient;

— increase of the migration towards the regions of production, which absorb the workers for cultivation of coca as well as for the processing and traffic of drugs; the production of food and raw materials is moved away and the workers

are directly or indirectly involved in crime;

— a serious threat to environment, since chemical agents are used for the production of drugs and elimination of residuals and pesticides are used indiscriminatedly in coca plantations;

— aggravation of the social and financial differences due to the high costs of living, as a consequence of the circulation of drug traffic surplus; a strong trend towards consumption and nonproductive investment;

— political pression on governments and institutions, the local attempt of legitimization by exploiting elections, the creation of a vast net of corruption; the simulated satisfaction of needs the donation of equipment, money gifts for support and security... those who oppose are calumniated and projects and programmes for the replacement of ilegal cultivations are hindered;

— in the regions of cultivation, violence is fostered. Paramilitary troups are created. They try to isolate the region, to get the territorial control and to disorganize and/or multiply the operations carried out by the police;

— deterioration of bilateral and multilateral relations as well as of the cooperation of International Police with the Governments, refering to inefficiency and/or bad administration of the governmental programmes; increasing the differences of the interpretation of the problem, or moving certain people against the anti-drug programmes.

Finally, we have to comprehend that the international organizations dedicated to IDT are more and more agile, they are better organized than the forces which try to combat them; they adapt and renew whilst governments are not able to cope with the problem. We think that a global strategy is indispensable: its main tasks would concern the reduction of the demand, the persecution of the crime on the ground of an adequate exchange of information and a joint attack on the centres of the multinational criminal companies; the development of alternative economic solutions to reduce cultivations of drug-destinated products and a a suitable and opportune international cooperation and support.

General JUAN ZARATE GAMBINI
Director of the Anti-Drug Programme
Peru



HANS EMBLAD

The importance of Drug Demand Reduction in Producer Countries

The attention of this conference is focussed on the situation which the world is facing today, as we search together for more effective means of dealing with the problems caused by drug abuse. There have, of course, been other international conferences in other places which have tried to achieve the same goals. If we are not merely to repeat the many fine and well-intentioned words which have already been spoken on this subject in previous conferences, then we must be prepared to look at the problem of drug abuse from the point of view of the poor of the world, as well as from the point of view of the rich, industrialized nations.

To do that, we need to recognize that today's situation is the result of a series of events, attitudes, and decisions which have occurred over the past 30 years. If we can understand how the current situation has come about, then we may be in a better position to take action, particularly in relation to those parts of the world whose real needs have for too long gone unrecognized, because we have tended to see them as one of the causes of the problem, rather than essential to its solution.

When we think of drug abuse, we often think only of the misery of addicts living in the inner cities of North America and Europe, a misery which has its roots in drugs produced in Asia or South America. But this image of drug abuse is something which is comparatively recent; and it is not the whole story. It contrasts vividly, for example, with traditional patterns of drug use in those same producer countries, where drugs were generally consumed only for ritual or medicinal purposes. The village elders might smoke opium as they pondered about community issues; the peasants might chew coca leaves to help offset the effects of altitude sickness; the wedding, birth, or funeral might be celebrated with intoxication. But all these uses were part of the cultural tradition and rarely led to problems.

That picture of gentle rural life seems very distant from the violence and cultural decay of today's urban centres. So where, we should ask ourselves, have we made the mistakes which have led to the current situation? Let us re-tell the story of the last 30 years to see if we can identify how events have veered so far out of control.

It was in the sixties that the phenomenon of modern drug abuse first became apparent. Much has been written about the reasons for the emergence of this phenomenon. In part, it reflected a dissatisfaction in Western societies with empty cultural values and the growth of consumerism. In part, it resulted from the recognition by organized criminal networks of the potential profits to be made from encouraging and supplying addiction. For these and other reasons, the market was there and the traffickers were ready to supply the drugs. Almost overnight, it seemed, heroin had appeared on the streets of cities in North America and Europe.

Society's first reaction to this new phenomenon was incomprehension, swiftly followed by impatience. In a post-war world, where so many people had so much more wealth than ever before, there was simply no room for the many social problems caused by drug abuse. There was no need for it and no place for it. It threatened the expansionist optimism of the times, and everybody agreed that the best thing was simply to get rid of it, as quickly and expeditiously as possible. As a result, there was a rapid expansion of anti-drug police action in all those countries. But national authorities realized that it would not be sufficient to cut off the supply at home. They also had to cut off the supply at its source. In the international arena, therefore, the rich countries insisted that the developing countries, where the drugs originated, should suppress the supply with equal vigour, in order to break the first link in the chain that ended up in New York, London, or Rome. Those producer countries in the developing world quite understandably found it difficult to respond with much enthusiasm to these demands. For them, drug abuse still seemed rather a remote problem.

Despite repressive measures at home and despite the insistence upon repressive measures in the producer countries, it gradually became clear that the international drug problem was growing, not diminishing. This further polarized the positions of the consumer and producer countries. Thus, on the one hand, there were the rich, industrialized countries, bewildered and frustrated by a problem they were failing to solve; and, on the other hand, the poor, developing countries, finding themselves held responsible for a failure which they could scarcely, in all conscience, acknowledge as their own.

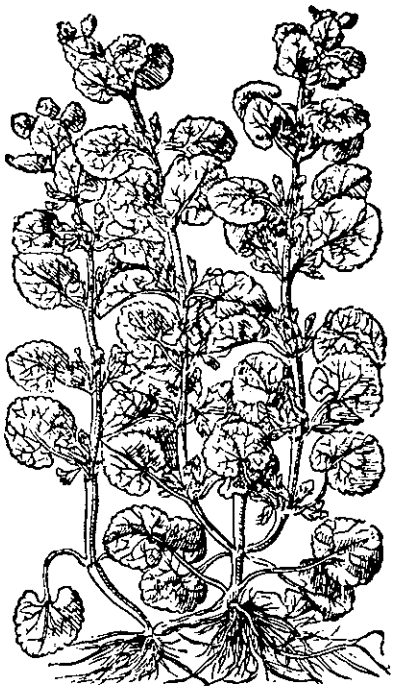
During this period, nobody paid much attention to demand reduction. In the developed countries, it is true, there were some desultory

attempts at preventive education and some isolated efforts to improve treatment services, but everybody still believed that the real answer lay in better and more vigorous policing, in the enforcement of the law and the strengthening of customs procedures. Certainly, in the producer countries themselves, there was no investment in demand reduction activities. From the point of view of the industrialized world, that was an irrelevant consideration. The problem was simply how best to tear out the crops and break up the trafficking networks.

But our story does not stop there. Gradually, in the face of these rather ineffective measures to reduce supply, the situation began to change. First of all, it became clear to the traffickers that it was more efficient to process the drug at source and to transport it in its refined state, rather than to rely upon laboratories in the consumer countries. Both in the so-called golden triangle countries (for heroin) and in the Andean countries (for cocaine) sophisticated laboratories were constructed to transform the poppies and coca leaves into something easier to transport and to trade. It was also something which it was easier to become addicted to at home. Thus, whilst it had been possible for opium-eating or coca-chewing to be an integral part of culturally accepted traditions, the high purity of the heroin and cocaine that were suddenly available led to the rapid development of abuse problems in the producer countries as well. The drugs were cheap, easily available, and powerfully addictive. What had once been a problem on the other side of the world began to become a home-grown problem, which threatened to spread as rapidly in producer as in consumer countries. Indeed, it was suddenly apparent that every country either was, or could quickly become, a consumer country.

Meanwhile, as the situation worsened in all the countries involved in this viscous circle of supply and demand, so international tempers grew sharper, and the impatience of the sixties gave way to a more explicit intolerance. Some of the governments of the rich, industrialized countries hinted that maybe the poorer producer countries were not being as cooperative as they pretended. Why could they not just stamp out the cultivation and so rid the world of this problem? Others recognized the difficulties in implementing this line of thinking and began to look at possible alternatives, such as crop substitution, but most still thought of such schemes as the soft option, no serious challenge to a firm international commitment to sustained repression, at every stage from cultivation to consumption.

In other words, this is not a very optimistic story that I am telling today. The situation in the industrialized countries is all too well known. Although there may be some signs of improvements here and there with some drugs in some countries, the general trend is still towards a global increase in drug abuse in all its forms. What I want to emphasize, however, is that, yet again in this worsening situation, it is the producer countries in the developing world which are now being hit the hardest. Yet again, it is the poorest in the world who are finding themselves burdened, not only by their own difficulties, but also by the difficulties that result from the avarice of others.



Like all good stories, this one has a moral. The moral of the story is that the price we pay for dependence is too high and that it is the poor of the world who are contributing disproportionately to the payments. At the individual level, drugs cause physical and psychological dependence in individuals and families. At the collective level, drugs cause economic dependence in communities and countries. And at the most profound level, drugs cause cultural and spiritual dependence that can undermine our trust in our fellow men. At all these levels, it is the producer countries in the developing world which are most severely affected.

It would be a mistake to think that in those countries drug abuse affects only a minority of the population, concentrated in areas where drugs are produced or associated with the trafficking networks. We only have to look at the situation in countries like Thailand, Bolivia, or Pakistan to see how very rapidly drug abuse has spread out from a relatively narrow base to reach large sections of the population. In addition, there are now further complicating associated factors —not just criminality and violence, but diseases linked to drug-taking. HIV infection and AIDS can spread literally like a plague in drug-users and then from drug users to the rest of the community. Five years ago, there were nine HIV-positive drug users in Thailand; today there are 23,000.

It is not only that these countries are the hardest hit. They are also the countries with the weakest defenses. Generally, they have a health sector already starved of resources, a health sector which is stretched almost to breaking point in trying to deal with the endemic diseases associated with poverty, malnutrition, poor housing, and lack of sanitation. Nor are there sources of official funding to divert towards the health sector, to help it deal with the increased needs resulting from the problems caused by drug abuse. Theirs is a complete societal vulnerability, in which the impotence of the health sector to take effective action is matched by comparable constraints in the education sector, the youth sector, the social sector generally. Drug abuse,

in other words, has become an integral part of the problem of development. It would not be too much to say that in some countries it has become *the* problem of development.

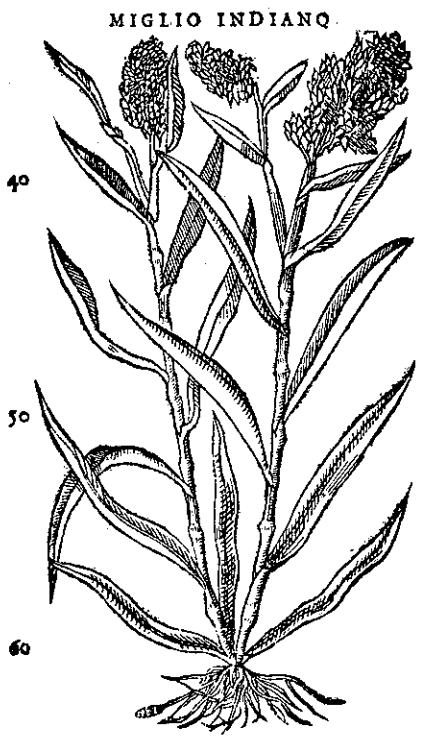
At this conference, we are focussing on drug abuse, and therefore we tend to see the other ills of society through that perspective. In a sense, however, it is irrelevant whether drug abuse is the number one priority, or the number two, or four, or ten. It simply is a priority which, if it is not addressed, will undermine the capacity of a country to deal with any of its other priorities. Even just in terms of its direct impact on health, drug abuse is not only associated with AIDS, but with increased rates of hepatitis, tuberculosis, sexually transmitted diseases, and many, many more. Its social impact is wider still, undermining families and communities. It diverts scarce resources urgently needed for other health and social problems.

On the face of it, Mr Chairman, we have reached an impasse. On the one hand, the industrialized countries are footing an ever-increasing bill for the eradication of cultivation, which ends up in supporting law enforcement programmes which are neither as effective nor as humane as they should be. At the same time, this investment, massive though it is, does not even approach what would be needed to compensate producer countries for the losses which would occur if the drug trade were to be eliminated. The governments of producer countries are therefore forced into lukewarm acceptance of assistance to control something which they are in fact incapable of controlling by the means specified.

This is, quite simply, a tragedy. It is a tragedy in human terms and it is a tragedy of lost opportunities. If we are to try to rescue the situation, then we must do so by focussing on the practical realities of demand reduction. This will require a radical reorientation on the part of both developing and developed countries. For developing countries, we need to focus on how much they are suffering themselves. That means individual and family suffering, the economic losses, and the cultural impoverishment and loss of national identity. Who is to blame them if they give low priority to crack addicts in Washington? But once these countries really understand the sheer scale and intensity of the problems they are experiencing themselves because of drugs, then they will become much more willing and effective partners in global efforts at demand reduction.

For the industrialized countries, it means understanding that drug abuse is a far wider concern than how best to organize needle and syringe distribution so as to cause less offense to the good citizens of New York, Rome, or Amsterdam. It means recognizing, in other words, that drug abuse is not just my problem, or your problem, but that it is *everybody's* problem, requiring everybody's participation in its solution. If such a reorientation could be achieved, it would signal to the governments of developing countries that we no longer think of two worlds of drug abuse, but are willing to act together in a common programme of action to reduce global demand.

All this will require at least three new ingredients. The first is the willingness of governments from developing and developed countries alike to abandon exclusive reliance on repressive strategies which, though important, have been demonstrated to have insufficient impact and to be prepared to work together creatively and with trust to achieve truly comprehensive programmes in which demand and supply reduction reinforce each other, rather than competing. Secondly, it will require the mobilization of international assistance on a new scale, a scale commensurate with the size of the problem and the size of the threat it poses to global development. And thirdly, it will require an enthusiasm for building new partnerships, not just between governments, but between international organizations, nongovernmental organizations, aid agencies, foundations, and, especially important in today's context, church organizations.



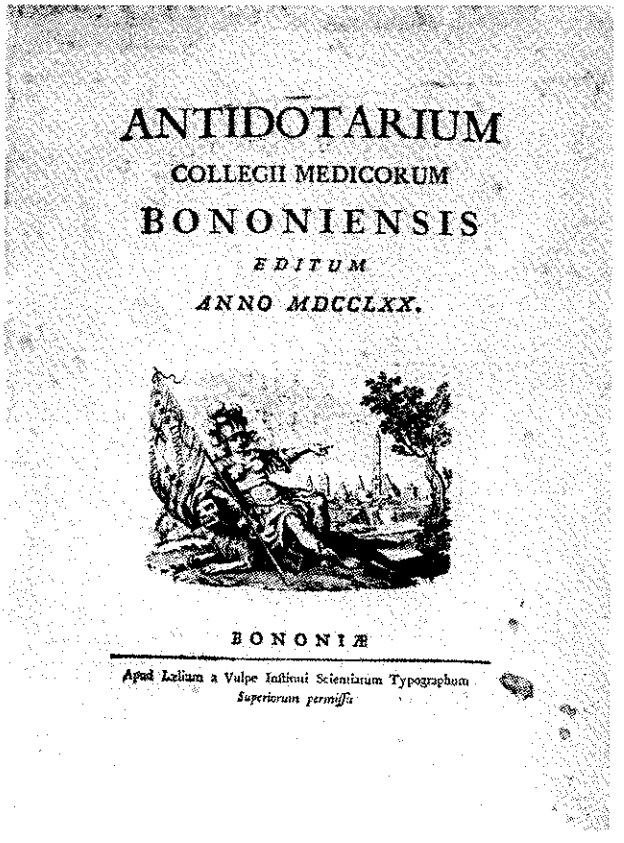
We have seen how the problems of drug abuse are enmeshed with many different strata of society in developing countries. It is part of the world of the slums that cluster round the edges of so many of the great cities and are gradually encroaching further and further into the cities themselves. It is part of the life of street children, beggars, the homeless and disenfranchised. It takes different forms in different places; sometimes it is the special problem of solvents; sometimes it is the links between poverty, prostitution, and trafficking; sometimes it is the creeping menace of a brief respite from intolerable conditions that leads to a way of life where the drug only ends up making the conditions even less tolerable than before. Whatever form it takes, it is more than any developing country can afford. In a number of countries, it has already reached the point where economic development simply cannot take place unless the drug problem is tackled.

There is much that can be done by governments, but there is even more that can be achieved by the people themselves. Church organizations are uniquely placed to activate the population to find creative alternatives to drug use. It is not enough to say " no " to drugs, as if what we were being offered was a cup of tea or a free subscription to Newsweek. It is when a community feels a sense of ownership in its own future that it can be expected to

have the dignity and foresight to take the kind of action which is required. It is the role of church organizations, working with others, to instill the conditions that make it possible for communities to have that sense of themselves.

Equally, it is the role of all those who have influence to make sure that we do not go on repeating the well-intentioned mistakes of the past. If the story of the last 30 years teaches us anything, it should be that our starting point for collaboration is not to force anybody to do anything, least of all to force them to compromise their own traditions and cultures. There is simply no point in insisting that producer countries continue pointless efforts at eradication with unrealistic and insufficient financial support. Certainly, law enforcement, crop substitution, and the break-up of criminal trafficking networks are essential. But they can never happen successfully until we recognize that the first step is to provide assistance where it is most urgently needed—in tackling their own tragic demand problems. Then, and only then, will it be obvious to us all that production and consumption, like supply and demand, are not opposing forces, but two sides of a single circle. In the case of drug abuse, it is a circle which we must break now.

Prof. HANS EMBLAD
Director of the Program of Substance Abuse at the World Health Organization, Switzerland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COLIN N. POWER

Young People and Drugs

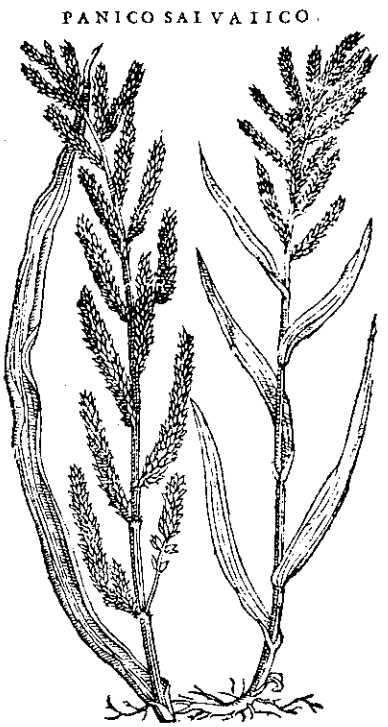
First of all, I should like to convey the warm greetings of the Director-General of UNESCO, Mr. Federico Mayor Zaragoza. He has asked me to convey his thanks to the Pontifical Council for organizing a conference on Drugs and Alcoholism which blends science and ethics to provide a deeper understanding of the phenomenon and to enable us to muster all the forces needed to fight against it.

Recourse to drugs and drug trafficking is a worldwide and multifaceted problem. All the means at our disposal must be brought into play simultaneously: family support, strict law enforcement, treatment, rehabilitation, education, and curtailment of demand, all featuring as components of comprehensive global and national programmes.

Secondly, I should stress that, by virtue of its educational mandate, UNESCO plays a particularly important role in the Global Programme of Action on drugs recommended by the United Nations. Through education, we can contribute to a lasting reduction in the demand for drugs and prevent their use before it becomes a habit.

Drug abuse is no longer to be explained in terms of psychological or biological dependence or an unfortunate combination of circumstances: it has become a societal phenomenon. Drug abuse is one of the indicators of the social and moral health of a society. In sick societies, the drug trade can flourish. Today it is a trade said to exceed the oil trade in size and power, and an evil whose growth shows little sign of slowing down.

While there is uncertainty about how to deal with a problem so vast and pervasive, there are many who agree with the Club of Rome that the best solution is to abolish demand through education and treatment. But given the absence of a socially responsible ethical code in some drug-related industries, we are currently witnessing a growing tendency towards a perverse glamourization of consumption of certain drugs, and it is against this trend that preventive education must fight.



In traditional societies drugs may have been used for rituals of social or religious integration; in modern societies, drug abuse was long restricted to specific social groups. But in the 1960s, and first of all in the United States, drug abuse took on a new significance: overwhelmingly it affected an age-group and social category that had previously remained relatively unaffected: young people from the well-to-do middle clases.

This phenomenon went hand in hand with a movement that challenged traditional social values. What we are faced with now is a completely different situation.

Drug abuse has become widespread and commonplace, and affects all ages and social groups. The drug-related problems that are increasing both in the South and in the North are no respecters of the distinction between legal and illegal drugs.

Their manufacture has been industrialized, trafficking is flourishing, and the appearance of low-priced synthetic drugs (PCP, Ecstacy, Ice...), which are infinitely more dangerous, makes marketing easier and encourages multiple drug addiction.

While drug addiction is not only a problem for young people, they

are particularly vulnerable and relatively easy for dealers to manipulate.

Moreover, people are starting to take drugs and to peddle at a younger age. In developing countries, we are witnessing the same problems of alcohol and cigarette addiction as in the North, and often on a larger scale.

In addition, there are the problems linked to glue-, solvent- and petrol-sniffing (especially among children on the fringes of society), and the increasingly frequent abuse of psychotropic drugs (barbiturates, tranquillizers, and amphetamines) which are available in street markets.

A socioepidemiological survey of drug use in Senegal and Ghana, carried out by UNESCO and covering more than 17,000 young people aged between 15 and 25, revealed that in Senegal, one in seven of those questioned had used an illegal substance.

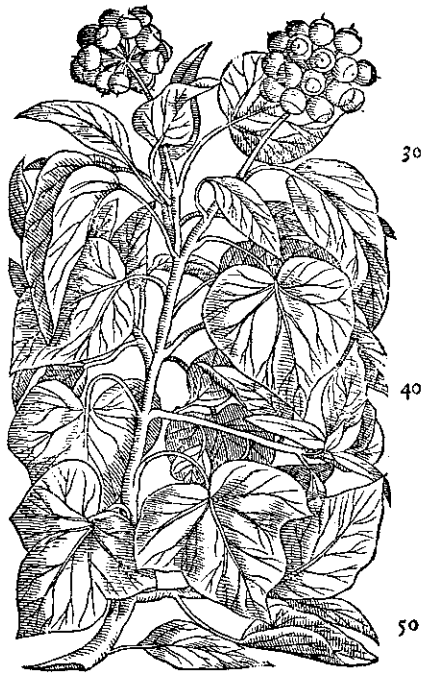
In Ghana, most of those surveyed had their first experience of drugs before the age of 13. The proportion of smokers rises from 0.7 per cent for the under-15 age-group to 20 per cent for the over-23s. Tranquillizers are as heavily used in Senegal as in Europe, for a comparable number of inhabitants.

Recourse to various drugs is a reaction to the helplessness of a generation that has been made especially vulnerable in developing countries by the sudden collapse of traditional values and the disappearance of the strong ties that once united the extended families, as a result of the mass exodus of young people towards an alluring but alien urban environment. A whole drug subculture is growing up in the Third World, as it already has elsewhere, with its own codes of behaviour, rules, and networks. This subculture offers young people with no social roots or supervision a social environment into which they can integrate and which holds out to them the enticing possibility of earning a lot of money and gaining power they could seldom achieve through the "normal" channels.

Preventive education is formative and not just informative. It seeks to inspire new life goals.

This challenge gives preventive education a much broader meaning than that of prevention in the strictly medical sense, because it is assimilated into the basic educational process and takes into account the social and cultural aspects of the problem.

HEDERA ARBOREA



Mr Mayor, Director-General of UNESCO, in his address at the inaugural meeting of the last General Conference a few weeks ago, stressed that: "UNESCO must lead reform of the content of education at all levels so as to ensure that the proper behaviour patterns for relationships with other individuals, other groups, and the ecological environment evolve and take firm root in every woman and in every man."

For it is no longer ideals or faith that inspire the behaviour of young people and fuel their ambitions, but a headlong race for material success. In work, study, sport, and social relationships, the example held up for them to follow is not to find satisfaction or fulfilment in service to humanity, but to come first at all costs, with the end justifying the means. This view of success must necessarily exclude most young people.

Excessive individualism plus the problems besetting the family mean that the conditions for social and world development both in western society and in developing countries are less than optimal.

In Africa, for instance, suicide among young people, practically unknown in the past, has started to occur. Drug-taking, although a dangerous illusion, seems to these young people to be a way round their problem, either to achieve success or to find some means of escape. Preventive education must open up new realms of being: ideological, cultural, spiritual realms, but also in sports, art, and technology.

The education of young people must be rooted in society's positive civic and religious values at the local level. Where drugs are concerned, preventive education should not be a specialized course. Preventive education against drug abuse has its place in the teaching of several subjects and at different levels.

The research on programmes suggests that the more successful programmes make young people

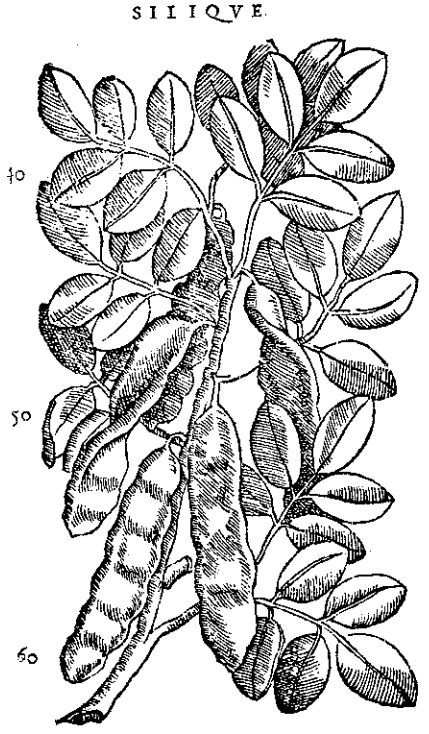
aware of the social factors influencing their decisions regarding drugs and provide them with the social and ethical experiences needed to resist pressures.

In this context, UNESCO provides technical and financial support for the training of both teachers and social workers. The organisation supports national and subregional projects, especially in developing countries, in order to identify the local features of drug-taking, work out specific strategies of preventive education, implement and evaluate projects in the field with the cooperation of local institutions. For preventive education does not concern only the school sector, but also the social groups outside the education system. UNESCO contributes to locally organised prevention initiatives: setting up leisure activities, job training, youth facilities..., with the aim of creating a synergy at the community level so as to offer young people an alternative to the illusion fostered by drugs. This means that preventive education must form part of an overall plan for national and regional education.

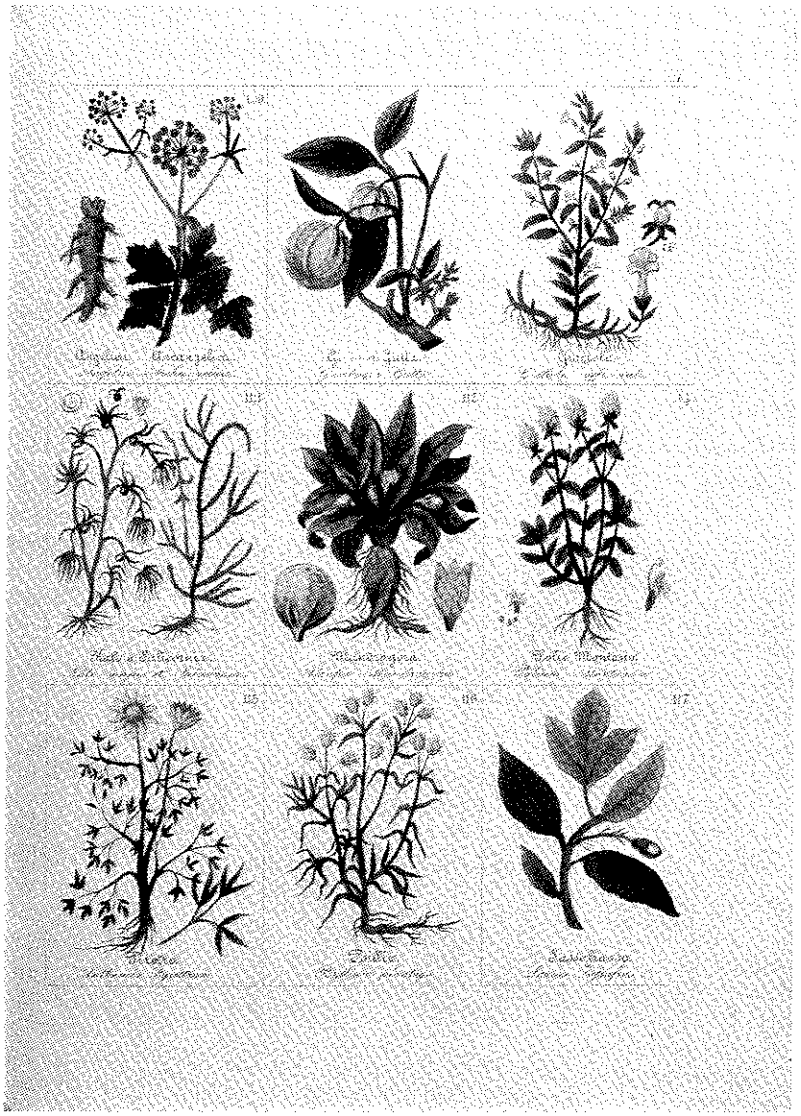
Ladies and Gentlemen, at the just concluded UNESCO General Conference, the Member States strongly recommended UNESCO's preventive education programme. I can assure you, as Assistant Director General for Education, we will, by all possible means, pursue the achievement of our educational mandate and join efforts with the other competent organizations. The rapid expansion of the phenomenon of drug addiction leaves us no choice. The future of our children is in our hands, and they should be the target of our preventive strategy, but also its source of inspiration. We shall have the youth that we deserve and we must act now.

Thank you.

COLIN N. POWER
Deputy Director for Education
UNESCO, Paris



Round Table



International Cooperation

AMBASSADORS TO THE HOLY SEE

International Cooperation in the Fight against Drug Traffic and Abuse *

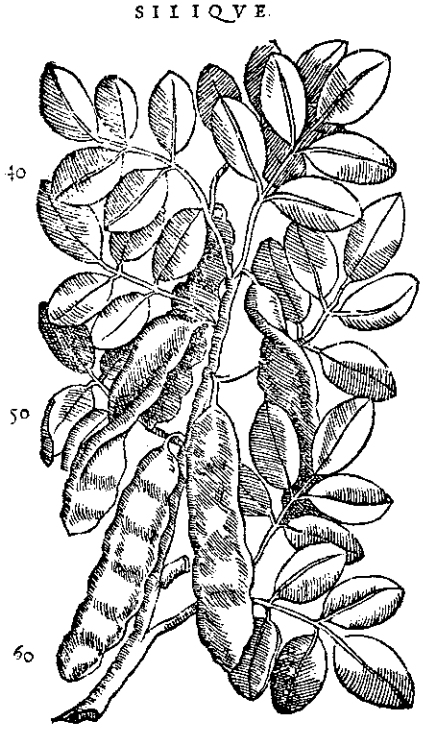
Despite the great efforts made by the international community to attack the real causes of the traffic in illegal substances and of drug-taking, the real dimensions of the problem have only just begun to be understood.

Unfortunately, no other subject involves so much confusion, so many different points of view, so much bewilderment, and so much hypocrisy. Taking a sober vision, and looking beyond oratorical denunciations, solemn agreements and 'chest beating', we should consider the practical realities of the millions of individuals who undergo and suffer the effects and consequences of the use of drugs and the trade in illegal drugs.

1. We must address ourselves to the real situations of the countries where the 'drug' problem gives rise to unprecedented phenomena and in the different stages of drug production causes violation of the most fundamental human rights: from the peasant who sells his crop, the net of middle men who supply the means by which to produce cocaine base, the carriers and leaf pounders, the seasonal workers who make up a small army of exploited people working for a derisory wage, to those who use a highly sophisticated transportation system to deliver the product to clandestine laboratories which then refine it.

At the centre of this reality is the abandoned peasant who is forced to cultivate this sole source of income in order to survive the economic crisis around him. He does this not because he is a criminal but because he is trying to defend the lives of himself and his family. In this process, however, he becomes ever more enslaved — subject as he is to the pressures and control of the powerful elements in this new socio-economic hierarchy.

Given that the drug trade needs manual labour which is cheap and not too exigent as to physical conditions, it absorbs all those individuals who are in a state of need and desperation. Once this absorption has taken place, the individual loses his own cultural, ethnic and social identity and takes on a new function in a new social structure.



All this process is controlled by families or by'cartels' which monopolise the most profitable part of the drug trade. Linked to this activity is that of above-board merchants and tradesmen, pharmaceutical outlets, distributors of chemical products, aeroplane taxis, shipping lines, estate agents, bankers, agricultural enterprises, import-export companies which, with or without their knowledge or consent, must furnish the material necessary for the whole process and satisfy the most varying and picturesque tastes of the 'new rich', thus constituting the beginning of the 'laundering' of illegal dirty money.

Finally, around this pitiless exploitation, there is a whole army of security guards: armed forces of considerable military capacity which give protection to this special world and at certain moments are used to settle conflicts of a legal, political, or' power' character relating to the interests of the owners of the drug trade. The number of presidential candidates, magistrates and policemen who have been assassinated in Colombia is a clear proof of this reality.

2. All this production, in order to be transported to its points of destination, has to go through a whole host of countries and pass through a large number of routes. Commercial airlines, private plans with long-distance capacity, yachts, motorbicycles, cars, boats, trains, peo-

* In the text references are made to certain authors: Poupard, Aguilo, Fromm, Suarez and others

ple and so forth, transport drugs in ways which are ever-changing, extremely picturesque, and characteristic of the underworld.

These transit countries also have to endure obvious difficulties. Certain emergent economic groupings, which have grown as a result of new and swift means by which to accumulate capital, have come to use their easy money to occupy increasingly large economic, social and political zones of society. They have introduced their money into commercial and financial sectors to such an extent that they threaten to become a decisive economic factor, with all the risks that such a state of affairs brings.

The general corruption resulting from all this illegal activity extends itself into traditional areas of state action and prevention and could in the future catapult people connected with the drug trade into the political scene.

Products created by the pharmaceutical companies, tranquillizers, psychopharmacies, and alcohol are generally exempt from social control and from the attention of the Press, but in some of our countries they cause very great damage. Such is the case with the important production of chemical substances without which coca or any similar plant could not give rise to that final product which damages society.

The world banking system and economic crime deserve especial mention. Illegal activities in this area may be considered as crimes against humanity. After the financial scandals of the BCCI, of Salomon Bross of Wall Street, of the Nomura Bank and Industrial Bank of Japan, and of the Deutsche Bank accused of insider trading, a system of free competition which can be regulated by uniform and safe rules of conduct will avoid the phenomena of cruel competition which are so favourable to the laundering of dirty money.

The amount of wealth that the drug trade creates and circulates comes from the attitude of total dedication to the trade on the part of those involved in it. These people feel possessed and this provokes in attitude of unchecked consumption. Even if money is normally the fruit of work, in the drug trade such is not the case: the dealer is not obliged to work or to make efforts to obtain money, on the contrary others work and die for him. Money changes loyalty into vice, vices into virtues, and ignorance into reason. This new form of possession of money gives him the right to have everything that he wants and to do everything he wishes (give bribes, corrupt, etc.). The conception of man is changed, and his relationship with the world is also altered.

ARMENIACO MINORE.



In this state of affairs the commercial, industrial and financial structures which flourish in the shade of a system which is able to hide illegal investments become one of the major obstacles to the finding of a solution.

Drug consumption continues to be marked by certain characteristics and the whole of the conference has spoken about this. Nonetheless it is worthwhile to pay attention to the efforts made by the international community and by the UN, and to bear in mind the policies on the Spanish, Italian, American, Dutch and German models, which are an example of these efforts but yet will need further reform and improvements in the future.

The criterion of impunibility, the impunibility of the underage drug seller, the concept of a minimum quantity, the concepts of family, therapeutic community, treatment, rehabilitation, etc etc, when added to the data about the criminality and violence which follow from drug taking, prostitution, AIDS, car accidents, etc, go to make up a social and psychological map of present-day society which requires a democracy which is sufficiently stimulated and active to take the right action.

Whoever sells drugs has an organisation which is large enough and profitable enough to risk the promotion and sale of his merchandise. This facts leads us to think about prevention as being first of all as a cultural project which is not only repressive, therapeutic or a question of care.

Despite this, to speak of culture is to speak about values. In daily life spontaneous attitudes are not the fruit of consecutive reflections: they have their roots in convictions which are acquired in the course of living out our existence. In a society such as ours culture is characterised

by the assertion that one passes from reason to creativity, from rationality to authenticity, from truth to sincerity, from principles to experience, from dogmatism to scepticism, from society to the individual.

Development cannot be adduced a mere matter of economic growth: for it to be a real development it must be integral and directed towards the promotion of each and every man.

AMBASSADORS TO THE HOLY SEE

H.E. Mr. Daniel Cabezas, *Ambassador of Bolivia to the Holy See*

H.E. Mr. Théodore Jean Arcand, *Ambassador of Canada to the Holy See*

H.E. Mr. Hernando Durán Dussan, *Ambassador of Columbia to the Holy See*

H.E. Mr. Fermín Rodríguez Paz, *Ambassador of Cuba to the Holy See*

H.E. Mr. Emanuele Scammacca del Murgo, *Ambassador of Cuba to the Holy See*

H.E. Mr. Francisco José Fiallos Navarro, *Ambassador of Nicaragua to the Holy See*

H.E. Mr. Dilshad Najmuddin, *Ambassador of Pakistan to the Holy See*

H.E. Mr. Hubert Wieland Alzamora *Ambassador of Peru to the Holy See*

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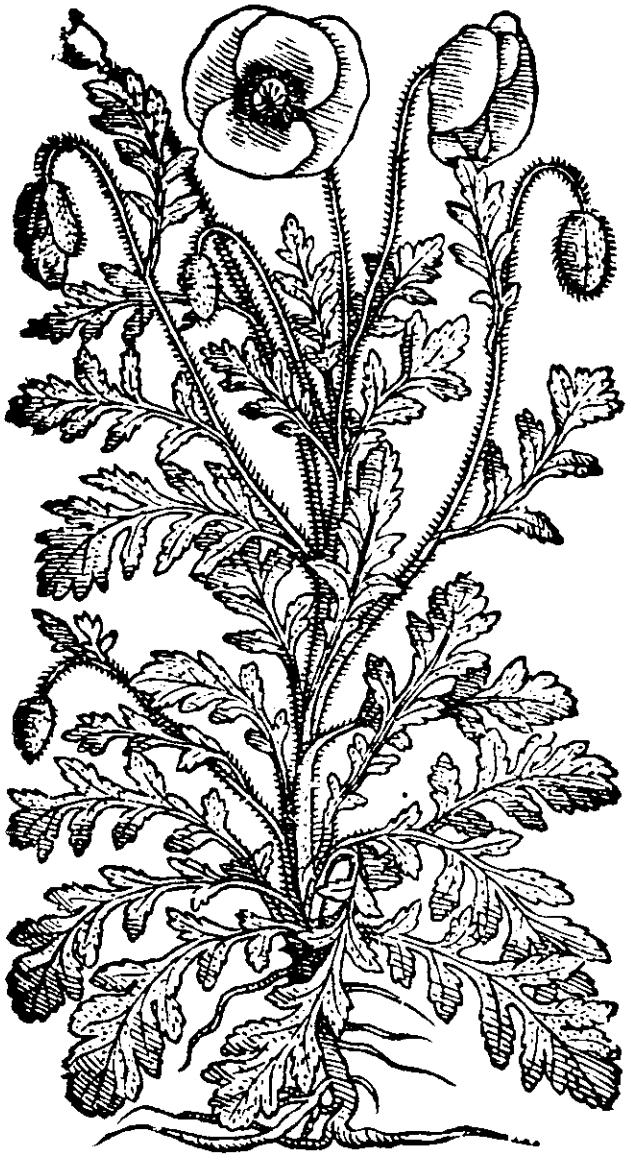
H.E. Mr. Jesús Ezquerra Calvo *Ambassadoru of Spain to the Holy See*

H.E. Mr. Thomas Patrick Melady *Ambassador of the United States to the Holy See*

H.E. Mr. Edilberto Moreno *Ambassador of Venezuela to the Holy See*

H.E. Mr. Selcuk Korkud *Ambassador of Turkey to the Holy See*

H.E. Mr. Jurij Yevgenievic Karlov *Ambassador of the USSR to the Holy See*



Round Table



Prevention

AIRES GAMEIRO

Prevention of Drugs and Alcohol Addiction

Alcohol and drug addiction as behavioral diseases pose a challenge to all categories and dimensions of prevention, treatment,and rehabilitation, demanding a holistic, systemic approach to the value of life.

Our Round Table will deal with the main dimensions of the phenomenon as regards prevention. I want to make some short remarks as a kind of introduction to our theme. As they are short, I shall refer to some sources where these issues are dealt with more extensively.

1. Prevention of addictive behavior is an integral part of the growth process and of education.[1]

2. In addition, the education process is the result of a stable relationship with parents and other relatives and the identification of significamt persons in families and societies. In our view, the most profound characteristics of such relationships are a clear, creative message from parents and educators and trust and human faith on the part of children or teenagers.[2] Both demand trustworthiness and faithfulness.

3. To prevent a child or a young boy or girl from self-damaging and self-destructive behavior which does not yet exist, there must be faith in the messages of parents or their substitutes,[3] who announce amd warn them that preventable damage will come as a consequence of such-and-such behavior and consumption and that a fulfilling life project or future will be put in jeopardy.

The person risking damage either believes in you or does not, either feels you are trustworthy or does not. He will either comply or fail to. If he does, we can ask why; if he does not, we must also ask why.

And in this way our issue of prevention starts multiplying its branches, and many disciplines appear to say why so many children and teenagers do not believe parents and educators who advise them about the insidious traps of alcohol and drugs. Consciously or unconsciously, such young people reject their elders' influence.

Do not forget that they do not see or feel damage yet, simply because it is not present. And it will not be present immediately or automatically, as in other situations.

It will take time. And when they perceive the damage to others, they do not believe the connection or are already trapped.

A little child may be warned by his mother that the red iron burns and hurts. If he does not believe and touches the iron, he will receive sufficient harm to keep him from repeating the action, unless he is somehow disturbed or limited in his mental capacities.

The harmful consequences of alcohol and drug consumption are not instantaneous, as with other aggressors. And we thus have to rely on some sort of faith and witnessing by other people.

Unfortunately, the sources of information are not always reliable, consistent, or coherent in their teachings. And there we have the value crisis in our societies, schools, and families.[4] They are quite often sources of contradictory messages, as if saying, " Drug yourselves/Do not drug yourselves "; or " Search for happiness in as much consumption as you can afford, in all kinds of elixirs of satisfaction and pleasure, " and, a minute later, " Pay attention, there is danger in such-and-such a substance. "

And, simultaneously, other sourcescome with the message: " It is not true; everything you can enjoy and that lifts you up is OK. Do not believe old-fashioned people. "

There we have the reference arrival groups attracting young people and adults, whose striving for low-cost sensation and happiness is supported. The first ones to be drawn in are those with a fragile biopsychology or an unfavorable environment. For them, experiencing everything becomes an obsession and compulsion. Why not experience every bit of pleasure? Why not strive to make a paradise of alienation right now? But pressure groups and threats may also be present in the systemic dynamics of fragile personalities and disturbed family relationships.

A Single Case History

In the city of Porto a teenage boy lives with his mother, who is separated from his drug-addict father and has remarried with a gambler-addict. Charles, the son, has a bad relationship with his foster father, who whips and threatens him very often.

Charles began to be harassed by other teenagers, who offered him hashish cigarettes and threatened him if he did not smoke them. They would go to his house to get him and, on finding him alone, go in and force him to accompany them. They would go around together as a

gang, entering supermarkets and picking up whatever they could snatch here and there. Once he was caught by the police.

On one occasion he refused to go with the gang and they threatened him with sodomy if he insisted; on another, his foster father stole his watch, a gift from Charles' grandfather, and lost it in gambling.

The only trustworthy people for Charles are his mother and his grandfather, but the latter, unfortunately, lives in France.

Charles is afraid and ashamed of what is happening to him and is not able to talk with either his mother or his grandfather. He is terrified by the idea that his foster father might find out if he asked his grandfather for protection. He would be whipped, as in the past. At the same time, he cannot talk to his mother or grandfather, because they love him very much and would suffer enormously on that account. The only person he is talking to is a priest. At a given moment he was advised to talk to them and ask for their help; he was told he would otherwise be in danger and risk his future, as he was already walking on the brink of a precipice, with his companions already below and pulling him down along with them.

He replied that he could not tell anyone for the aforementioned reasons and that for the time being he would prefer to walk on the edge of the cliff. He was trapped on all sides.

4. Families, schools, churches, health services, and the mass media are sources of education and values and facilitators of growth. But are they always? Unfortunately, are they not quite often providers of contradictory messages on growth and the risks of consumption? Even those who are coherent and trustworthy face a lot of competitors on the opposite side. To seek, for example, to condemn drug addiction and not alcohol dependency is simply a contradiction. But it is also a contradiction to condemn both and to be permissive with smoking, gambling addiction, overactivity, sexual indulgence, or the untrained pursuit of money.[5]

Ethical sciences have a fertile field for research here in evaluating social behavior and the endangered values of life.

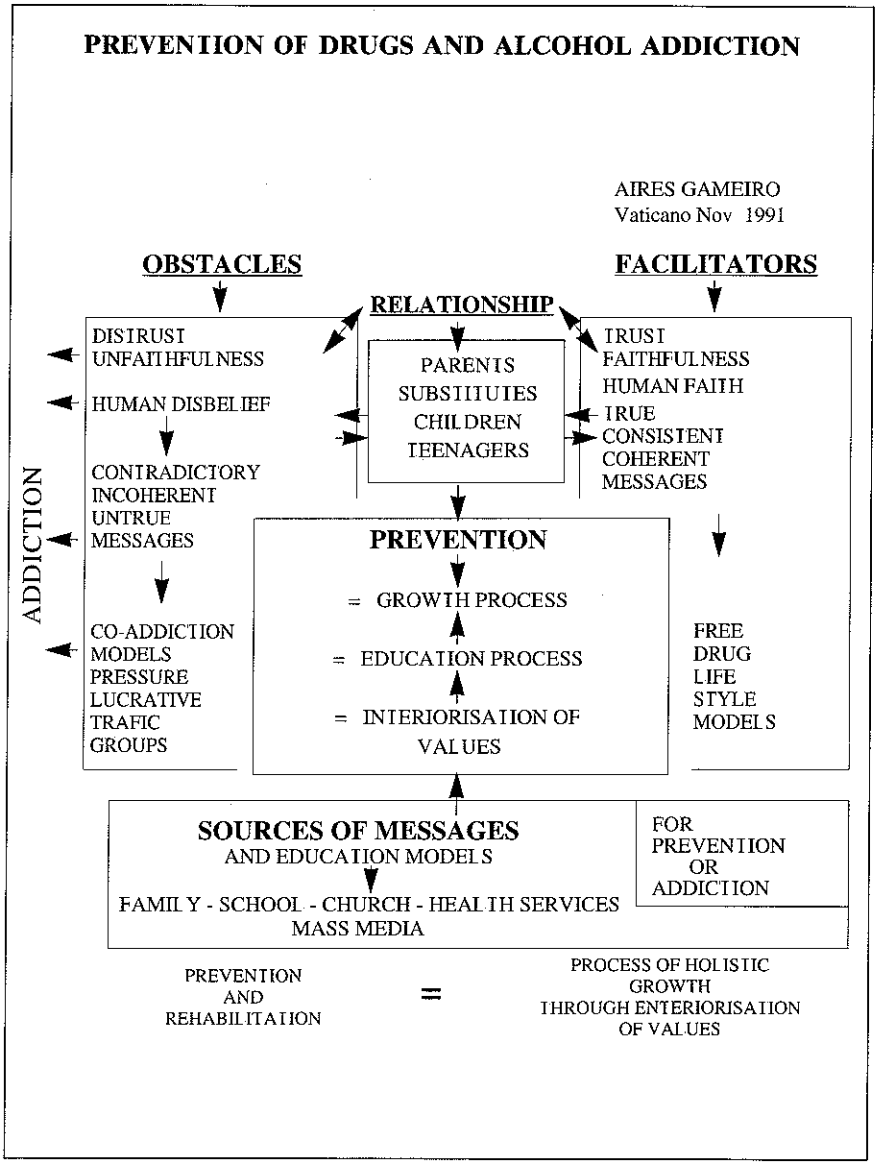
5. Research on systemic dynamics in the family has made it clear that one of the main obstacles to prevention is the phenomenon of co-ependency or co-ddiction among family members.[6]

Family therapy and counselling have described family strategies which are unconsciously activated to maintain one member in addiction either because the others are prone to some kind of addiction or because by their behavior they facilitate their children's or partners' addictions. And prevention is thus a process which, to be effective, must involve parents and sometimes the whole family.

6. Another observation of mine is that prevention, treatment, and rehabilitation have the same final goal: a drug free lifestyle. And this is also valid for alcohol dependent people as regards an alcohol free lifestyle.[7]

The means to achieve such a result may be different if we consider the detoxification period, but a process of holistic growth, with the interiorization of values and the support of facilitators, parents, self help groups, and communities, is always a must for either prevention or rehabilitation.

7. Dr. Sartorius of the World Health Organization's Central Office in Geneva, in a recent Symposium in Budapest on positive mental health,[8] expressed his desire that mental health might become a more highly accepted value, a sort of



fashion or lifestyle for the majority of the population.

For my part, I am always amazed that there are so many ecological groups, and even parties (the so called " green " movements), and no one endorses the whole ecological field of the environment of the human mind and body.

And I shall leave you with an even more amazing question: Why do political parties not include the prevention of drug addiction or alcohol dependency, or both, in their programs?

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Notes

[1] Cf. AIRES GAMEIRO, " *Aspectos psicossociais, evolutivos e espirituais da prevençao do 'increscimento' das dependencias,* " in Hospitalidade, 54/210 (Jan.-Mar. 1990), 45s 1. —" Conceitos de Dependencia Alargando critérios e dimensoes, " in Colóquio sobre Problemática da Droga em Portugal (Academia das Ciencias de Lisboa, 1987).

[2] In rehabilitation, on the other hand, the main characteristic is hope " hope against all hope, " as our Conference title suggests.

[3] Cf. AIRES GAMEIRO, " *Valores espirituais na prevençao e reabilitaçao de drogados. Processo de trans-identidade,* " in Colóquio sobre Problemática da Droga em Portugal (Academia das Ciencias de Lisboa, 1987).

[4] Cf. AIRES GAMEIRO, " *Pastoral das Famílias com dependentes,* " in Pessoas dependentes (Cáritas Portuguesa and Hospitalidade, 1988), 57.

[5] See note 3 and AIRES GAMEIRO, " *Famílias com jovens drogados. desafio para pais ...,* " in A. GAMEIRO et al., *Pessoas dependentes* (Caritas Portuguesa and Hospitalidade, 1988), 36-46.

[6] Cf MARGARIDA CORDO, " *Família e prevençao,* " in Hospitalidade, 54/210 (Jan.-Mar 1990), 40-44, and AIRES GAMEIRO, " *Alcooldependentes e co-dependentes do álcool Marginalizados da incomunicaçao familiar e social,* " in V Jornadas Diocesanas da Pastoral da Saúde do Patriarcado de Lisboa, June 14-16, 1991.

[7] Cf. AIRES GAMEIRO, " Models of Alcoholism Treatment, " in AIRES GAMEIRO, *Alcool, alcoolismo e drogodependencia* (Hospitalidade, 1983), 84-98.

[8] Regional Symposium of the World Psychiatric Association, Budapest, August 23-24, 1991



RAFAEL PICH

Role of the Family

Origin, aims, and survey of communication

The International Family Foundation (IDF) was founded in 1978 by more than five hundred parents. It coordinates activities for families in the whole world.

The main activities organized by families, who are mostly grouped in Centers, of Family Orientation, which collaborate with the Foundation, have consisted of basic Family Orientation Courses, seminars, symposia, local, national and international congresses, etc. to help families to improve their educational capabilites and to put them into practice. The aim is to spread knowledge and to increase efficient action; that is to say, to better the quality of family life. Hundreds of families have cooperated during the last twenty years on the five continents. Urban, suburban and rural families; professionals, intellectuals, workers, farmers....of a very different geographic and cultural background: from New York (USA) to Enugu (Nigeria); from Abidjan (Ivory Coast) to Toronto (Canada); from Sydney (Australia) to São Paolo (Brazil); from Caracas (Venezuela) to Hong Kong (China); from Dublin (Eire) to Manila (Philippines); from Stockholm (Sweden) to Bari (Italy).

As the Secretary General of the Foundation, I have been very lucky to collaborate with very different families for several days, in small groups; and as the father of 16 children, I have been able to exchange many interesting experiences. This is the point: these experiences are not just theories, studies, or cold reasoning. They are life that has been lived by hundreds of families. Tested and proven realities. They are practical orientation extracted from family life experience, and they have proven to be very useful in the field of prevention of alcoholism, drug addiction, and other addictions. They make part of the numerous positive results obtained by families who have grown and matured by the activities of Family Orientation.

Rebel families from very different cities have come together to study the main cause of the progressive deterioration of family life: what kind of things have been done or not done: what has been given up or what are people doing now. What can we do? What can —and must— the family do? We have to reorganize family life, according to the diagnosis and the preventive therapy which has been tested for years. We cannot use our children as guinea pigs or test new models, ending up after some years with a destroyed family.

There must be, by means of preventive action, positive impact on the surroundings of our families: school, leisure-time, and family life. We must not only avoid a negative, noxious, and asphyxiating environment, but strengthen also the positive, stimulating surroundings which help to mature and improve the family.

2. Attacks on the family

In the cities visited during the last years, we have witnessed an increasing attack on the family, varying from district to district. The attack finds expression not only in the serious problems such as divorce and abortion, but also in other phenomena. Maybe less evident, but with terrible long-term effects. Very subtle, hidden, and progressive attacks which are even more dangerous, because of the frequent impossibility for parents to perceive them, and the difficulty of reactions and defence.

A concept of society is propagated which has no place for the traditional family —already considered out of fashion, dead, and typical of a regressive mentality. Instead, there is the modern, progressive, authentic, civilized family: in reality, a sad caricature of the family, because there is almost no place for children and no loyalty and commitment between man and woman.

The attack on the traditional family and its values— reinventing the new family, which failure has been proven —has led to desperate situations, where a single woman or couples of two men or two women try to replace marriage. These thinkers do forget that the deviation and returns to the origin of the natural family are well known. They only re-invent or rediscover old and overcome faults.

Another category of attacks— more practical and efficient —is directed against family life. They modify traditions and social customs, eliminating family life. By that way, the family is disintegrated and dissolved into nothingness.

Education is depicted as a difficult, tiring, and complicated task which should be better done by experts: parents send their children to specialists, in order to have more time for their personal hobbies. They want the psychologist to prescribe some "educational drugs" to solve in a few days problems

which have been there for years—and which they have never wanted to tackle. In the Family Congress convened in Brussels in 1977 we said: "Psychologist, psychiatrist, psychoanalyst, psy... psy... psy... no! Mom and Dad, yes!"

3. Attacks on family life

A seemingly innocuous example—however, with sad long-term effects—is that of segregation.

It starts with babies, who are separated from their families already in their first years of life. There are campaigns like "Free Day Care," organized by Dukakis in the USA, certainly with important hygienic and economic motivations. The result is that the child is separated for 10, 12, or even 14 hours from his mother or from the care of his brothers and sisters, grandparents, aunts, or neighbours. The family environment is replaced by the efficiency and hygiene of the free infant parking, provided by qualified nurses, who are, however, civil servants.

Due to early school attendance, separation of the family continues in early childhood. Years ago, children were five or six years old when they started to go to school; nowadays, this process sets in when they are three or even before.

Later, segregation continues in the second childhood, from seven to twelve years of age. They are the "key children," wearing the key around their neck so that it can't be lost. Since the school timetable is more and more reduced, they come back home earlier, finding written instructions in the kitchen "take the dish out of the fridge and put it for 3 minutes in the microwave." They go out, not coming home before dinner time. In many cities, more and more children spend their time in coffee-houses, listening to music. Once, young people were 18 years old when they started to go out; then 16, 14, 12....

The adolescents are replacing family life with their "gang" (remember *West Side Story*) The young people leave their natural families, looking for happiness in an artificial family, which offers apparent freedom; transforming them into slaves of their instincts.

University students are separating from their families, too. The number of university students has grown during the last years. Many young people leave home, share a flat with others, choosing universities far away from home.

More and more mothers are going to work. To stay at home is something anachronistic, typical of the ignorant or incapable, a kind of tax-evasion, unfair to the family's budget, against the development of one's family—these are common expressions in many parts of the world. The nonsegregationist mother, who loves her family, stays at home, doing the housework, sacrificing even an additional income, is unpopular in our world.

Fathers are spending more and more time outside their home, too. Not only for professional reasons—more hours of work, moonlighting—but also for other social or personal activities: hobbies, sports, meetings with friends, dinners with other couples. That means less time for their family.

There is no doubt that married couples have increasing activities outside their home: meetings, social activities, or hobbies which leave no place for children.

And the grandparents, into the institution. This expression is maybe too cruel; we should rather speak of a residence for the elderly. In Enugu (Nigeria) people were shocked when they heard that in Europe the "Family's roots"—the grandparents—are torn out and transferred to distant, cold places. They could hardly believe it. Who is the savage here and who is civilized?

Segregation of the family and of one's home, too. An increasing number of children, adolescents, young people, and parents are not able to stay at home—they do not know family life. Children who don't know what to do at home, parents who don't know what to talk about with their children, brothers and sisters who don't share hobbies or interests, having no common topics for conversation.

We can say that family communication has become nonexistent. How many hours is a family together, does a family live together? The hours of sleep do not count. Nor do the hours spent watching television

In Hannover, I met a family with three children: in four months, the five members of the family had been together for dinner only in three evenings!

4. Traditional customs of forgotten families

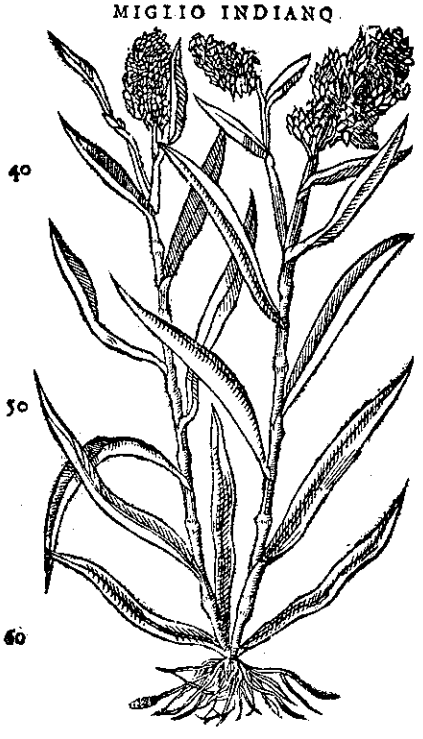
The family —with all its members— lived in a tradition of common goals, with identification varying according to age and character. Common interest, family projects, shared work— all this led automatically to family conversation, to common actions and work. Vital bonds were created, improving family communication, motivation, the daily living together. Besides the bonds of blood, family life was strengthened by the concepts we mentioned above. Let's have a close look at them:

The agricultural family

From the age of two or three years on, the child accompanied his mother, facing the daily tasks. Picking up herbs for the rabbit, feeding the chicken, fetching potatoes from the vegetable garden, caring for the goat..., the child worked —played— with his mother all day long. Nobody had to teach him working—he had been brought up doing it. Today there are young people who "are not able" to work; not even to make their bed or to set the table because they "have to study"— and they are already 23 Valencia).

The farmer's child grows, takes the afternoon snack to his father, who is working in the wine garden —and the kid stays there, sharing the work with his daddy. The conversations concern common topics and interest: "It is going to rain, and the grape harvesting will increase. The sow is going to have piglets next week. The wheat harvesting will be excellent; we have to widen the hay-loft and the granary." There are common family projects and goals.

These bonds of hamony increase naturally, by a natural life style, almost without being noticed. Happiness and sorrow are shared, because they are lived by the family. Problems are shared and happiness



is multiplied, and all this unites the family.

There was— and there is— no segregation in such families. The presence of the father, the mother, and others is permanent. The harmony of living together is not disturbed.

The artisan family

The carpenter works in his shop, in his home. "Go and get me the saw, my son. Take the spanner. Look at this table, how it is taking shape." "Father, may I make a small seat for my little sister?" The mother may collaborate, painting wood. There are common goals and interests, shared work, vital bonds. Communication and dialogues are good because of this natural family life, which is rich in details that increase those ties. The same can be said for blacksmiths, tailors, and other artisan families, who, with the agricultural family, enjoy the plentiful advantages of the small family concern. The small family business is emerging after years of discredit: a wonderful reality of work and family, with very efficient results. It would deserve a separate study.

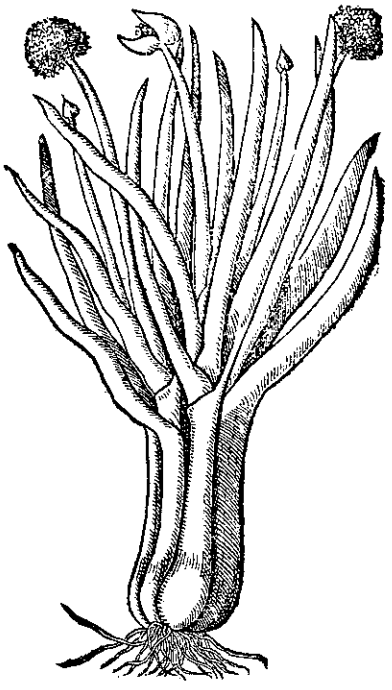
The family of the professional

A lawyer with his office at home. Of course, his children have to grow before they can begin to help him a little. The shared work starts later, but then it is integrated into the daily conversations. The mother collaborates with typewriting the files. The family is living together with the father's profession, too. Physicians, architects, and other professionals might vary in this scheme, according to their professional and family organization.

The family of employees, workers, and managers

The father is definitively less at home. The living together decreases and common interests do almost disappear. There is no possibility of shared work. There are almost no common projects, and family bonds are not strengthened at all.

CIPOLLA SETTILE



If we look back—the development of the last 20-50 years varies from country to country—the agricultural and artisan families had a better family life than workers or employees. Life in the cities, the professional activities of today, and the structures of family life do not favour these important—and forgotten—concepts. In most families, family life is diminishing in quality as well as quantity.

What can be done? What are families in different regions of the world successfully doing? Can we give our family a breatheable environment, free from physical, chemical, psychic, and moral pollution? There are three typical reactions:

1. Those who, like a family of Caracas, think: "It cannot be that bad; take it easy; don't worry." And the following summer, the 17-year-old daughter was a drug-addict. Families who have their heads in the clouds and do not recognize that the attacks are coming from all parts, with tremendous energy.

2. Other families give up. Acquaintances in Stockholm said: There is nothing which can be done. The world is sad and injust; we lost our daughter of 16, and we will soon lose our 13-year-old son. Families who have given up, beaten by the high microbic density of our streets. They don't fight anymore.

3. Rebel families. They are still a minority in the cities we have visited. They are young and they are rebelling against any kind of attack on the family. They are willing to defend their children fighting tooth and nail—and using their brains. They are fed up, and therefore they have developed a great variety of solutions.

5. Solutions

Concerning solutions, we can make four preliminary statements:

1. One family alone is going to fail. There is the need to work in groups, in groups of families. Rediscovery of the family clan, of the extended family. Small oases which are growing, conserving their atmosphere.

2. A good family of 50 years ago is going to fail, too. It is not enough to be a good family today; there is a demand for superfamilies, who, together with other families, are able to survive in this difficult world. Families who are able to help other families, or relatives, friends or neighbours.

3. Active work by means of the efficient organization of three basic surroundings:
A. School life
B. Leisure-time
C. Family and home life
Efficiency is obtained if we concentrate on two aspects: elimination of the negative elements of our environments and development of the positive ones. Without waiting for the government to find solutions.

4. Rediscovery of family activities. Activities, which keep the family close: positive, happy, and pleasant activities. They may consist in family sports or cultural trips. If the parents do not discover all this, who else can show this world to the children?

I. The microfamily—a couple with one or two children—is a weak organism in the face of the attacks from outside. The extended family is strong. The family clan supports and defends its members in many aspects of family life. A couple of Manila, he Philippine and she American: "When we came to Manila, newlyweds, my husband introduced some of his cousins to me. After five years, I know more than one hundred—and the number is still growing. We are never alone.

The children of a microfamily who want to stick to their values in a very contrary environment will have the sensation of being abnormal, facing the usual confusion between normality and frequency. The frequent is considered normal—though it could be abnormal. In an extended family, these children would feel normal. And especially in adolescence it is a great help to grow up in an atmosphere that improves one's own security.

There are wonderful solutions for families who cannot have more children. Collaborating with neighbor families or families of friends, an extended family can emerge: though not bound by ties of blood,

this family can be real, vital. A friend of Honk Kong says: "The children of my neighbors and friends whom I see every day are in a certain way more nephews for me than the real one, who lives in São Paulo and whom I have not seen for ten years."

These relationships, more than bonds of blood, do create a true oasis of living together between neighbours and friends of stairways, districts, and villages. "I had eleven mothers. When I was a boy, we were a group of eleven friends in the district of Queens. When we got to the East, there was always a mother who would watch us out of the window; when we got to the West, another mother would invite us to have a snack. We were a happy and well controlled gang."

II. Fifty years ago a good family in most villages—and some cities—was in reality a normal family, with fixed values and civic virtues, that raised the children in a nonhostile environment. Today, this is not enough. There has been a tremendous increase in microbic density in the streets of many villages, too. The atmosphere of schools and leisure-time places has also worsened.

For prevention and preparation of our children it is useful but not sufficient to escape from the infected areas. We must prepare them—and prepare ourselves—by various means. There are areas where a permanent state of emergency might be required. The variety of means for prevention is given by the formation of human virtues, which help us to grow up—like vitamins—and which are developping from childhood. Other means are dialogues, deep communication in the family, confidence and mutual understanding, which are the best vaccine for prevention and defense against difficult situations.

III *Work and family action in three positive environments*

A. School life

In Alastair McBeth's book *The Child Between*—a report for the education boards of the Common Market—it is shown by an analysis of numerous educational institutions that most of the schools in Europe, the United States, and Canada are based on the following scheme: the teachers move in one direction, the parents in the other, and in between the child, the weakest element, is overcome. Comprehending that parents are the first educators, a group of rebel parents has intervened in the educational process of their children, creating collaboration with the schools. There have been very different situations: like that of the school in Canada where the headmaster is elected by voting. In the last electoral campaign, three good parents—rebels—won the elections as trustees. They corrected certain strange tendencies and deviations that had taken root. There are many examples of free family schools, which have been created by the collaboration and participation of parents, teachers, and pupils.

B. Leisure-time

Divided into three different areas:

1. From Monday to Friday afternoon, after school. The tendency to reduce the school timetable is leading to a dispersion of our children to bars, coffee-shops, and other places of idleness, and the kids there are younger and younger. A father from Barcelona asked: "If the parents don't organize children's leisure-time, someone else will do so."

2. Saturdays and Sundays. Weekends. The solutions for these days vary from the organization of family clubs, where time is dedicated to studies, music, model aircraft construction, cooking, etc., to activities for the extended family (with neighbours, friends): outings with complementary aims (geology, forest culture, map-making); choirs of children and adults, family sports (soccer, basketball, baseball), cultural trips. There are so many possibilities, according to the tastes and hobbies of the different countries and cultures, and for the family's creativity.

3. Christmas, Easter, summer holidays. A Washington teacher said: "In June we 'deliver' normal kids, and in September, they come back as jungle lions." It is a pity that holidays often have a negative

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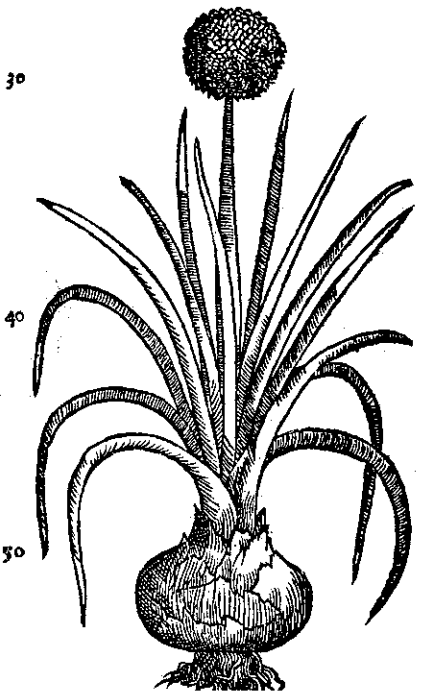


impact on children instead of being a period of intense and more lasting living-together. A solution could be work (paid or not). Parents have found out that work matures, even from childhood on. Social or voluntary activity which can be done with more or less intensity is also a good possibility (catechesis, camps, farm help, collaboration in the reconstruction and conservation of monuments and social buildings...). Other activities could belong strictly to the family (repairing and modernizing the house or furniture, painting of the house by the whole family, etc).

Family and Home life

We must also rediscover true family life. It is necessary to learn its peculiarities, behaviour, systems—to learn, in a word, to live an intensive, true, happy, and normal family life.

The concepts of authority, obedience, order, generosity, and love must be deepened, by the lived experiences and testimonies of those families that have a perfect family life. That is the reason why these groups of parents have started to organize basic Courses for Family Orientation. Intensive Courses with an active, participating methodology, in groups of 15 or 20 couples, guided by specialists by means of tested systems.

In the courses, the groups treat negative and positive questions, thinking and reflecting on the organization of their own family life, the possibilities for amelioration, and the experiences of the others participating in the course.

In that way, they learn to better their family life. They arrange their family timetables, making sure that there is always some time for the family to stay together. They practice and get used to dialogue on education with their partner. There are families working for the application of the advantages of the natural, agricultural, and artisan family to our families. The environment of our families is often poor and false; sometimes, it seems more a hotel than a home.

The great number of activities of Family Orientation helps to go ahead and to keep the route once the course has come to an end.

6. Conclusions

1. The best prevention is a normal, profoundly lived family life with all its aspects, and with happiness! Family life is a wonderful, thrilling, and happy activity, which we won't let be destroyed. Any effort for prevention will not be enough. How much does curing cost, and how much prevention? And how easier and safer is prevention!

2. Parents have to rediscover traditional family life with all its details. An antidote tested by families of the whole world and of very different cultures.

3. The time of real family life must be increased and dedicated to shared activities, fostering work and common interests and goals.

4. There is the urgent need to overcome ignorance: families have to discover what a true family life is like— without deformed, incomplete, or false visions.

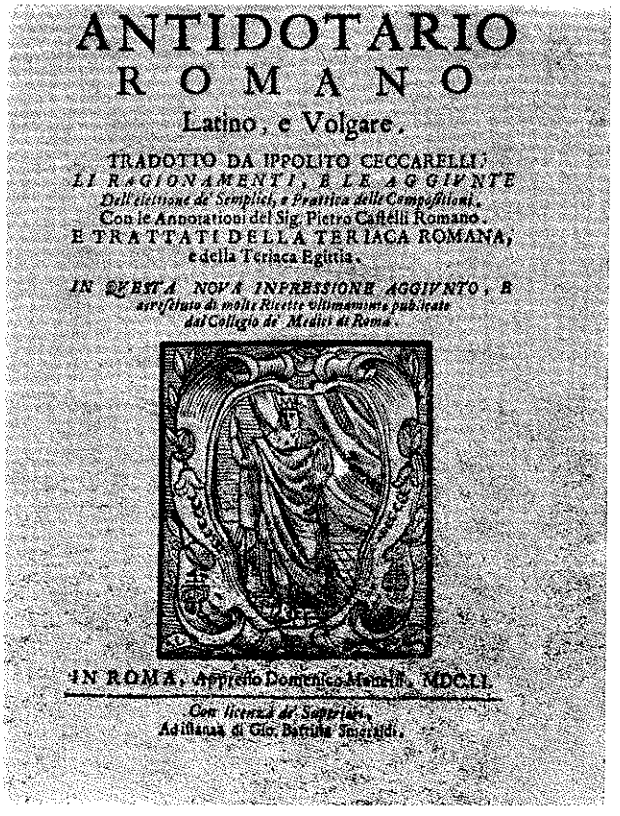
5. Every family has the right solutions for its problems. We cannot solve them, but we can move the family, help them to understand better and find on their own causes for the conflicts and the therapy.

It is wonderful that these rebel families have no problems of drug addiction or alcoholism, neither the father, nor the mother or the children. Moreover, their happiness helps them to aids relatives, neighbours and friends to proceed on this effective and successful path. If our families did their duty of living an intense family life as mentioned above, there would be no need for us to participate in this International Conference.

The best prevention is a true family life: the most efficient, cheap, natural prevention.

Let us work, therefore, helping all the families who need us. Family, be what you are!

Dr RAFAEL PICH
General Secretary of The International Family Foundation, IDF, Spain


ANTIDOTARIO
ROMANO
Latino, e Volgare.
TRADOTTO DA IPPOLITO CECCARELLI;
LI RAGIONAMENTI, E LE AGGIVNTE
Dell'elettione de' Semplici, e Prattica delle Compositioni.
Con le Annotationi del Sig. Pietro Castelli Romano.
E TRATTATI DELLA TERIACA ROMANA,
e della Teriaca Egittia.
IN QVESTA NOVA IMPRESSIONE AGGIVNTO, E
accresciuto di molte Ricette vltimamente publicate
dal Collegio de' Medici di Roma.
IN ROMA, Appresso Domenico Manelli. MDCLI.
Con licenza de' Superiori,
Ad istanza di Gio. Battista Smeraldi.

JORGE ALBERTO SERRANO

Role of the School

1. Introduction

Drug abuse is one of the gravest threats weighing upon the future of man, while we currently observe consumption at an increasingly early age of so-called " psychotropic " substances (Juillard, 1979: Johnston Institute " Bush Study, " 1985; Du Pont, 1987). Some American statistics on young people from twelve to seventeen years of age between 1962 and 1982 show twenty-seven times more smoking of marihuana and eighteen times more consumption of hard drugs. This spread goes hand in hand with other indications of malaise among teenagers: nutritional disturbances, suicide, violence, delinquency. To recognize this fact, above and beyond the silence surrounding it, is to admit the need to take effective measures to limit such propagation.

This paper is concerned with analyzing the preventive role of the school in drug consumption. It is not possible in a brief exposition to consider the great variety of educational and familial situations which determine prevention policies in different sociocultural contexts. It is equally difficult, in this field, to separate the facts, quite often partial, from our own desires, even the best-intentioned ones. Consequently, this exposition will limit itself to posing three major questions: 1) the meaning of prevention; 2) the school as a place of prevention; 3) its social dimension.

2. The Meaning of Prevention

What do we mean by " prevention "? " Does prevention have a meaning? " Taken in its broad acceptation, the term " prevention " signifies 'the action of preceding' (Petit Robert 1, 1987), 'to place oneself in front of something'. And this is how we understand it in our everyday language: " Prevention is better than cure "; or " Prevention roots out the malady. "

On a psychological level, prevention appears as "intervention composed of a set of means whose purpose is to reduce the effects of a dangerous form of behavior or situation. This intervention is twofold: it investigates and identifies the factors associated with the origin of such behavior and situations; and it applies protective measures aimed at preventing their appearance. It influences the environment (equipment and surroundings) and/or the human factor (selection, formation, or learning) " (Dictionnaire des Sciences Humaines).

In the field of medicine, prevention implies all action aimed at preceding certain risks; it comprehends the set of measures involved in the origin of a problem (a situation in regard to which a change may be provoked) so as to avoid its appearance. Beyond this first acceptation, the medical model enables us to go further in our reflection and distinguish three levels of prevention, according to the moment in which one intervenes (Caplan, 1966).

Primary prevention puts into effect everything in order to avoid the appearance of illness, acting when the problem still does not exist. For its part, secondary prevention seeks to reduce the prevalence of the malady, i.e., diminish the seriousness and duration of the illness through early diagnosis. Secondary prevention deals with the problem already present. Tertiary prevention aims to improve the state of health or stabilize illness so as to avoid relapses and thus enable the sick person to use his potential to the utmost. Tertiary prevention is concerned with reintegrating or rehabilitating the subject within the community, according to his situation.

These different levels of intervention make prevention as a whole a dynamic process involving permanent interaction among the different participants, experts, and the community in question. Its common objective is to work out projects or programs dealing with information, training, intervention, and investigation concerning a specific problem.

The identification of a community problem like that of the illicit consumption of drugs involves immediate agreement between the interests of political or technical decision-makers and those of the community " benefited " by action around three core points.

1. A correct definition of the problem which takes into account the cultural implications, which, in the case of drugs, are important.

2. Starting from the real needs of the population involved in the prevention program. In effect, experience shows that the projects developed apart from the population's real needs and expectations are doomed to failure.

3. The mobilization and participation of the people affected. This participation is frequently obtained at the price of multiple contacts and correct information or sensitizing.

In other words, the dynamic

process of prevention involves the possibility for mutual recourse and interdependence among all action strategies, which can give rise to conditions capable of reducing to the minimum the incidence and prevalence of problems significantly impacting on society, such as drug consumption.

3. The School: A Place of Prevention

The school, a leading locus for the socialization of the child and a vital link in the social network, can play a key role in all primary prevention policy relating to drug consumption. As a dynamic process, prevention involves permanent interaction among the different actors in the school situation, children, teachers, and parents. But we must not forget that those different actors are subjected to constrictions by the socioeconomic context as regards their " availability " and their degree of intervention.

The ideal for every prevention program is to foster the meeting of interests among the components of the educational community around " the cause of the children. " Agreement on the model proposed for association, on the models for personal identification, and on the existential integration of education. In the area of prevention there are no ready-made answers. Only with the support of the community, in a broad spirit of cooperation and coordination, can we come to formulate a real, consistent prevention policy.

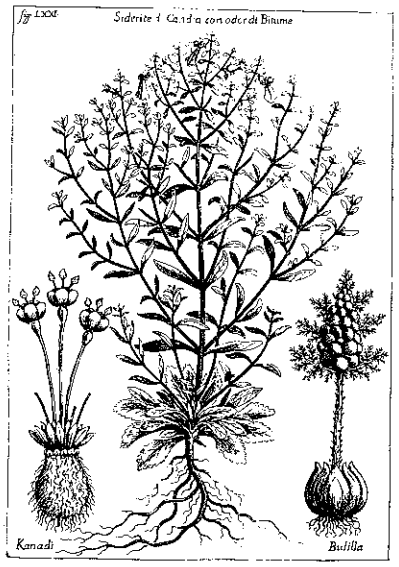
One of the primordial conditions to obtain that prevention consists of ensuring that the largest possible number of teachers possess, in addition to knowledge of the scientific subject they must teach, an attitude of listening and genuine attention to the student's concrete life. It would be oversimplified to deal with the drug question without recalling the child's " life problems. " In order for prevention to be integral, aiming at the person as a whole, i.e., at his body, his spirit, and his relation to others, all oversimplification must be superseded. Moreover, in order for it to be effective, it will have to begin quite early in life and continue through adolescence and even beyond, into adulthood.

The educational community, still shaken by contradictory ideological currents and limited by economic factors, is one of the places in which integral formation can be proposed to the child. It can thus contribute to to promoting health, in the sense defined by WHO: the primary objective of prevention, in the area of drugs or any other, is to promote and develop a harmonious state of physical, mental, and social well-being of the person in question.

We need to go from a rather negative conception, which tends to diminish the risks of habituation—by preventing the child's or teenager's contact with drugs by suppressing production and commercialization—to a positive conception of promoting health, which is not unrelated to a certain conception of the world, of the person, and a hierarchy of values.

As psychologists concerned with the child's situation and as representatives of BICE, we are sensitive to the promotion of the whole child in all children.

The psychologist's intervention in the social field is animated by his capacity for listening and understanding the person. The anthropological nature of his practice, in the broad sense of the term, situates him outside all repressive attitudes. For this reason he conceives of primary prevention in the child and teenager as a whole.



Drug abuse is a situation regarding which a change must be proposed and provoked. To provoke a change involves a political will and option concerning the means to be employed to that end. Such political options we are forced to observe are sometimes more spectacular than efficient, more oriented towards attracting attention or justifying the existence of bureaucratic organisms and institutions. These political options are often divorced from the population's real needs, even more so in the case of the underprivileged, who do not benefit from drops in drug traffic or the miserable subsidies granted to institutions " fighting " against drugs. This is one of the paradoxes in current policy to combat substance abuse.

Some problems at present, especially the abuse of alcohol, tobacco, tranquilizers, and sleeping pills and the resulting states of habituation, are more concretely among the concerns of a great many teachers and officials who wish to help the teenagers entrusted to them more effectively in becoming well-formed adults and responsible consumers.

However, experience proves that school, administrative, and political authorities often do not support and encourage prevention beyond the point where it starts to depart from the existing state of affairs. Now, as Servais (1988) affirms, "Authentic prevention will sooner or later cast doubt on certain frameworks existing. But if we do not want cut-rate prevention, if we want to remain credible in the eyes of the young, we shall need that willingness which consists of letting ourselves be questioned as persons, families, or institutions. "

The same author stresses the importance of structuring every prevention program around education of the teenager, enabling him to develop his knowledge, of course, but also awakening his curiosity and concerns. It is naturally a matter of

making the teenager a committed actor in a process stimulating him to take a personal position and affirm his personality.

The school is not only a place for transmitting knowledge, but for education, the maturation of the person. Its design is to foster the young person's autonomy, preserving the values of solidarity and commitment.

A prevention program inspired by these values will help the child and teenager to face up to the difficulties of existence (anxiety, boredom, aggressiveness, conflicts) by means of a capacity for dialogue and listening, through the healthy use of one's body and the fruitful organization of free time.

The specific prevention program for drug consumption should be conceived on a long-range basis, including action in the family environment and taking into account the set of psychotropic substances. Short-term action helps the student to reflect on his personal opinions concerning drugs, reinforce healthy views, and modify unhealthy ones. The teenager must acquire aptitudes enabling him to affirm himself in his environment and conserve self-mastery. In such a delicate matter, the active, reliable cooperation of parents is indispensable.

The long-term objective of real prevention should be to help the young person to take his life into his own hands and teach him to live with his problems without turning to drugs.

4. The Social Dimension of Prevention

The illicit consumption of drugs is the paradigm of a biopsychosocial situation. It is always comparable, in both young people and adults, to the tip of an iceberg: a sign revealing a deeper malaise in the subject. The young turn to drugs for multiple "reasons": a quick, easy way to feel good, be accepted by the group, modify negative sentiments, reduce tension, stress, or disturbing emotions, relieve depression, and "forget" life's problems (Morrison and Smith, 1987; Bailey, 1989). It is an evanescent, fleeting solution which deceives the subject, the teenager, in his thirst for a trouble-free existence.

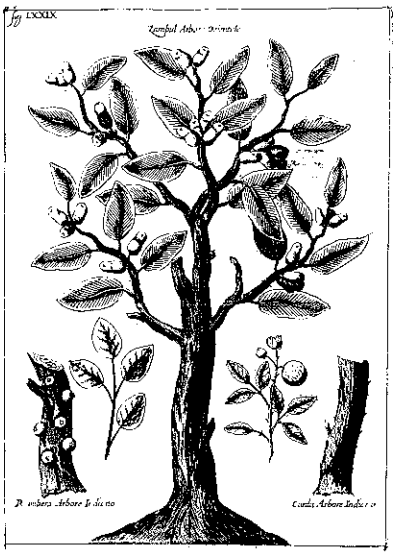
The identification of risk factors is a basic task for all addiction prevention policy. Comprehensive Drug Abuse Rehabilitation and the Treatment Act of 1986 identified nine categories of young people at higher risk: the children of addicted parents; children who are victims of psychic, sexual, or psychological abuse; drop-outs; teenage mothers; the economically underprivileged; juvenile delinquents; suicidal teenagers; the psychiatrically disturbed; and the handicapped (Kumpfer, 1987, as quoted by Bailey, 1989).

Among the psychological factors associated with the consumption of alcohol or other drugs, the authors identified behavioral traits such as the rejection of all authority, academic failure, and asocial or delinquent behavior (Kandel, 1982) and personality characteristics like poor self-esteem, anxiety and depression, a lack of self-control (Carrol, 1981; Kandel, 1981, as quoted by Bailey, 1989). These psychological factors act in the familial, genetic, and social spheres.

The social environment is a far from negligible risk factor. The models for behavioral identification proper to the child's environment (e.g., parents who are also addicts) has significant value in predisposing (Harford and Grant, 1987). The teenager's social beliefs and norms regarding drugs, along with a predisposition towards questioning all authority and rebelliousness (Semlitz and Gold, 1986), poor relations with parents, and a lack of social responsibility and religious commitment (Newcomb et al., 1986), are other risk factors.

However, as in everything affecting human existence, it is not appropriate to conduct a linear, cause-and-effect reading, without introducing the notion of circular, or, better, spiral causality. This mode of thinking introduces the notion of a continuum and temporal succession in all behavior. It is thus useful to distinguish a continuum between two poles, the nonconsumer, on the one hand, and the obligatory one, on the other. Between these two extremes there is a possibility of recognizing other forms of alcohol or drug consumption (e.g., the experimental or occasional consumer [Bailey, 1989]).





This behavioral panoply accounts for the identity function which may be performed by occasional consumption of certain substances in both children on the street and teenagers in general.

In any event, to trivialize the risks of occasional drug consumption is to forget that, for certain children or adolescents, some substances (alcohol, tobacco, hashish) are " gateway drugs " to stable forms of addiction to more dangerous products. The pleasure sought initially yields to greater psychological and even physical dependence.

5. Final Reflections

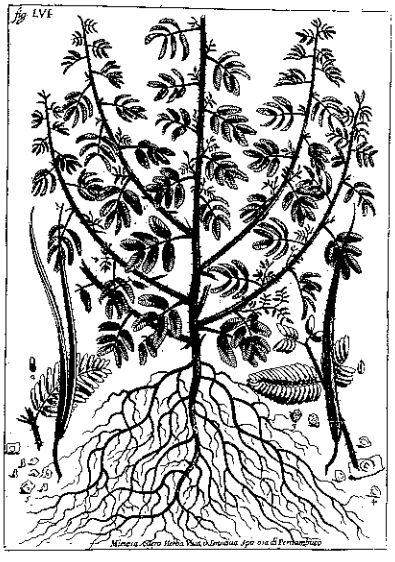
Drugs are " an ominous instrument to measure juvenile disarray. " "The teenage world in the richer countries is invaded by desires for escape. For drugs are a rejection and a flight. The rejection of a period in which the gods have died. The flight from a world where hope is lacking " (Hamburger, 1989).

In effect, current society is marked by a thirst for consumption and the search for immediate, readily-available pleasure. The meaning of existence and its openness to transcendence, along with the values of solidarity, responsibility, and commitment have become opaque, subjected to questioning, forgotten. Without the affirmation of a design, men of today, and, therefore, young people, risk drifting in an existence whose " roads seem to lead nowhere..... Without a program, without hope. When we do not know what to hope for, hope itself lacks meaning " (Hamburger, 1989).

In a world corroded by uncertainty in values and distrust of institutions and social structures, in a world devastated by the incessant search for money and power, in a world plunging the weak and most sensitive into uncertainty and bewilderment, drugs appear as an easy solution, though illusory and ephemeral.

It is true that the fight against drugs must be an unrelenting battle against traffickers. But this repressive policy, with all the ambiguities it brings with it, cannot dispense us from "subjecting to piercing criticism the structures which created the so-called 'civilized societies' to the exclusive benefit of certain monsters with siren-like powers known as economic development, insurance against all risks, and comfort " (Hamburger, 1989).

Man at the close of the century asks about his destiny and the meaning of his existence. He awaits a message of hope and love. Beyond the sometimes necessary repression of norms and prohibitions, men hope for a word, the Beatitudes, perhaps, the New Covenant, most certainly, a positive message, a response to their bewilderment, which will enable them to hope and thus face the grave threats weighing upon them and particularly upon the young.



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Bibliografia

N.B. Ringraziamo la Signorina Veronica Serrano per la sua collaborazione nello spoglio bibliografico di questo lavoro

BAILEY G., *Current perspectives on substance abuse in youth. Journal of the American Academy of Child and Adolescent Psychiatry* 28, 2: 151-162, 1989

CAPLAN G., *Principios de Psiquiatría Preventiva*. Buenos Aires, ED. Paidos, 1966

CARROL J.K., *Perspectives on marijuana use and abuse and recommendations for preventing abuse*. American J. Drug Alcohol Abuse 8: 259-282, 1981.

Dictionnaire général des sciences humaines G. THINES e A. LEMPEREUR, (Eds). Parigi, *Edition Universitaire*, 1975

DU PONT, R. L., *Prevention of adolescent chemical dependency*. Pediatric Clinics of North America 34, 2: 495-505, 1987

GOOSDEEL, A., *Rapport de mission CEE* Communication personnelle, 1991

HAMBURGER, JEAN, *Dictionnaire promenade*. Parigi, Editions du Seuil, 1989.

HARTFORD T.C., GRANT B.F., *Psychosocial factors in adolescent drinking contexts* Journal Stud. Alcohol 48: 551-557, 1987.

Johnson Institute Community Project. Bush Study. Minneapolis, Minnesota, opera non pubblicata, 1985 In: Zarek et al., 1987.

JUILLARD, O., *Toxicomanies*. In «Encyclopedia Universalis ». Vol 16, 207-211, 1979.

KANDEL D.B., *Epidemiological and psychosocial perspectives on adolescent drug abuse* Journal of the Amer. Academy Child Psychiatry, 21: 328-347, 1982

MORRISON M.A., SMITH Q.T., *Psychiatric issues of adolescent chemical dependence* Pediatric Clinics of North America 34, 2: 461-480, 1987

NEWCOMB M.D., MADDAHIAN E., BENTLER P.M., *Risk factors for drug use among adolescents* American J. Public Health 76: 525-531, 1986.

SEMLITZ I., GOLD M.S., *Adolescent drug abuse.* Psychiatric Clinics of North America. 9: 455-473, 1986.

SERVAIS E., *Drogues: un programme d'éducation pour la santé*, Bruxelles, Labor, 1984.

SERVAIS E., *Prévention drogues*, Bruxelles, Labor, 1988.

ZAREK D., HAWKINS J.D., ROGERS, P.D., *Risk factors for adolescents substance abuse.* Pediatric Clinics of North America 34, 2: 481-493, 1987.

PIERRE DE PARCEVAUX

Role of the Church

Before dealing with the topic of ny talk on the evolution of addic- ions since 1972, I feel it is impor- ant to make it clear to you, briefly, vhat is involved in the name " Na- ional Family Union to Combat)rug Addiction, " in order for you o situate correctly the specific na- ure of our action as well as the way n which our family movement has lecided to take on the problem of growing consumption of toxins by 'oung people and face up to it

UNAFALT encompasses the oncern of families that, having un- lergone the solitude and anguish lrug addiction creates in a home, ddiction to hard drugs, have worn to witness to their lives, their eeds and those of their children, vith one intention, deep need for esearch to keep other young peo- le from straying into drug addic- ion.

If I am before you today, as a riest and as Vice President of UN- AFALT, it is because I am deter- nined to express our commitment nd responsibility regarding a prob- em increasingly affecting the oung. As for prevention, our in- estigation and that of our team is riented towards constituting a roup force which will guarantee amily effectiveness in dealings with ne government sectors involved.

'arents' Experience

The fact is that for the past ten ears a new phenomenon has been ppearing exclusively affecting the oung. It concerns their use of rugs for nonmedical purposes, a se which has reached the propor- ons of a major social problem.

This social phenomenon is char- acterized by a considerable increase in the number of young people who take drugs, the rapidity of that in- crease, a decrease in the age of drug users, the spread of this scourge to all socioprofessional categories, and the fact that countless sub- stances have now become genera- tors of addiction.

In spite of real and significant ef- forts by the police to dismantle the drug networks, the more profitable that activity is, the harder it is to strangulate the petty dealing to which most addicts devote them- selves to get the doses needed for their own consumption.

Many newspaper accounts speak of the " phenomenon, " and not a week, or even day, passes without news of drug confiscations, arrests of traffickers, etc. Action which tends to make people think that there are drugs because there are drug traffickers. This means forget- ting quite readily that traffickers in fact take advantage of a situation, but do not create it.

This situation constitutes for us, adults, a difficult observation, be- fore which we tend to cover our eyes and sin through ignorance. Two words, then, summarize what must be done.

Inform, Prevent

Above all, inform

Drug addiction among the young in fact poses for us a general ques- tion on their rejection of life and the expression of an evil in the be- ing and living of these young peo- ple, who have adapted to neither the reality surrounding them nor their own reality and through a cer- tain product try to find an answer to their anguish and despair in the face of a world in which they feel they cannot act

The backdrop of drug addiction is the anguish each of us feels in a society wherein, through the inter- vention of the mass media, we are updated on everything happening in the world without ever being able to affect it ourselves.

This is a problem we as adults, relatives, and social leaders must talk about if we want to talk about prevention.

It is not enough to express this suffering of the young. We must be familiar with the means to fight and fight in the same direction, know- ing that all of us may be involved sooner or later.

The young convey their anguish in many ways, just as they articu- late their deep solitude before a fu- ture which presents itself to them without horizons and totally closed: " Society locks itself into its si- lence "; " no one dares to face the real problems, either in class or in the family "; the more unemploy- ment there is affecting the young, especially, at the end of their stud- ies, the more impossible it seems to them to project themselves into a valid future.

It is indigence, boredom, and de- humanized living conditions which most often consolidate the young in addiction.

The young are also given a cer- tain intelligence and philosophy re- maining at a strictly intellectual lev- el, without their being given at the same time the means to govern their daily life personally, with all this implies in terms of marginalization. The young then complaisantly ac- cept a kind of lack of personal and

social responsibility and expect to get everything from others and nothing by their own efforts.

To all of this there are added the different opportunities of the social classes coexisting: " My classmate has loads of money, but I don't "

What we must accept is that addiction prevention starts with adults

Young people in the current generation do not see the adult as an open being, happy to offer and share his life, in terms of either the family or the social image of the adult.

The young call for a solid, reliable model to identify with, for they need a position of recovery to take themselves in hand, along with stimulus and company to search for themselves and their profound life. It is necessary to help them to have confidence in themselves to trace out their path as adults, gaining progressive autonomy.

What we have observed in consultations at UNAFALT, as in the survey carried out among young addicts in 1981-1982, is that there is no typical profile of an addict, but there is a psychological prevalence of 80% in regard to three deficiencies:

— lack of dialogue;

— lack of " manifest " affection;

— an impossibility in identifying with their parents or " constructed " adults.

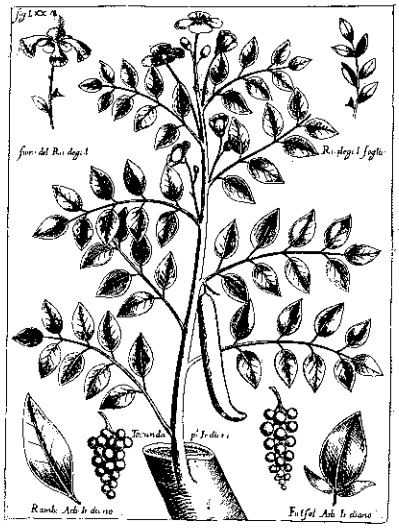
We must also accept that sensitizing the young to the problems of accidents provoked by drugs is difficult.

Drugs affect the young, above all, in the period of adolescence, a time of deep change and instability.

It especially affects those between 16 and 18, at a time when they are not very receptive to the notion of fear or danger, and when, on getting into contact with drugs, they are convinced they can easily stop taking them. They do not identify the " trap " laid by the product.

And they direct us back to our consumption as adults of licit drugs, alcohol and tobacco: " Why should I stop taking stuff, which makes me feel good, when Dad gets his fill of tobacco and his wine cellar is crammed with bottles? " " You have the right to keep a stock of wine, but not a syringe. Is that fair? "

It also strikes us that, if we channel our efforts into health education and a flourishing life, enabling them to discover, while they are still young, the health capital at their disposal, we can hope to reach them more easily.



What can be done in prevention lies in its origin and development

— Universally, nothing can be changed directly, but we should pressure our elected representatives to work out an international anti-drug policy and the limitation of the drug culture.

— Individually, the deficiencies observed must be taken into account. People can be prompted to change through information which opens their eyes, provides explanations, and leads them to ask how they deal with their anxiety.

— In the family, people need to be informed of our observations, for they lack drug information.

UNAFALT organizes DASS-approved sessions on the family's possible role in preventing and combatting drugs; three-day sessions which can be extremely valuable for families and all those in contact with the young. UNAFALT also organizes information meetings, when requested, and would like to have adults broadly informed.

Press reports should focus less on mere news items and more on the questions to be asked and the social action to be taken to deal with the growing wave of addiction among the young.

It is important to tell families that " affection is demonstrated in this, " that there are words a young person likes to hear, and that apparent indifference is horrible for them. That's where addiction escalation begins.

It is equally important to be alert to signs of anxiety and be a " sounding board " for them.

It is better not to be strictly repressive with the young. Above all, one must inform one's children about the harmful effects of drugs, becoming habituated to them, and

:he risks that are run without over-dramatizing. At an early age this is still possible. In the 16-to-18 age group the notions of fear and danger have very little meaning.

Collectively

— Everything holds us back in drug addiction. Everything seems to be beyond our powers.

— We must replace outworn conceptions and seek solutions in solidarity and proximity.

— On a priority basis, we need broad, objective, and not overly dramatic information for the greatest possible number of adults and particularly of our elected representatives (UNAFALT note).

We must fight drugs on their own ground, realistically and without losing our balance, quite conscious of the fact that protecting our young people requires at once suppressing the substances—but that eludes us to a great degree—playing close attention to a fragile terrain which is predisposed and to a favorable environment which must be opposed, and solidary joint action by adults, above and beyond all political and religious differences

Conclusion

As regards protecting against addiction of the young, it does not involve providing answers predetermined by our adult ideas, but starting from what young people are and building with them and local advisors a " dynamic synergy, " recalling that their expectations for relationships remain immense, as well as for gestures and consistency, and prepared to respond to any questions from individuals or groups when the drug problem arises.

Reconciliation

This subject of reconciliation may touch us especially when we are dealing with illness. In effect, illness profoundly disturbs our habitual relations with others.

1. Shouldn't we reconcile ourselves, first of all, with our life, just as it is?

Before ourselves

How can we reconcile ourselves with our neighbor if we are not first reconciled with ourselves?

Above all, guilt feelings are opposed to it. To what extent are we responsible for our neighbors' illnesses? A question without an answer threatening to lead us to despair.

But it is possible to " be reconciled with oneself in trusting God, " for " Christ did not come for those who think they are healthy. " " At the very moment we recognize our fragility, our limits, our weaknesses, the Lord can come to our aid. "

Often the fact of taking a step back to enable us to give some meaning to events progressively serves to discover " one's vocation as the parent of a drug addict. "

In the face of our difficulty in relations with a son or daughter

" In spite of the diversity in situations, all parents feel the same anxieties before that loved one with such unforeseeable, painful reactions. "

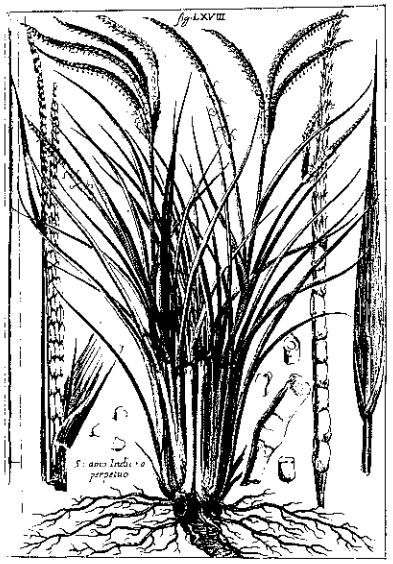
The latter is isolated in his impossibility of communicating with others. He has disappointed our expectations, the hopes placed in him He has destroyed family harmony as we had imagined it. Our tendency is to make him pay for it.

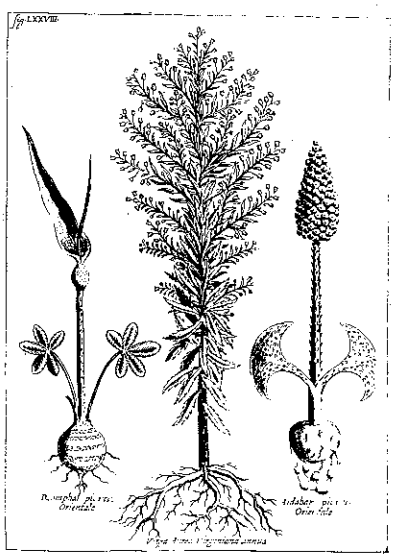
In addition, " the illness of others reveals to us our own fragility " and it is hard for us to accept.

But excessive severity threatens to cast our child further down. " You mustn't accuse him, since he did not choose this situation. " " He continues to be a real, complete person, in a mysterious relationship to God. " One must discreetly go on listening, take advantage of the slightest favorable opportunity to initiate a dialogue, attempt communication, " knowing how to conceal oneself when appropriate.

In the face of our neighbors

All parents painfully experience conflicts and incomprehension.





— Divisions between parents of a handicapped child who cannot agree on the causes of this fact, its remedy, and the conduct to be followed.

— Incomprehension with family and friends, who do not understand us and judge us. " One is an outsider with others. "

— Difficulties with psychiatrists and doctors Parents sometimes feel accused, put aside, and rejected.

Doesn't reconciliation, beyond all unpleasant experiences, consist of leaving the door open to dialogue, so that gradually another glance, of understanding and love will be directed towards the one affected by everyone surrounding him, relatives or physicians?

In the face of our brothers and sisters

It is not just a matter of motives for complaint we may have in regard to others, but of the mistakes which may motivate the hostile attitude of some. " It is easier to forgive than to recognize that we need the forgiveness of others. "

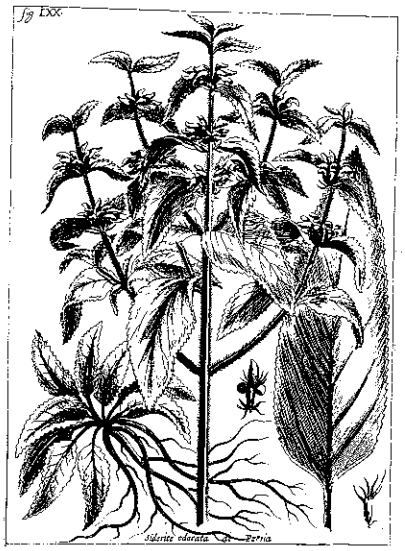
All of us have to learn to discover the other, to recognize him as he is, try to understand him, accept him in his difference. " If you differ from me, far from harming me, you enrich me " (Saint-Exupéry).

But one must know how to welcome the other without renouncing oneself, otherwise reconciliation would not be authentic. The distinction between the person and the idea is likewise important. One can reconcile himself perfectly with another without agreeing with his ideas.

" True reconciliation often undergoes confrontations, conflicts one would certainly like to be spared. Peace is often an open conflict we have overcome. "

In the face of the Church

In our parish communities we find a certain ignorance, incomprehension, or indifference to our difficulties. " The mentally ill seem like useless members. " The same may be said of drug addicts. We often tend to judge the Church, to accuse it, as if we were outside it. " It is therefore necessary to tell ourselves that each of us Christians and all of us together are the Church, and that is why we are responsible for changing mentalities. "



2. What can help us

Prayer

All groups have dealt with the need for prayer. One group has especially insisted on Our Lady and shown a parallel between her trials and our own. " She experienced the anguish of a mother over her son. " She had a son regarded by his fellows as someone who had " lost his head. " " Because of her complete trust in her son in the face of trials, Mary, fully entering into the mystery of Christ, is the perfect example of the road to be followed. "

The Mass

The Mass has also been mentioned by groups in general. " The Eucharist is the sign of our hope. Unity is already realized therein. " It can also be the source of a reconciliation.

But it is hard to find places of prayer in which people bear up with or, better, welcome the " handicapped, the drug addicts. "

To take part in fraternal exchanges among Christians confronting the same problem. " Groups united by the same faith and the same trial bring us much-needed comfort. " " It is important not to remain isolated, to be able to participate in exchanges, so as bear our heavy burden together. "

For many, our group is a great relief

To emerge from the " conspiracy of silence, " concerning illness, AIDS, drug addiction, handicap It would be necessary to " ask for the help of the parish community and the different Christian communities in which we participate, " " help to create awareness, " " take responsibility for ourselves, " " overcome

our shyness " to try to integrate our young people who are victims of a collapse.

Suggestions:

— act upon the mass media, especially the Catholic press;
— offer the intentions of our sick at Sunday Masses.

Conserve hope: " Christ is with us until the end of time. "
" Evil will not always exist; it will not have the last word about us. " Moreover, we are not completely alone in our efforts at reconciliation: " What we live is not lived by us alone, on our own account. Everything can serve as nourishment, at opportunity for grace for the flock as a whole. "

3. What does this reconciliation involve or bring with it in our faith life and relations with God?

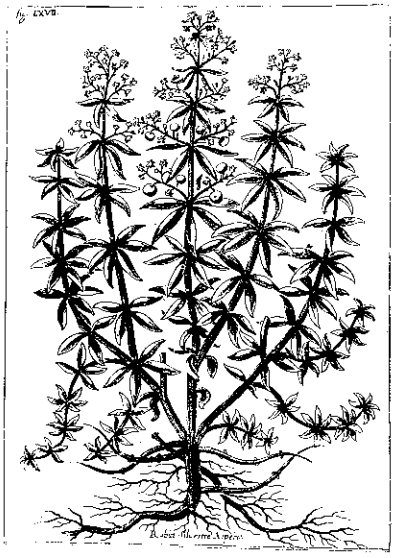
" We oscillate unceasingly from guilt to rebellion against God. " We often tend to regard God as responsible for our situation or at least to think He has forgotten us. " Why is He furious with me? " " He has forgotten me. " And everyone knows the typical " But what have I done to God? "

Reconciliation with God can come into play here, a basic return, a conversion. " God cannot want evil or suffering. He is nothing but love. " " Profound bitterness towards God can only bring us lower. "

On the contrary, God has sent his Son to experience our human condition. " God has come to bring his presence into suffering " (Claudel), to save us. We can thus attempt to have an " attitude of trust, self-abandonment, and union with the suffering Jesus. "

Some groups have spoken of an act of penance at the beginning of the Mass. It has nothing to do with self-blame. To recognize oneself as a sinner is not at all humiliating in Christian faith. " It is the moment at which one is lifted up again. "

In this way, the search for reconciliation with oneself and, consequently, with others " depends on reconciliation with a God who is Father and Love " and the " conviction that we are children of God. "



It is easier to love when one feels loved. If we truly feel loved by God, we can accept ourselves as we are, with our limits and weaknesses and thus become a source of peace and reconciliation for others.

Isn't it the role of all Christians to be reconcilers in Christ?

Reflections

Some observations from a person in a parish. I am, of course, speaking of France.

1. As a priest at the service of evangelization, I observe the disorder of some young people experiencing a break with themselves, lacking any and all real communication and any model in their parents, going through the sexual act with difficulty, becoming fragile, hypersensitive, unable to give the best of themselves in large secular or Church gatherings, immersed in disarray, coming back home alone.

In everyday life, in our sacramental celebrations, we need to be able to find for our laity a language which will be an invitation to conversation, to trust. It is urgent for us to find a new face for the Church so that those young people will rediscover the extent to which they are loved by Christ and not stray into sects, through an emotional recovery and the reception of security in society.

2. There is a serious problem in poorly understood activity between psychiatrists and priests. Many priests confirm to me that they have never seen a person come back when they have entrusted a young addict to a psychiatrist. He becomes a " medicalized " being, and his spiritual dimension completely disappears. Some young people have revealed to me their experiences confidentially. It is true that we, as priests familiar with this field, have received training in counseling that some have lacked at the seminary, but doesn't the grace of discernment exist?

3. Christians perceive a marked increase in drug use, but they react emotionally. Only some Christian parents take responsibility for this fight. Great expectations are heard

from all generations: "Why doesn't the Church support us? Why are there no words to encourage families to combat drugs, to support the families affected by drugs and remove the sense of blame? Why don't the bishops speak out from the pulpit? Why so much silence? "

In communion with our Bishop in Paris, Cardinal Lustiger, twice a year for the past five years I have been organizing days of prayer and fasting in the churches of the city. There has been little echo among my brother priests. Very little mobilization of our fellow Christians, except those affected by drugs. The only responses remain emotional: " Father, " some say to me, " what fine work you are doing! " For us, priests, and some laymen involved in this area, there is a need to hear talks that get people moving.

Five years ago I launched a chain of spiritual aid, entrusting to each person the name of an addict and his family. The average age of those responding to the call is beyond the limit for senior citizens, mostly invalids, for their own part. This gives them a chance to open themselves to life

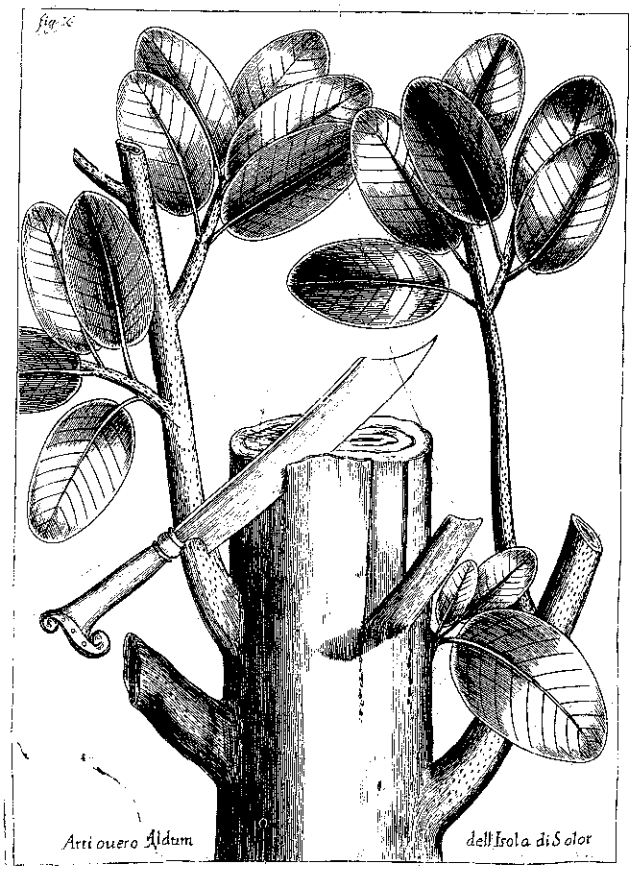
I shall conclude my reflection with the request, Holy Father, for a message of mobilization, communion, and action for drug addicts.

They are not lepers.

We must learn to divest ourselves of our French material well-being to take part in the loneliness, suffering, and even death invading the addicts and their families.

May your message of hope also be an aid to priests, religious, and lay people who are working in this field, on behalf of the Gospel.

Rev. PIERRE DE PARCEVAUX
Vice President of the National Family Union to Combat Drug Addiction, Paris



HIROSHI NAKAJIMA

Role of Health Care

Substance abuse poses a global hreat to health of rapidly worsen-ıg dimensions. On the basis of cur-ent trends, it is clear that drug and lcohol abuse are escalating, both ı countries where there has been a ɔng history of problems, and in ountries previously relatively free ıom such problems. In many coun-ies, substance abuse has become ne of the major causes of health nd social problems, if not the ma-ɔr cause. It leads to individual suf-ering and to vast economic losses.

This is the sobering background ɔ the situation in which we now nd ourselves. I very much wel-ɔme the foresight of the organizers f this Conference, who have rec-gnized that the situation is one ıat cannot be changed if action is ıken by one sector alone. Sub-ance abuse calls for a multisecto-ıl approach, which is reflected ex-ctly in the broad range of partici-ants present at this Conference. cientists and politicians, govern-ents and nongovernmental orga-zations, all have essential roles to ay. Indeed, WHO has long em-ıasized that a public health ap-oach to drug and alcohol depend-ıce must be a multisectoral ap-oach.

During the past two years, un-ecedented international attention ıs been paid to questions of sub-ance abuse. In February 1990 the nited Nations General Assembly ld a special session on the subject New York. In April 1990 the overnment of the United King-ɔm, with the United Nations, con-ned a World Ministerial Summit London. At the Summit, I was ıpressed by the new emphasis be-g given to strategies for reducing e demand for drugs, in addition to the traditional concern for re-pression and law enforcement. In May 1990, the World Health As-sembly unanimously adopted a res-olution on demand reduction, call-ing for a strengthening of WHO's action in this area.

In response to this resolution a new WHO programme on sub-stance abuse was established in Sep-tember 1990. Much of the focus of international concern has been on the abuse of illicit drugs, but I am convinced that WHO should ad-dress alcohol-related problems with equal force. Some organizations and bodies of the United Nations system—notably the United Na-tions International Drug Control Programme (UNDCP) based in Vienna—have mandates that ex-clude action on alcohol. WHO's mandate has no such limitation. In the perspective of public health, the most compelling arguments are those that recognize the commonal-ities, as well as the differences, be-tween psychoactive substances, re-gardless of their legal status.

While it is clear that many differ-ent sectors have roles to play in re-ducing the burden that drug abuse places on society, I have chosen to focus my remarks on the special role of the health sector. Let me, therefore, remind you of the WHO definition of health. Health is a state of complete physical, mental, and social well-being and not mere-ly the absence of disease or infirmi-ty. Such a wide and positive defini-tion of health requires the active en-gagement of health personnel at all levels: local, national, and interna-tional. With success will come mea-surable improvements in exactly those aspects of life that form the basis of this definition.

It is worth mentioning that inter-national concern about substance abuse is not new. This hieroglyphic text, which dates from about 1500 B.C., reads: "Make not thyself helpless in drinking in the beer shop. For will not the words of thy report repeated slip out from thy mouth without thy knowing that thou hast uttered them? Falling down, thy limbs will be broken, and no one will give thee a hand to help thee up. As for thy compan-ions in the swilling of beer, they will get up and say, 'Out with this drunkard.'"

Not so very far, really, from its modern equivalent. In other words, concern has been with us for a very long time, whether about alcohol or about other drugs. What is differ-ent about the current, modern sit-uation is that there is now a power-ful international consensus to take action on the basis of that concern.

The escalation in the abuse of drugs is a global phenomenon, in-volving a wide range of substances. Although a few countries report a decrease in drug abuse, the vast ma-jority show no improvement, or else report increases. There are var-iations, depending on the particular drug or the particular country, but the global tendency is certainly to-wards an ever-increasing use of psy-choactive substances as a whole. Particularly worrying is that some of the sharpest increases in adverse health consequences of substance abuse are in the countries that can least afford them.

Although these data relate to il-licit drugs, exactly the same is true for alcohol. While consumption and related problems have levelled

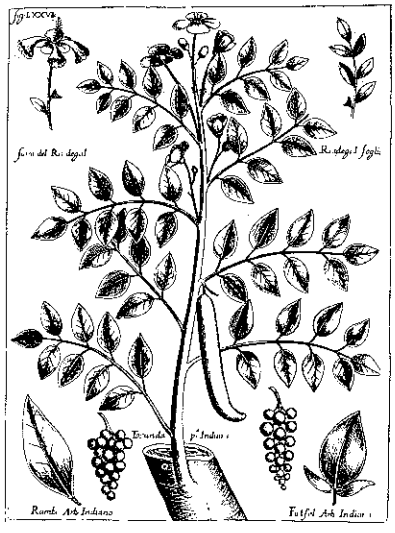
off, or even begun to decline in a number of industrialized countries, they are increasing sharply in the developing world.

As a general issue, I would like to stress the importance of recognizing changing patterns in substance abuse as a basis for formulating effective programmes. In the past, using a psychoactive substance was frequently a matter of individual choice. Recent trends show that it should now be viewed more as a group activity, particularly when younger abusers are involved. This change inevitably calls for an adjustment in approaches to prevention and treatment. Earlier in this presentation, I mentioned the new emphasis being given to demand reduction strategies.

Although many different sectors of government, together with nongovernmental organizations, need to be involved in the design and implementation of demand reduction strategies, the role played by the health sector is central to the success of national efforts. For example, health education in the schools, and health promotion for out-of-school and street children, can help to build the foundation for healthy lifestyles, free of drug abuse. Efficient drug regulatory systems, and responsible prescribing practices by physicians, can reduce the problems caused by the abuse of licit psychotropic drugs. The proper implementation of primary health care can lead to the speedy identification of drug-related problems before the onset of severe dependence. And better access to drug treatment facilities can dramatically improve the chances for subsequent rehabilitation. There are also special settings, such as the workplace and prisons, where additional efforts can produce encouraging results. In other words, the whole range of health personnel can and should be involved. Their involvement needs to extend to building effective collaboration with colleagues from other sectors.

In the past, much effort has been devoted to law enforcement, and to measures designed to deal with the supply of drugs, including crop replacement. I acknowledge, as we all must, the importance of these measures. But it is becoming increasingly apparent that they alone cannot succeed. To reduce supply, we must also reduce demand. Reducing demand for illicit drugs requires, first and foremost, action in the health and welfare sectors. Such action must be in full cooperation with all other relevant sectors. I want to emphasize how timely this Conference is, in that it provides an opportunity to discuss the commitment and the technology required to stimulate national demand reduction plans.

Through its six regional offices, and its network of WHO representatives at country level, the World Health Organization is well placed to keep its finger on the pulse of the global drug problem, and to mount speedy and appropriate responses. Through its networks of collaborating centres and individual experts, the Organization is also uniquely placed to provide leadership in the medical, health, scientific, and social sectors, transcending national differences and harnessing these networks in a global effort to fight the causes, as well as the consequences, of drug abuse. Its vital role in the worldwide effort to halt the spread of AIDS has already demonstrated WHO's capacity to act swiftly and efficiently.



Within the total response to substance abuse, the health element deserves greater prominence, because it is precisely the health sector that can play a key role in mobilizing, supporting, and sustaining effective action to reduce demand at international, national, and community levels. Here is one way to try to achieve coordination at national level. In this example, a national coordinating committee receives inputs from government departments, from international organizations, and from nongovernmental organizations. Different countries will no doubt wish to organize themselves in different ways. However, the main purpose must still be to ensure that all those who have something positive to contribute to implementing demand-reduction measures are given the opportunity to make that contribution.

I cannot stress enough how important it is to look at substance abuse in the context of the broadest possible view of health. It is true that great advances have been made in recent years. Trends in childhood and infant mortality rates have been falling steadily, and it is expected that they will continue to fall. Other basic health indicators show encouraging trends. Within this context we can feel some optimism about our capacity to also make an impact on the health consequences of substance abuse. But we cannot afford to be too complacent.

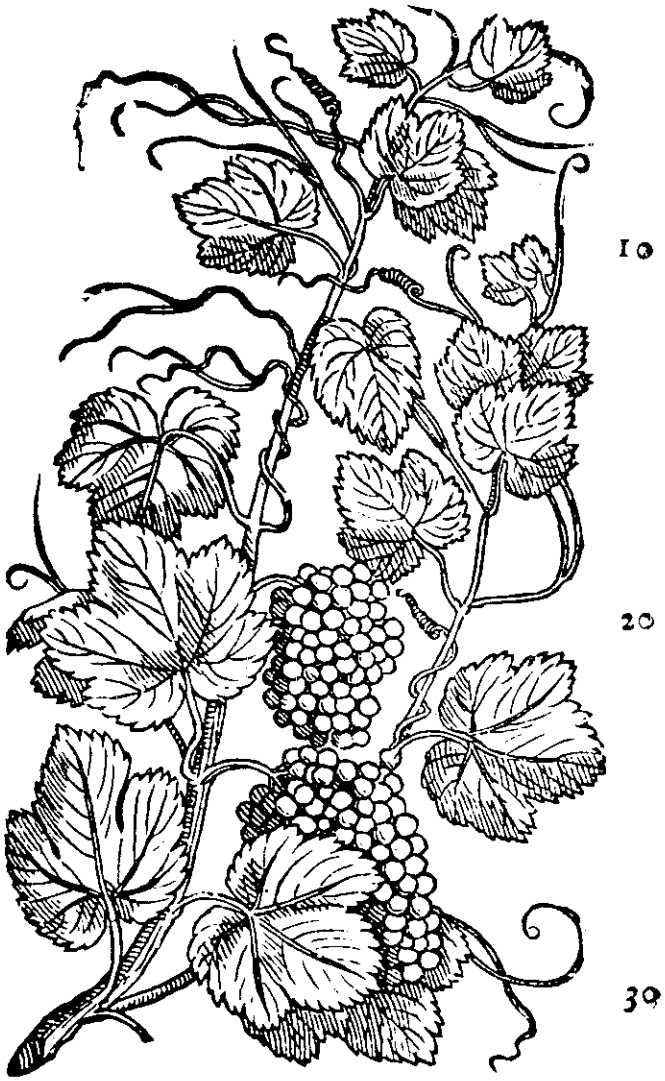
These data are from one single year, but they give an indication of the magnitude of the problem. And they are based largely on police seizures, which, most agree, represent a very small proportion of the drugs consumed. Consider these figures in relation to the trends I described earlier, demonstrating how drug abuse is increasing throughout the world. We have already reached the point where to find quick solutions to the problems of drug abuse is no longer possible. The health dimensions of the problem are of crucial importance, because for many countries they represent a huge burden in terms of costs incurred. The health dimensions are also important because they provide an excellent opportunity for taking action. At the same time, it is no longer sufficient to look at health issues in

isolation from the wider socioeconomic context in which they manifest themselves.

For WHO, health promotion and disease prevention are just as important as finding better ways to cure diseases. More attention needs to be given to the psychosocial factors that lead to substance abuse. The health sector is well placed to take the steps necessary to provide the broad support which will help to avoid substance abuse gaining its foothold in society. In doing this, we must take into account a wide range of factors. These include: respect for human rights, especially of the underprivileged; human health in a changing environment; equity of access to care and substance abuse treatment services; the continuing development and communication of scientific knowledge, and the improvement of technical interventions for health; promotion of healthy behaviour and lifestyles; the role of the ministry of health in influencing public policy and government decision-making, including resource allocation for the control of substance abuse generally; and global interdependence where substance abuse and health are concerned. This is why I am convinced that, without the active and central involvement of health bodies, we shall never be able to halt substance abuse.

Dr. HIROSHI NAKAJIMA
Director General
of the World Health Organization,
Geneva, Switzerland

VITE VINIFERA.



JOAQUIN NAVARRO-VALLS

Role of the Mass Media

Nobody has probably turned to drugs because of the *mass media*. And nobody has probably dropped drug consumption because of public information, either. Nevertheless, the *media* play an important part concerning the spread of illegal drugs. First of all, in the field of prevention. In my opinion, this has been and is still positive: emphasizing the problem with the public is a factor that no efficient drug prevention programme of today can leave out of consideration. Drug addiction is already a massive phenomenon. Its prevention must make use of the mass media, which have to make an effort. The *mass media* have been able to accept this challenge. Sometimes with extraordinary success. Nevertheless, a continuing analysis should always take place in order to permit further improvement of this preventive function of mass media.

From a *quantitative* point of view, no professional working in the field of information can be *censored* as far as drug addiction is concerned. All studies on press analysis, as well as statistics of cinema and advertising productions, coincide on one fact: drug addiction, as a theme of general interest, has spread throughout communications. This information *volume* is justified by the diffusion and gravity of the problem.

As far as *quality* of all this information is concerned, opinions have been less unanimous. Dissent grows when it comes to prevention. Is the role of the *mass media* useful and efficient for the prevention of drug addiction? And if this is so, which insufficiencies can be overcome to improve its function in this field?

The answer is not easy. There is no objective parameter able to quantify the influence of the *media* on drug addiction. Neither is it possible to fix statistic values of a hypothetic cause and effect relationship between the two phenomena. However, it is possible to analyze the *mass media* information on drug addiction, discovering insufficiencies which can virtually play a negative role in the understanding and prevention of drug addiction.

Basically, two dimensions of the drug addiction problem can be pointed out. On the one hand, the dimension of drug production and commercialization; on the other, the dimension of individual factors of drug addiction. The *mass media* deal with both aspects, though in a different way. And in both one can find insufficiencies, especially in the form of *stereotypes*: that generalizing simplification which replaces reality by a handy pattern.

Mass Media and Commercialization of Drugs

Mass media have played an important role by explaining the commercial dimension of the drug phenomenon to the public. The *media* have spread efficient and sufficient information on the structures of drug production, its geographical roots, its channels of distribution, and its commercialization for consumption.

Some of the facts mentioned in this Conference are generally known, due to the mediator role of press and television. The economic dimension of the drug phenomenon, its sources of production, its channels of diffusion and its commercialization structures, etc.: these facts, which could be completed by many others and which are surely useful for prevention, have been put at the disposal of public opinion by means of the mass media. Thanks to the media, today's culture has lost its state of innocence in view of the enormous economic interests of illegal drug commerce.

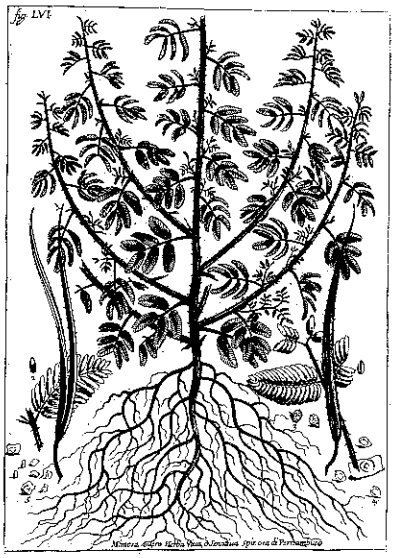
But this information does not lack stereotypes, either. A typical one is the identification of those responsibles for illegal drug commerce beyond—and, if possible—far from the national borders. Inevitably, in every country, most of the information on drug traffic is referring to the external *links of the chain*. It is forgotten that frequently most of the *encashment* due to illegal drug traffic goes to local *drug pedlars*. A well-known estimate says that out of 100 dollars paid by an American drug consumer, 92 remain in the United States, 4 or 5 go to the *intermediary*, and only 2 dollars to the producer.

Frequently, a country's information is filled with stories about "*drug tycoons*" of distant countries, or, even more limited, with facts about *growers*, such as those of the Andes region. There is less insistence on national responsibility for traffic and distribution of drugs. This stereotype, which transfers one's own responsibility elsewhere, is not a case of hiding; it seeks to succumb to the idea that evil is, at first, *something distant, outside reality*. This philosophy, often not expressed but implicit, is always a *hurdle* for prevention because it escapes from the responsibility of the individual and society.

The second aspect concerning in-

sufficiency of information regards the risk of *incitement to drug crimes*, by means of a precise *philosophy of description*, prevailing in the cinematographic sector of communications. Very often films and TV reports show spectacular personal itineraries of success that is linked to drug traffic. The repetition of these images, though they are always accompanied by negative evaluation, reveals a certain admiration, not for illegal drug traffic, of course, but for the easy profit and the fascination of money as the absolute value of life. The persuasion is of that kind: " If other people do it, I'm able to do it, too. " By this time it is more than a mere suspicion: the behaviour pattern of criminal actions has a remote root —sometimes not deep, but efficient anyway— in this *philosophy of description*, which is offered by a part of cinema production. Pardoxically, the effort for prevention causes a phenomenon of incitement to abnormal ways of acting, which can be satisfied by entering the world of drug traffic at different levels, varying according to personal capabilities. Of the two basic dimensions of the drug addiction problem —commercialization and individual addiction factors— the mass media have focused their attention on the first. There has been more information on the commercial phenomenon than on the human aspects —family, psychological, educational, etc.— which stand at the beginning of drug addiction. It is certainly useful for prevention to understand the economic mechanisms of the international drug market. But it is equally obvious that efficient prevention cannot be done by referring to a philosophy which considers the problem only in economic terms. To prevent supply, to sanction demand, to hinder distribution, to fix a policy of cultivation replacement and alternative development: all this is very important for prevention. But to fix the problem *basically* on these parameters means to deny a fundamental and inevitable fact: the demand for drugs exists and is based on a serious anthropological and individual problem.

It is wrong to propagate the idea that a modification of the market's structures —if possible at all— would solve the problem, and that



the reality of drug addiction is based on an extremely well organized supply. To *socialize* the problem instead of *humanizing* it is perhaps the most perilous stereotype of social communication. The problem is depersonalized; since responsibility belongs to everybody, nobody feels responsible, at least as far as personal decisions are concerned.

Mass Media and Personal Factors in Drug Addiction

Here we enter the most important aspect of the interaction between drug addiction and *mass media*, which can be called the topic of the *opposite patterns*.

The alarming information on drug addiction given by the *mass media* is certainly justified. The graphic or written information upsets us because of its sincerity by which it reflects a very negative phenomenon. But this information is included in the context of the newspaper or a television programme and therefore put together with the rest of the information by which the *media* present daily reality.

The fact is that under the apparent neutrality of information and its intentions, certain criteria of interpretation of reality are transmitted, and thus true life patterns. And very often these criteria —sometimes explicit, sometimes implicit— support a conception of life which is similar to an ethical relativism where moral principles are no longer an imperative value of existence. Instead of " I have to be " there appears " I want to have " as a decisive impulse of life. The resulting life patterns float in a desolating vacuum of values.

At this point, the information which criticizes and regrets drug addiction clashes against all other information, which implicitly creates an ethical and anthropological climate where addiction is considered a possible and probable consequence of today. It is the conflict of *opposite patterns*, on one hand, ethical relativism, on the other, a merely formal and inefficient moralism. The effort of prevention is getting sterile in this swamp of contradiction.

It is a wrong perspective to deal with the problem in terms of "*illness*" instead of "*symptom.*" Drug addiction is always and in the first place a personal matter, though statistics may reveal its massive dimension and social analysis may discover a powerful traffic organization. Drug addiction is always—and especially regarding widespread juvenile addiction—a *symptom* of an individual crisis; perhaps of multiple dimensions, but inconceivable without an anthropological conflict—a breakdown of the sense of life, due to the loss of values on its horizon. Prevention includes a reconstruction of values in family and society. The permanent conflict between those patterns—ethical vacuum or moral formalism—is always characterized by loss of values.

It should be repeated at this point that the *media* are not the cause for drug addiction, and the *media* will not solve this problem. But the *media* play an important part in prevention, if they concentrate on the anthropological aspects of drug addiction and not just on the purely social facts; if they help to discover the national responsibilities for the problem; if they tend to *personalize* the problem instead of *socializing* it. And, above all, if they participate in the reconstruction of the ethical horizon where the juvenile question concerning the sense of life will find an answer, or, at least, a reason.

The *media* have already done a lot in the field of drug addiction. To improve their part in prevention remains a great ethical, human, and social challenge.

Dr. JOAQUIN NAVARRO-VALLS
Press Office Director of the Holy See



JUAN ANTONIO SAMARANCH

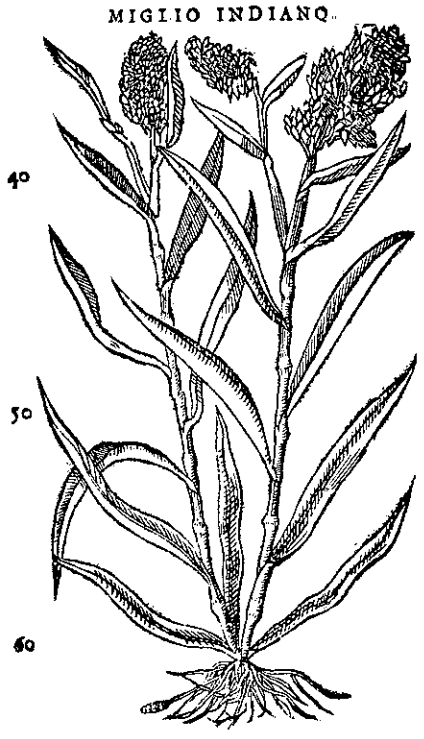
Role of Sports

Sports are in the first place a way of educating which constitutes an integral part of culture. As far as training and education are concerned, sports are an important factor of balance. Practising sports should be the best way to fight violence and drugs.

Games and sports have been part of human life since the beginning of history. The first sporting activities probably go back to nomadic tribes in different parts of the world. As regards the first competitions, organized on the basis of certain rules or according to settled traditions, they can be found in more stable societies, such as China, India, the Near East, Egypt, Crete, Greece, etc.

The origins of the games which have most affected human society and history, the Olympic Games, are lost in the mists of mythology and ancient history. It seems, however, that the ancient Olympic Games did already exist several centuries before 776 B.C., when time began to be measured by Olympiads in ancient Greece, and the Olympic winners' names were engraved on marble in the civil registers. Even if they were no longer held after the year 393 A.D., their grandeur and fashion have survived thanks to the poems of Pindar and Pausanias. In the 17th and 18th centuries, the interest in classical Greece made the history of that Games reappear: they had been great sports, cultural and religious manifestations which gathered athletes, artists, and pilgrims from every region inhabited by a population of Greek language and culture.

Therefore, history, before restoration of the modern Olympic Games by Baron Pierre de Coubertin in 1894, saw several isolated attempts to make the Games revive. Dr. William P. Brookes, an Englishman who studied Medicine in Paris in the early 19th century and who had felt even more acutely than his contemporaries the mysterious influence that the Hellenic civilization had exerted through the ages on mankind, created his "Olympic Association" in the small English village of Much Wenlock. That Association's aim was "to contribute to the development of local inhabitants' physical, moral, and intellectual qualities by encouraging exercises in the open air." Dr. Brookes established the "Olympic Games of Much Wenlock," which had great local success and are still organized in that English village.



Another "Olympic precursor," Evangelios Zappas, a rich merchant of Greek descent who emigrated to Romania, was also an admirable humanist of the 19th century who felt keen on Greece and wanted it to find its place again in the vanguard of the western cultural world. With the approval by the King of Greece, he established in Athens in 1859 an "Olympic Competition" entirely financed by him which he wanted to be repeated every four years. Unfortunately, despite Zappas' generosity, these competitions never crossed the frontiers of Greece, or rather the borders surrounding the city of Athens. In his last will, Zappas left most of his huge fortune to an "Olympic Games Commission" which was to restore the Games. To that end, Zappas wished a stadium to be built in Athens, which did not happen.

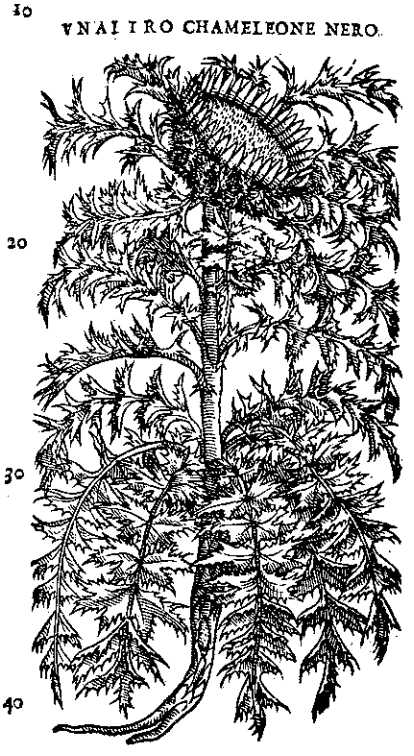
In the two cases mentioned above, as well as in those of other precursors of Baron de Coubertin, it was just a matter of intellectual wishes or projects geographically too confined which, if actually realised, wouldn't have had any consequence or impact on cultural and sports life in general.

At the beginning of the 19th century a humble British churchman, Thomas Arnold, during his time at the college of Rugby from 1828 to 1842, used sports as a means of education. Like a large number of his contemporaries, he was indignant at the degradation of religious faith and the amorality of his pu-

pils; he therefore established, through the practice of new games such as football, as well as racing and athletic sports, a new pedagogy for individual responsibility and social solidarity. He believed that, thanks to this new pedagogy, his pupils would find the path to God and become good citizens. The effects were extraordinary and almost immediate. In less than fifteen years the change in his pupils was surprising. Sports as he taught them, freely permitted, freely organized, gave birth to generations of men of character who formed the cadres for the Empire and the Church. Thomas Arnold's pedagogical method spread rapidly all over England. From college to college sports invaded Great Britain to the extent that they became an integrating part of British culture. When Pierre de Coubertin visited England shortly thereafter, the model offered by that country's colleges, as well as the universities in the United States and Canada, recalled to the young French reformer of pedagogy how sports can be a school for character formation and moral improvement. Such an experience, together with his search for harmony between soul and body which he found to a great extent in ancient Greece's Olympic Games, had a great influence on the future renewer of the Games.

Baron Pierre de Coubertin (1863-1937) succeeded in 1894 in reviving the Olympic Games, giving them a modern and international framework. According to this great reformer of pedagogy, history was to be considered the most important of sciences owing to its educational force. His master at the Jesuit College in Paris, Father Caron, was the first to awake in him interest in ancient Greek and Olympic history.

Thanks to the Greek example and the influence exerted on him by his journeys in England and North America, where sports as a means of education had been much more developed than in the France of his time, Pierre de Coubertin became convinced that sports, if organized on the basis of certain principles, could give young people and mankind in general not only physical benefits, but also good cultural, and above all moral, qualities. With great wisdom he conceived some basic olympic principles



which, if followed, would bar the way to excessive ambitions, greeds, and thirst for power that lead to corruption and decline; human history overflows with examples of such excesses. He struggled until his last days of life to introduce into education, pedagogy, and life in general certain values such as charity, loyalty, respect for the others, assiduous work, modesty, love and friendship, which result neither in money nor in personal power, and which include the Olympic spirit. Great are the merits of Baron Pierre de Coubertin. Not one of the many innovations he proposed and realised was motivated by his own interest. His unique aim was to be at the disposal of others.

According to Baron Pierre de Coubertin, who is the Olympic Movement's founder, the idea of restoring the Olympic Games represented logical outcome of the whole of contemporary history. The 19th century had seen a taste for physical exercises revive. Great inventions such as, for instance, the railway and telegraph had narrowed distances. Human races had began to mingle and to understand one another. Literary or scientific congresses had begun to bring into contact the most varied intellectual skills. Pierre de Coubertin's great idea, which he had borrowed from one of the most remarkable peculiarities of Greek civilization, was that sports and physical exercises should be used for the work of moral education. At that time in his country, France, physical idleness was, on the contrary, considered as a necessary corollary to intellectual improvement. The Olympic games were to be one of the means to make muscles take part in moral training and to improve the education of youth.

This is how modern Olympism was conceived by Pierre de Coubertin, whose initiative resulted in the establishment, in 1894, of the International Olympic Committee.

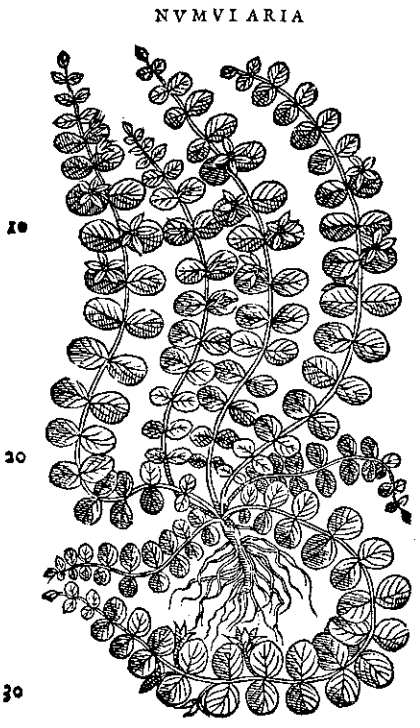
Olympism is a philosophy of life that exalts and combines in a well-balanced whole the qualities of body, will, and spirit. In joining sports with culture and education, Olympism tries to create a way of life based on joy in physical effort, the educational worth of good examples, and respect for basic and

universal ethical principles. Olympism's aim is to join sports with art and culture and to place them at the disposal of man's harmonious development with a view to encouraging the establishment of a peaceful society, concerned with preserving human dignity.

The Olympic Movement arising from modern Olympism aims at building up a peaceful and better world by educating youth through sports joined with culture and practised without any kind of discrimination, according to the Olympic spirit, which requires mutual understanding, friendly conduct, solidarity, and fair-play. The International Olympic Committee, which is the supreme authority and the Olympic Movement's guide, tries to contribute to the abolition of discrimination in sports. This is why, for instance, it helps on a larger scale in the abolition of apartheid.

That Movement's activity reaches its height when athletes from everywhere in the world meet for the Olympic Games. But it is not limited to this end. It is permanent and universal. We are interested in the moral effect that sports and physical exercises have on children, teenagers, and adults, and in the influence exerted by physical effort on character formation and the development of individual personality. Quite generalized reduction of working times in a large part of the world multiplies most men's and women's possibilities for cultivating themselves. Our task is to see to it that such free time is usefully spent and give a number of sports lovers a chance to relax and to strengthen spiritual and bodily health.

Olympism owes its motto, " Citius Altius Fortius, " to Father Henri Didon, prior at the College of Arcueil and a good friend of Pierre de Coubertin. He was a great reformer of pedagogy and fought not only to have sports introduced into the educational system of France, but also to have young people be given absolute freedom for the establishment of sports associations in their own schools—in other words, to have young people be free to organize by themselves their small sports clubs, to appoint their president, treasurer, secretaries, etc. For, when legitimated by themselves, they can accept such authorities as freely recognised. But these sports associations, to produce their own effects, must be absolutely intransigent on the point of athletes' honour and dignity. No compromises. Whoever has departed from the rules, lied, swindled, or mistreated his adversary must be suspended. Only in this way, as Father Didon declared, " sports and Olympism can help to struggle against the creation of the rubberized consciences that the politics and materialism of our age tend unfortunately to develop, since if you don't act disinterestedly, it means that you are inclined to accept compromises, the latter being nearly always a strain on the conscience. " Equal opportunities among players, fair refereeing of competitions, fair-play by winners and losers— it all requires the practice of the virtue of justice. In our " civilized " life, which is facing the risk of being undermined by pleasure and violence at the same time, sports must continuously recover their ideal of a real human promotion and brotherhood among all people without exceptions.



Nowadays, after about one hundred years of existence and influence on the world, Olympism still shares and complies with these very principles. Sports must help to form enlightened men and women capable of taking initiatives. Sports lovers should give everybody an example of fair-play, loyalty, and respect not only for the authority of people they have themselves elected, but for their adversaries as well We are convinced that sports, when organized according to Olympic principles, can develop some human values greatly appreciable by all men and women, while fostering peaceful relationships of esteem among people, in a field where all oppositions must give way to peaceful emulation.

However, all that we have so far stated could not help to achieve the full cultural education of man and the aims of the Olympic Movement if, at the same time, we failed to ask ourselves about the deeper meaning of harmony between culture and sports. Although the Olympic Movement has greatly contributed to the progress of sports, it is not always easy to ensure that sports are really practised

according to basic Olympic principles and to realize such an harmony in practice.

From a moral point of view sports can be controversial if they entail excessive risks or competitors' will to wound adversaries. They can be controversial as well in the case of certain persons who subordinate everything to sports, which thus become their main concern and their only reason for existence, leading to an over-glorification of the body. In some particular cases and with certain persons sports can become morally controversial if they lead to unbridled ambition lacking all measure. Certainly Olympism is in favour of sound ambition and competition, but we must never forget that we are essentially an educational and humanist movement whose aim is not to develop, especially among young people, an excessive and exaggerated desire to achieve honours and power.

Sports should help to teach and develop virtues within people who practise and organize them. So, for instance, it should help to develop courage in sportsmen, by training them in fighting to overcome difficulties, rather than yielding to adversities, troubles, or sorrow; moderation, by teaching them the importance of self-control and sense of order; justice, by asking them to act with loyalty and fair-play with respect to others, as well as with a sense of duty with respect to their clubs or teams; modesty, by teaching them to evaluate their own virtues and qualities in an objective and realistic way, when comparing themselves with others.

We have already mentioned the olympic motto " Citius Altius Fortius. " The Olympic Movement has a second motto: " What's important in life is not triumph, but combat; the essential thing is not to have won, but to have fought well. " During a church-service officiated in July 1908 in the London Cathedral of Saint Paul on the occasion of the IVth Olympic Games, at which athletes and officials were present, the Bishop of Pennsylvania uttered in his sermon the following sentence, that immediately attained Pierre de Coubertin's admiration: " In the Olympic Games to win is not so important as to have struggled-well. " Some days later, in the delivering of a speech, the Olympic Games' renewer mentioned the Bishop as the author of the idea, and declared that: " At the Olympic Games it's not so important to win but to partecipate, because in life it's not so essential to conquer as to have put up a good fight. " Coubertin is the author of the second statement. The final version of the motto, which is the first that I have mentioned, was definitively framed in 1936.

The Olympic Movement has engaged in a struggle against doping since it is the very negation of sports and of their role, as we intend it. Doping in sports means the utilization of drugs aimed at artificially improving, with a fradulent intent, the results of a competition. It is a transgression, a breach of a rule, or of the ordinary and natural way of doing things, a breach in the olympic democratic principle of equal opportunities in competitive sports practice. The athlete who makes use of drugs to improve his efficiency commits a whole series of acts which infringe upon and break certain principles. First of all, he destroys his health and life, which are the most precious material goods he has. Doping can be synonymous with death. To make use of drugs means to die physically, as is shown by the sad accidents we see so often. It means to die even psychologically because of the irreversible behaviour alterations caused by doping. Whoever accepts doping is a swindler of sports success benefiting from the support of some " scientists " who breach their oath and the ethics they committed themselves to honour.

Olympic Movement is aware of the fact that all the ostentation of glory and money which surrounds highly competitive sports has led to distortions that are to be opposed. The essence of sports is play, and Olympic sports have to prepare the athlete to accept defeat with no bitterness and triumph with no overglorification and vanity.

By tradition customs acquired through the practice of sports have assisted athletes in their ordinary life. It is necessary to do our best so that high-level sportsmen do not come to competition with their minds clouded with success at all costs. Such success can generate violence and lacks any content of hu-





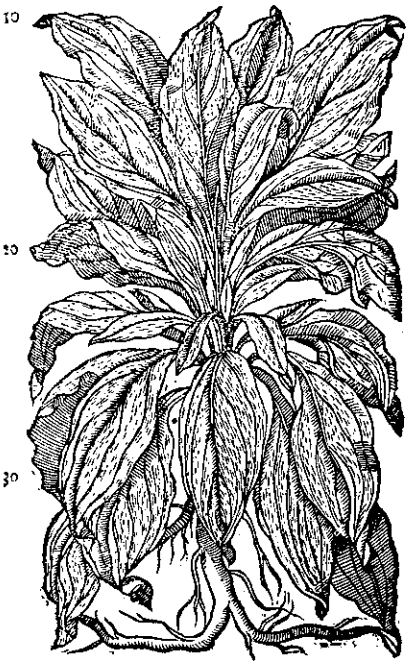
manism. The huge amounts which are at stake and the sociological environment in which distorted sports are developed induce athletes to try doping, even if they are fully aware of the serious risk they run.

Obsession with success turns into a martyrdom under pressure from trainers, managers, and whole countries which call for some results. At root the problem comes from the fact that there is too much money and glory for a simple victory which should represent only the outcome of a game. In such an environment sportsmen are ready to take any possible risk, ranging from severe sanctions to the danger of death, even if the latter depends only on a chronometer. It is this excess of ambition in distorted high competition sports that makes it hard to eliminate the problem of doping.

What's more, the seductive power of records, together with the huge economic benefits, begins also to attract a number of medium-level sportsmen.

The Olympic Movement's inspiring principles rest on justice, democracy, equality, and tolerance. The International Olympic Committee began the struggle against doping on a world scale. We have recourse to some sanctions if necessary, but we are not a tribunal, and even if we enforce our rules, we feel that a sound education is the only way of struggling effectively against doping. Means of repression against social deviations are necessary as corrective factors and emergency measures, but their scope is limited. A suitable education of individuals is the only way to achieve relevant results, even if this is a slower method. We have worked out a full series of sanctions and educational measures to oppose such an ill. Their aim is not only to eliminate fraud from sports but also, and mainly, to safeguard health for a number of athletes who are often manipulated. It is an hard and complex struggle. The results will depend not only on severe repressive actions taken against transgression, but also and above all on educational and pedagogical measures as well as on campaigns promoted at all levels which will inform sportsmen and the public in general about the hateful fraud that is doping and the danger it represents for life.

CINOGLOSSA VOLGARE.



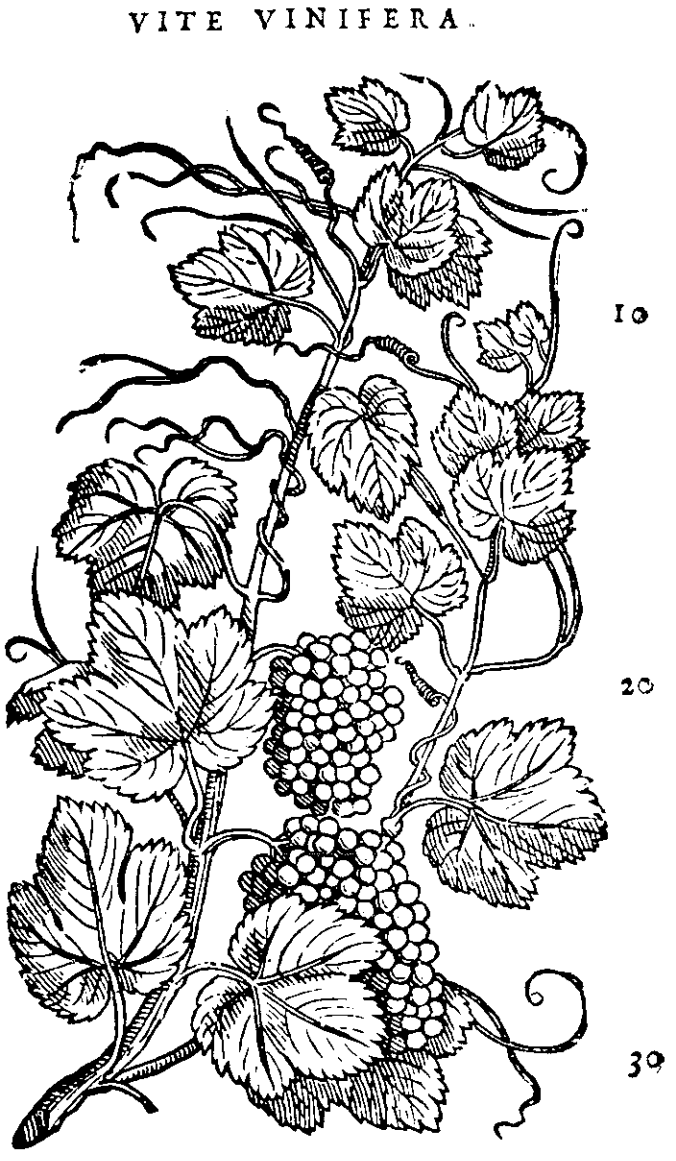
For some years now that the International Olympic Committee has begun to face realistically the problem of high performance sportsmen. Sports have progressed to such an extent that sportsmen, to be competitive at the highest level, must train intensively every day. Given this fact, it becomes necessary to offer athletes the chance to live, to find some means of subsistence, since only some amateurs are very rich. The extraordinary progress made by the sports of high performance and their great popularity are the main reasons for an indispensable though controlled introduction of marketing in Olympic sports. Olympism has to remain idealistic, but it must be lucid at the same time and acquire for sportsmen and the Olympic Movement part of the money yielded by sports by means of commercial contracts. This kind of marketing can and should contribute to the development of sound sports, whose role we have been describing so far. However, to realize it, we must never let the commercial spirit reign undisputed over sports activities. It is a permanent task that we must perform with responsibility, as we do not forget that our movement is essentially a humanist and educational movement. We must steadily develop sports' capacity to open young people's hearts to relations of cordial friendship and mutual respect by exercising them in forms of fair play and generous emulation and preserving them from any temptation of abandoning themselves to unfair or violent acts. We have to do our best to face a phenomenon that, together with doping, threatens to plunge into despair an increasing number of young human lives.

The Olympic Movement must also consider the danger of estrangement which threatens modern sports. At the very moment it becomes even more accessible and can contribute to a harmonious flourishing of youth and to physical and moral well-being of adults, it sometimes finds itself diverted from its true role. It must foster the pleasure of effort, self-control, and respect for others, instead of hero worship, performance at all costs, and na-

tional chauvinism. One of the cultural needs of every civilization is to contributing to placing the body at the service of the spirit.

Our mission is to place the Olympic Games, together with the considerable resources they yield and enthusiastic mass media coverage they attract, always at the disposal of the olympic Movement and of the search for excellence and solidarity. Our action must be strong, multiform, and coordinated. It must lead the Olympic Movement to its centenary, which will occur on the 23rd of June 1994. It must make effective the permanent and universal worth of the ideals we have inherited from Baron Pierre de Coubertin and by our predecessors, and contribute to creating, as far as possible, a better world.

JUAN ANTONIO SAMARANCH
President of the International Olympic Committee, Spain



PRIMO NEBIOLO

The Doping Problem

I would above all like to express my sentiments of sincere gratitude to the President of this conference, Cardinal Angelini, and to all those responsible for the organisation of this very noble initiative, for having invited me to participate. I am also grateful to be able to speak to you today both in the name of the Association of Summer Olympic International Federations and especially in the name of the International Amateur Athletic Federation. I stand here today as an ally to all those who are fighting the battle in favor of good health and safe practices for athletes from all sports disciplines. The theme which I am to address actually has a long history, but has painfully returned to public awareness only recently, that is, the problem of doping in sports.

The use of performance-enhancing drugs in sports —most commonly referred to as "doping"— has been known to exist for centuries. In modern times, the first substantiated report of doping came from one of the many early attempts to swim across the English Channel in 1865, where it was verified that stimulants were used to aid the attempt. Later, the use of stimulant drugs surfaced in a variety of sports, but particularly in professional cycling. It was not until a series of deaths occurred in cycling during the 1950's and 1960's that sports authorities reacted and took more decisive action to combat the misuse of drugs in sports. In 1968, the International Olympic Committee appointed a medical commission, and this was followed by the naming of a similar body in the IAAF in 1972. Both groups have since done extensive research into and analysis of drug use in sports. Other international sports federations have since followed suit.

During the period until the 1960s stimulants were the most common form of performance-enhancing drugs used by athletes. In this case, various forms of drugs were introduced in direct connection with the competition in question in order to temporarily stimulate the level of performance. Once the international sports authorities had determined a list of substances which were considered to be performance-enhancing, the next logical step to be taken was to introduce testing programmes at the time of the competitions to detect the use of what are now call "banned substances." Rules were established that any athlete found to have used stimulants or other similar substances should be disqualified from the competition and rendered ineligible for a fixed period of time. During the subsequent years, drug testing programmes at sports competitions expanded considerably and now cover a large number of major and minor international competitions. There is no doubt that these large scale drug testing programmes at sports competitions have made great strides towards fulfilling their preventive aims with respect to stimulants, as it is becoming more rare that athletes today are found to have used such drugs.

The problem of doping in sports became considerably more severe during the 1970s, when hormones and hormone-like substances such as androgenic-anabolic steroids were used by athletes in order to enhance training effects and thus, secondarily, sports performance. These substances have been in use since the 1960s, but only some 10 years later did it become obvious that the anabolic steroids were widely used. The basic problem related to the fact that these drugs were taken during training, when no control programme was operating. The athletes could simply stop taking the drugs some time before the competition in order eliminate any trace of the drug from the body and give a negative sample at the competition. Moreover, knowledge has increased during the last 5-10 years on the serious negative effects of the use of androgenic-anabolic steroids. Thus, sports were facing a completely new situation which required a more comprehensive and complex strategy other than simply testing at competitions.

For reasons mentioned earlier, international sports authorities have begun to adopt an anti-doping strategy which can be generally outlined with the following principles:

1. *Information and education* of athletes, coaches, and sports leaders on rules and regulations and on effects and, particularly, side effects of steroid use.

2. *Control Programmes* which operate not only at competitions but also during the training seasons.

3. *Research* to increase knowledge on the actual health risks of doping as well as research into new an better analytical methods for detecting doping.

4. *Rules and regulations* which will discourage athletes from taking doping agents.

This includes the suspension of athletes from competition after testing positive.

This new strategy, particularly with reference to out-of-competition testing, has been at times difficult to develop at an international level due to differences in varying laws and human rights regulations in some countries of the world. However, more and more international sports federations have begun to fully recognize the seriousness of drug misuse in sports performance and have therefore started to adopt the strategy outlined above.

In particular, the IAAF has developed an extensive educational programme, including the running of seminars and the production of a large amount of information material. The IAAF is, in fact, one of the only international sports federations that has a regular education programme for doctors both for testing procedures and for the detection of doping techniques. One of the area associations of the IAAF, the North and Central America and Caribbean Athletic Association, recently organised a special course in Puerto Rico for International Sampling Officers in which doctors from 31 different countries participated. It is hoped that other international sports bodies will follow this example.

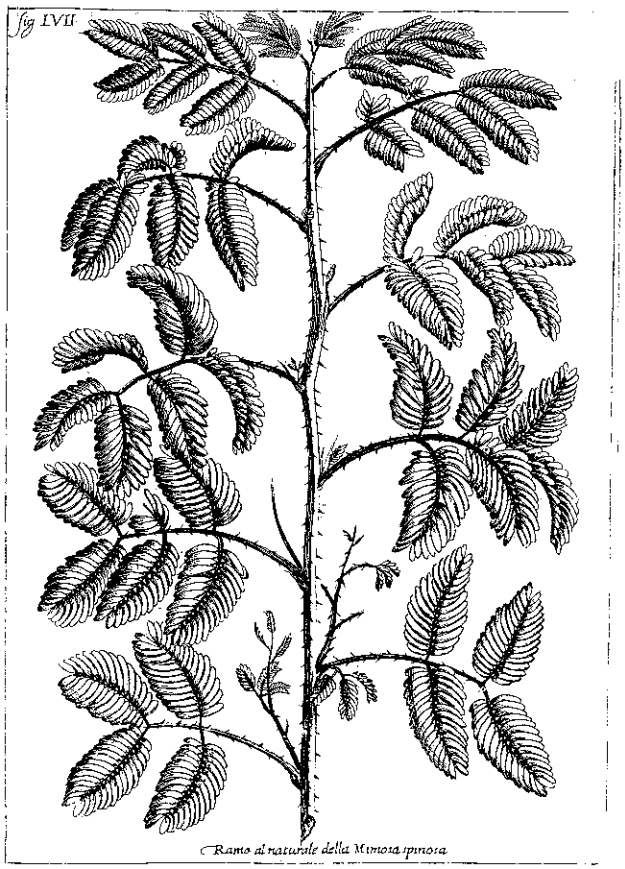
The IAAF testing programme has been expanded to encompass the off season, when IAAF " flying squads " travel unannounced from country to country throughout the world and randomly select athletes for testing. Athletes are given very little advance notice so that any substance can be detected before the athlete has the time to flush the prohibited agents from his system. Over the last year, the IAAF has continually increased its testing of top athletes both in and out of competition.

Most important, however, is the development of a clear strategy for the prevention of drug misuse at the domestic level. This has been acknowledged in Europe, where the members of the Council of the Europe Community have agreed on a convention which reflects the new strategy which I have spoken of here. The European member countries have been asked to investigate and decide upon stricter laws in order to limit the availability of doping agents, particularly steroids, and to develop educational and control programmes.

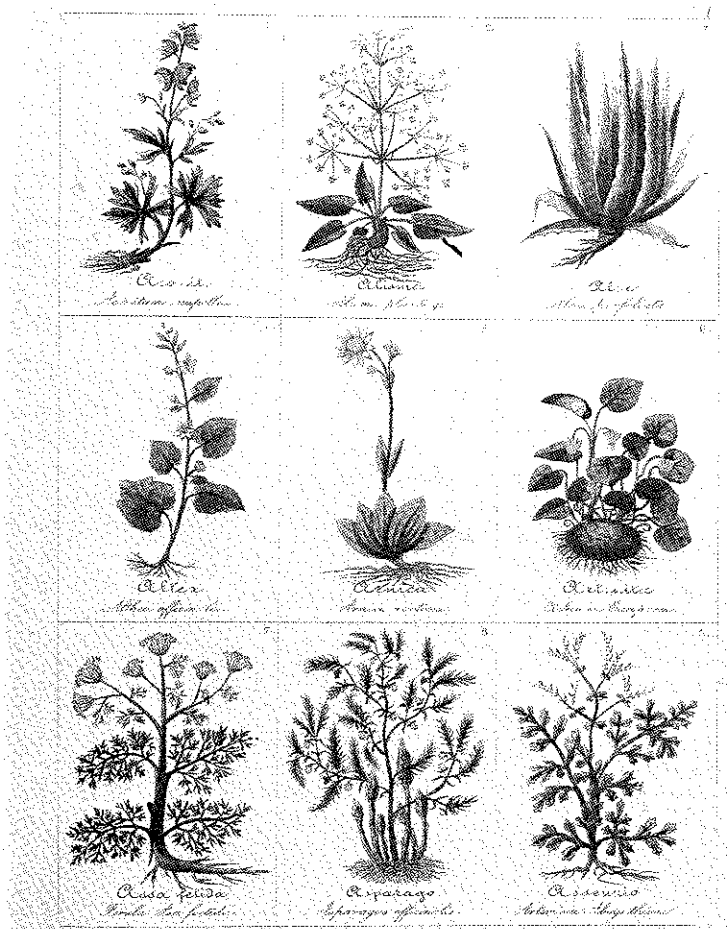
In summary, it can be said that sports governing bodies have generally taken a responsible and serious stand in the fight against the misuse of performance-enhancing drugs. Our primary goal in the implementation of the strategy which I have outlined is prevention rather than punishment. While it will always be important to seek out and condemn those athletes who cheat themselves and their sport, our aim must first and foremost be deterrence. If we can reach the youth of the world at an early stage, there will always be hope that we can educate and alert these future men and women athletes to the evils of drug misuse in sports.

At the same time, any athlete found cheating will be punished severely. This, too, is expected to act as a deterrent. It is alarming that the misuse of steroids has now also shown a tendency to spread to social groups outside sports. There are scientific data available today which show that androgenic-anabolic steroids are now being used by young people in order to become more muscular and thus, more " attractive " in the eyes of others. Studies have shown that many of the young steroid takers are not at all involved in competitive sport. Clearly, the misuse of steroids and other chemical substances is now a serious problem for society in general, in which this misuse is sometimes less controlled than in sports, where, you can see, strong action has been taken to prevent misuse.

Dr. PRIMO NEBIOLO
President of the Association of the International Olympic Federations



Round Table



Therapy and Psychosocial Rehabilitation

JOSE SARAIVA MARTINS

Values in Prevention and Rehabilitation

The phenomenon of drugs and alcoholism is certainly one of the most serious and alarming problems, and everybody feels involved in some way. It is a true epidemic, especially among young people. Among the great number of hypotheses in order to understand the alarming spread of drug addiction and alcohol misuse, we can mention curiosity, the search for immediate and new pleasure, the " wish to escape from anxiety, from disliked obligations, or passivity in view of a behaviour which is considered fashionable, the inability to resist imitation of propagandistic patterns given by the mass media " (AA.VV., *Droga: resistenza o resa?*, Edizione Rezza, Vicenza, 1983, p. 15).

Maybe for many people these " epidermal " motivations are the beginning of their trip to the world of drugs and alcohol. However, I am sure that the true causes are much more profound.

In fact, we find the desperate search for one's own identity, because people can't stand anymore the collective psychological flattening; or the equally desperate search for belonging to somebody or something because they want to get out of their solitude and loneliness; or they wish to discover a new existential dimension, because they do not accept any longer the daily drabness of life; or even those who, why not, try to satisfy their need for transcendence and the absolute, because people are not satisfied by the materialistic and immanentistic meaning of consumer society (cf. *o.c.*, pp. 15-16).

If we want to summarize these hypotheses in one idea, I believe that it is enough to say that it is an institutional crisis of values. Firstly, my paper will try to explain the importance of this crisis to us, and secondly, suggest some values for prevention and rehabilitation of young drug addicts and alcoholics.

1.1. An institutional crisis of values

Drug addiction, that is to say the abuse of drugs and alcohol, can be considered an extreme form of personal maladjustment and social disintegration. More and more sociologists believe that the causes must have institutional roots. Family, work, and school are corresponding less to their original function of being a place of education. [c.f. Stoetzel, J., *Les valeur du temps présent: une enquête européenne* P.U.F., Paris, 1983; Aa.Vv., *Giovani oggi. Indagine Iard sulla condizione giovanile in Italia*, Il Mulino, Bologna 1984].

Young people, not understood, without love, frustrated by family, school, or other environments, feel the need to escape and withdraw, to cut themselves off; or they take up agressive or rebellious attitudes. As a reaction to the reality they have to endure in the family, school, and elsewhere, they turn to drugs as a means to " survive " in view of the problems and frustrations which grow and multiply. They use drugs and alcohol to escape and get away from the reality of daily life and take refuge in a kind of artificial paradise [cf. Morgante, M., *I giovani e la droga*, Lettere Pastorali, 1978-1979, p. 1264].

After nine years of experience among drug addicts, the Abele group has come to this diagnosis: " Turning to drugs is one of the possible manifestations of personal and social maladjustment. Very often, the roots can be found in the family, where communication is not only very difficult, but impossible. The mother who works outside home jeopardizes the family's core. The home, instead of being a place in which to find mental and sentimental equilibrium, is becoming a place of tensions, misunderstandings, conflicts...and thus of deep personal and interpersonal problems [cf. Gruppo Abele, *Droga. In quale direzione?* Editrice AGA, Cuneo 1976, pp. 32-33].

As far as school is concerned, which should be the first experience of socialization outside the family, the Abele group thinks that it is becoming a place of social disintegration. Very often school itself points out the social-cultural inequalities of the students, and thus suggests a classdifferentiation. Furthermore, school is adapting to the demands of the economic system: its main job is not to form " persons " who are able to live in a civilized way, but to prepare " experts " who can enter the world of production. That is the reason why those who do not conform will be expelled and increase the number of the unemployed or, if all goes well, do the jobs that the great majority refuses (cf. Gruppo Abele, o.c., pp. 33-34). However, the crisis in the institutional values of family and school is working things in such a way that for many young people, the street starts to be home, school, and place of work. And there one easily becomes a victim of the drug market. " According to the Gallup Agency, more than 10 million students in the

Jnited States have already tried ome drugs. Everywhere in the vorld the drug phenomenon is uickly spreading among young eople. Even preadolescents make se of drugs, sometimes with lethal ffects. " (*L'Osservatore Romano*, 2.2.1978, p. 2)

In view of this alarming global eality, there is the urgent need to ind an answer to the following uestion: How can we free youth rom the slavery of drugs and alcoiol?

2. Some axiological proposals

I am convinced that the method f simple and categorical prohibion does not work; it is not nough to say: " you must not ake use of drugs or get drunk, beause you commit sin "; nor do the ethods of fear and alarm lead to atisfying results; it is not enough o shout: " you must not continue o use heroin or alcohol, because ou die, you abase yourself. " Conidering the typical psychological eaction to the forbidden and reats, we know that these means, ough meant as a deterrent, rather imulate curiosity and the wish to y out drugs at least once. Unforunately, for many of them this exerience is the first step towards the nnel of drug addiction or alcoholm. Since we exclude, thus, these threatening " proposals, we have o find different, provocative proosals to prevent the beginning or ie continuing of drug taking. Acording to recent studies on the vales of youth in Western societies, it youth who turns down the instiitions of family, school, and ork. Referring to these indicaons, I will start with the values of ie family, and later on treat those f school and work.

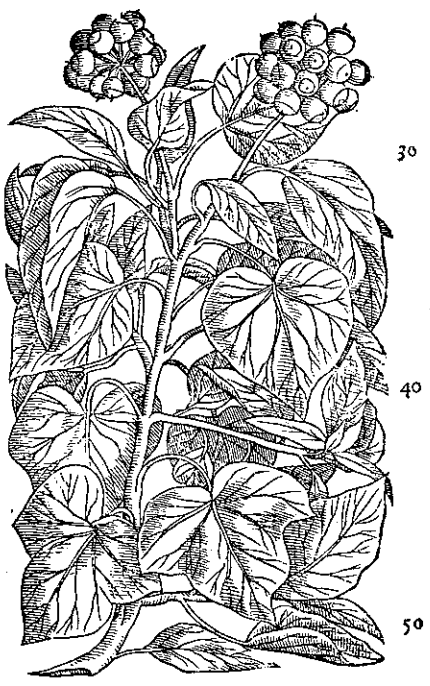
1. The values of family

Family is the social institution hich is considered to be the most portant one; in fact, " the only ie, for which one should sacrifice erything if necessary, because onin the family can we be accepted id treated like human beings, and ily family protects the developent of intense and gratifying efctive communication " (I. Vaccarini, *I valori giovanili nelle società occidentali*, in " Aggiornamenti sociali, " 9-10, 1984, p. 580).

It is interesting that this institution, accused of being the cause for the recourse to drugs and alcohol, is mentioned by the same group as the place and the protecting environment for personalizing development and school of socialization. Their motivations are not rooted in a superficial sentimentalism, but felt profoundly: they regard the human and moral values which only family is able to offer. " However, only in family one can find the necessary human warmth, serenity, dialogue, and understanding; therefore, family is the main source of sense and humanization of daily life " (*Ibidem*).

In 1975, the Committee for the Family showed the theological wealth of communication and participation in family and society. The family has a specific role of the humanization of society, because it is able to communicate its experience of love on a social level. . . . Due to its unity in the diversity of its members, family offers the opportunity to lead men to a true life of love. It is therefore the best school for an integral education of the human person (cf. B. Honings, *Un saggio di inculturazione della morale sessuale e matrimoniale*, Rome, PUU, 3 ed. 1988, pp. 24-25).

HEDERA ARBOREA



I want to point out that this multidimensional significance of family is especially due to some of its values, like " communication, conversation, genuineness, the opening to the universal, the defense of the person, and, particularly, of woman, the young, the child. " (Committee for the Family, *Il matrimonio-Sacramento, risposta della Chiesa agli appelli della famiglia*, Vatican City, 1975, p. 3).

The family as the preferential axiological proposal of young people has, thus, in its own institutional nature this capability of dialoguing and protecting on a personal and social level. Precisely because it is based on true interpersonal love, that is to say, " oblative " love, the daily relations of married and family life protect the respect for diversity, augment the need for communication and sharing and better the attention for mutual solidarity. They seek to give the exercise of authority and the active participation of each member a characterizing significance of serving (cf. B. Honings, *o.c.*, p. 25). From this point of view, the Council Fathers were completely right when they said: " The salvation of the person and of human and Christian society is strictly linked to a happy marriage and family life " (*GS*, 47) The personal progress and the eternal destiny of each member of the family depends upon this; upon this depends stability, peace, and prosperity of the family and the entire human society (cf. *GS*, 48).

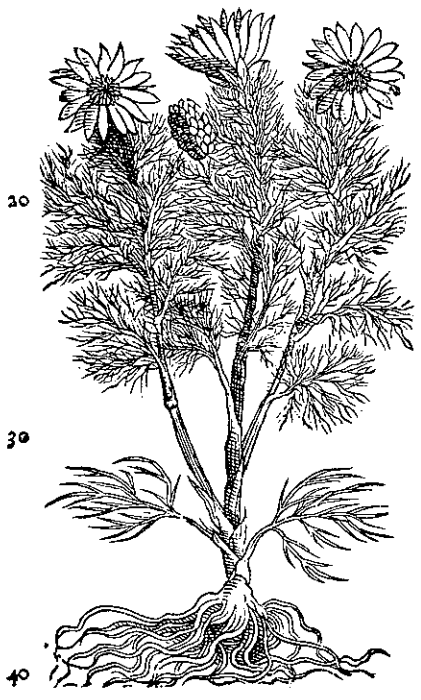
In view of these human, moral, and spiritual values of family, the drug and alcohol problem of youth is an accusation, and, at the same time, a summons. A charge, because as we have already said, the failure of its function as a place for education has taken many young people to the street, where they have found drugs and alcohol. It is a call to becoming what it should be: a place of communication, conversation, of integral encouragement of the person. Consequently, the first and main proposal as far as drugs and alcohol are concerned is that the family must rediscover its

being an image of God, who, in His deepest mystery is not solitude but a family. It is an alliance of persons called together by the Father, who asks the spouses for a sharing of life and love, that is, of community and communication, of serving and not domination. The peculiarity of the family is the mutual devotion of its members, realizing the full development of the four basic relations of a person: marriage, fatherhood-motherhood, filiation, brotherhood. In a word, family life reproduces and shares the four faces of human love (cf. Puebla, *Comunione e partecipazione*, edited by P. Vanzan, Ed. AVE, Rome 1979, p. 620, nn. 3133-3134). In this sense, family is the first and main school for responsibility for daily life. The behaviour of the parents is decisive; the children observe, compare, and learn to act; consequently, distinguishing between good and bad, living with and in the midst of their parents and, in second place, with others. In families where these personalizing and socializing relations work, drugs will probably be no problem; if it should happen for other reasons, the problem will be solved completely, being a phase of crisis which might help to mature.

At this point I would like to suggest a solution for the alarming phenomenon of drug addiction. Wouldn't it be possible for those numerous families who are able to comply with their original institutional function to be a kind of "adoptive family" for the drug addict or the alcoholic? Of course, I will not, of course, go into the aid given by the competent authorities. But if a family functions, it is, according to the young people, the environment which they prefer. I refer to the result of a questionnaire widely discussed at the 3rd Conference of the Chaplains of the Academies, convened in Rome, 21-27 February 1985. The question was: "What are the values, the projects, the aims which make life beautiful and are for you the goal of life? 5,935 (90%) out of 6,500 answered that question. In the first place of preferential values: the family (82.4%), then work (71.2%), the girl-friend-friendship (63.3%). The great majority declares family to be the first essential value. This means that the young people have not only not lost their faith in family, but they expect from family the answer to their problems to get ahead in life. I think that those who work for solutions for drug addicts and alcoholics should reflect very much on the values of the social institution of divine origin represented by the family.

2.2. The values of school

One drug expert writes: "Educators, teachers, and learned men should collaborate in order to transform school into a community for the maturation and formation of the human being. Education does not mean the transmission of knowledge; it should, rather, free the conscience from fixed ideas, in a way that the decisions can be made responsibly and life projects might be formed. ... Should it not be the task of the teacher, the educator, to help the adolescent in seeing the obstacles for sound growing-up, and to help him to overcome these hindrances without dominating his decisions? (M. Picchi, *Fenomeno della tossicodipendenza*, in AA.VV., *Droga: resistenza o resa*, pp. 19-20).



It is certainly true that scholastic education cannot be restricted to transmitting knowledge, as it cannot be limited to freeing the conscience from fixed ideas. In order to take responsible decisions and to create projects for life, you need much more. The school has to "cultivate" continuously the intellectual, creative, and aesthetic capabilities of men, developing reason, will, affectivity, and sense of values. It must favour the right attitudes and wise behaviour; introduce to the cultural heritage of previous generations, prepare for professional life, and foster friendship between students of different characters and conditions, leading them to mutual understanding" (Congregation for Catholic Education, *Il laico cattolico testimone della fede nella scuola*, n. 12).

The school must be devoted to the formation of the whole person, especially by fostering the sense of values and their importance, and develop the capability to interlace true human relationships. This is what the young people of the numerous studies on values wanted. School "is apreciated, if and when it cultivates the personal character of the student, permitting him to interlace important human relations and preserving his ideological and psychological autonomy" (I. Vaccarini, *I valori giovanili nelle società occidentali*, in "Aggiornamenti Sociali," 9-10, 1984, p. 582). Therefore, as far as drug addiction and alcoholism among people are concerned, school as an institution and its pedagogical task are seriously required by the young. If the drug addict and the alcoholic is a disintegrated individual, personally and socially maladjusted, school has obviously failed to exert its social function.

This judgement is, of course, linked to the fact that the number of drug addicts and alcoholics is growing rapidly. Therefore, school has to examine its conscience; and here I wish to address particularly the educators: go and form strong and responsible personalities, able to make free and right decisions. You have to understand that the aim of genuine education is the humanization and personalization of youth. One of the conclusions of the Latin American Bishops' Con-

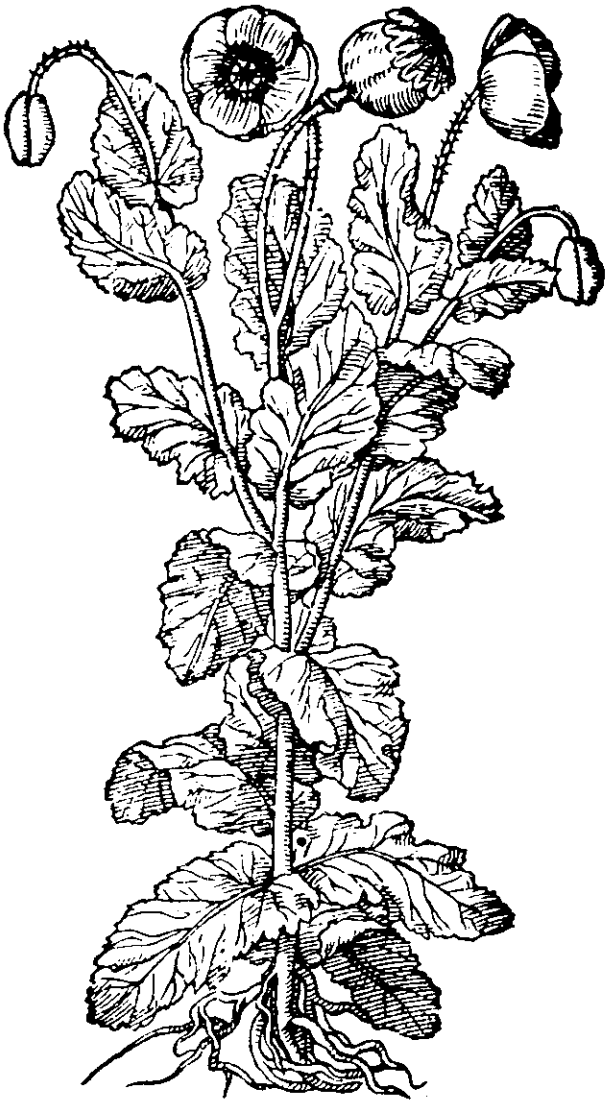
ference may be useful here: " Education humanizes and personalizes man if it is able to develop his thoughts and freedom, producing comprehension and communion with reality, by which man humanizes his own world, creates culture, transforms society, and frames history (Puebla, *Comunione e partecipazione*, edited by P. Vanzan, AVE, 1979, n. 3).

Youth of today needs the great values of freedom and love; freedom to be able to choose with their true conscience their personal and social responsibility; love in order to share happiness and hopes, sadness and anxieties of today's men. This is necessary to live the virtue of solidarity, the interior power required by the present global situation.

Regarding this, the Second Vatican Council already said: " It is a sacred task for everybody to observe social obligations, one of the main duties of modern man. In fact, the more our world is unified, the more the obligations of men overcome limited groups, spreading slowly over the whole world. And this can only happen if the individual man and his groups develop moral and social values and spread them to society, creating in this way really new men, creators of a new humanity, with the necessary help of divine grace.

I am sure that youth of today needs to be prodded by these ideals full of love for others and God, in order to feel involved. This is the reason why family and school have to take up again their educational function. If they know that the drug and alcohol problem depends to a great degree on them, they know that they are the best environment to combat and defeat it.

Most Rev. JOSE SARAIVA MARTINS
Secretary of the Congregation for Catholic Education



JEROME JAFFE

Role of Pharmacological Therapy

During the nineteenth century, excessive use of alcohol and drugs such as opiates and cocaine began to be seen more as medical disorders than as moral failings and thus as the appropriate concern of the medical profession. Coincident with this change in perspective, the medical profession began to explore the use of available medications to treat these disorders. These early efforts were often based on trial and error and erroneous theories of how alcohol and other drugs affect the biology of the users. This sometimes led to treatments that were useless and occasionally harmful. However, in the past half century there has been a dramatic increase in knowledge about the multiple processes which contribute to patterns of compulsive drug use and to relapse after a period of abstinence. This knowledge has provided a better foundation for rational efforts to discover and develop new agents for treating individuals who are dependent on drugs. The heavy social costs associated with such drug use, including illnesses, accidents, lost productivity, crime, and, more recently, the spread of HIV infection have spurred an accelerated effort to develop such new medications.

Multiple targets

The processes that contribute to the initiation and perpetuation of drug use are complex. For some of the drugs, one significant element is the development of physical dependence, so that soon after the drug is stopped, there are disturbing physical changes and symptoms (the acute withdrawal syndrome). But acute withdrawal is only one element among many that may make it difficult to stop taking certain drugs. In the case of alcohol and opioid drugs, and probably other drug categories as well, the acute withdrawal syndrome is followed by more subtle but still measurable abnormalities that may persist for weeks or months (the protracted withdrawal syndrome). Pharmacologic agents which might correct the abnormalities underlying protracted withdrawal are one target for current research.

It is now clear that withdrawal symptoms, as well as euphoria evoked by drugs, can become linked through the learning process to cues in the environment as well as to emotions. Because of this learning process, weeks or months after drug use has stopped environmental cues or an emotion may evoke the memory of the former drug-induced euphoria or a state of withdrawal (conditioned withdrawal), and a craving to use the drug again. Much recent research has focused on ways to prevent relapse by teaching former drug users how to cope with such periodic increases in craving, and on the development of agents that can attenuate the craving, and thereby prevent or reduce the likelihood of relapse.

In addition to seeking medications that could be used to treat acute and protracted abstinence and to help prevent relapse, scientists have also been searching for pharmacologic agents that can reverse drug intoxication, ameliorate the damage that many drugs do to body organs, and treat the psychiatric disorders that frequently antedate or complicate drug dependence.

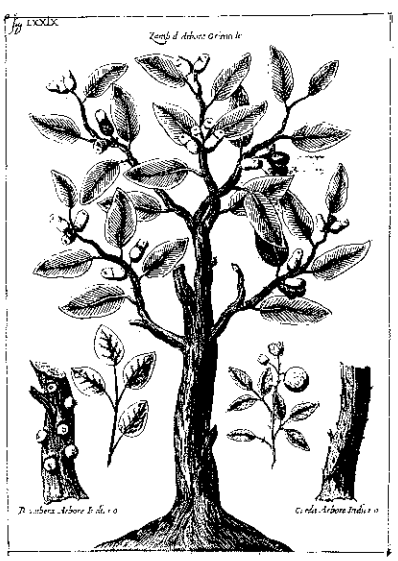
The Current Status

Much progress has been made in some of these areas. There is now a good inventory of medications that can ameliorate acute withdrawal syndromes, especially those associated with cessation of alcohol, opioids such as heroin, sedatives, and nicotine. For example, benzodiazepines are now the main agents used to treat acute alcohol withdrawal, but there are several other categories of drugs that are also safe and effective (8). Longer-acting opioids, such as methadone, are the primary agents used to ameliorate opioid withdrawal. However, new pharmacological agents which have no abuse potential themselves have been discovered to be useful for managing the opioid withdrawal syndrome. For example, clonidine, originally developed to treat high blood pressure, can substantially reduce many of the signs and symptoms of acute opioid withdrawal, and when used in combination with naltrexone (an opioid antagonist), it can shorten to a few days the time required to detoxify opioid addicts (6). Nicotine itself, in the form of nicotine gum or skin patches, is the most thoroughly studied agent for helping people through the withdrawal syndrome that frequently occurs when smokers give up tobacco. Some researchers have found that antidepressant drugs are useful for treating those smokers who get depressed when they try to quit (2) (9). In general, most acute withdrawal syndromes can be managed safely and relatively quickly.

While the search for even better agents for acute withdrawal contin-

ues, a more central concern of most clinicians and researchers is discovering and learning how best to use pharmacologic agents that will prevent or reduce the probability of relapse. Even in this area there has been some progress. Since the introduction, in the 1960's, of methadone maintenance for treating intravenous heroin addiction, evidence of its efficacy has continued to accumulate (4). Other agents with properties similar to those of methadone have also been tested. L-alpha-acetylmethadol (L-AAM), a long-acting methadone-like agent, was first used to treat heroin dependence in the 1960's and was shown in the next decade to be at least as effective as the dosage of methadone now used by many treatment programs. (However, L-AMM has not yet been approved for general use in the United States). At the present time, buprenorphine, a partial opioid agonist approved and used as an analgesic in many countries, is the most promising alternative to methadone for treating heroin addiction. It has the advantage of being less likely than methadone to be associated with toxic drug overdose. Also, the withdrawal syndrome associated with its cessation is significantly less distressing than it is for other opioids, which holds out the hope that patients treated with buprenorphine will find it easier to achieve abstinence eventually (3). Its disadvantages are that it is more costly than methadone; like methadone, it has opioid actions, so that its use requires special controls; and there are many critics who will view it as they do methadone—the substitution of one form of dependence for another. No new pharmacologic agents that are intended to ameliorate illicit opioid use or to prevent relapse after opioid withdrawal, which do not themselves produce dependence, have gained widespread acceptance. In theory, naltrexone, an opioid blocking agent, should be useful in preventing relapse. It has been approved for such use in the United States. In most countries where it has been tried, however, securing patient acceptance and compliance has remained a major stumbling block to its use in treatment.

More than a dozen potential therapeutic agents from a number of pharmacological categories have been explored clinically for treating cocaine dependence. All of them were originally developed to treat other medical problems. They include desipramine, imipramine, and fluoxetine, all of which are used to treat depression; lithium, used for manic-depressive disorder; methylphenidate, used for attention deficit disorder; amantadine, a drug originally developed to treat viral infections; bromocriptine, used for endocrine problems; flupenthixol, used for treating schizophrenia; calcium channel blockers, used for cardiac problems; and carbamazepine, used for epilepsy. A few of these, including desipramine, buprenorphine, carbamazepine, and fluoxetine, have been evaluated in double-blind studies of cocaine-abusing or dependent patients. While desipramine has been shown to be of significant value in one such study, other studies, while not precisely comparable, have not replicated the positive findings. It is fair to say that for cocaine dependence there are no medications that have robust and reliable effects on reducing cocaine use or preventing relapse to cocaine after detoxification (5).



In addition to its capacity to suppress the acute tobacco withdrawal syndrome, nicotine delivered in chewing gum or a skin patch seems to ameliorate some aspects of the more protracted abstinence that follows the acute syndrome and can decrease the likelihood of relapse to cigarette smoking (2) (9).

Several new approaches to attenuating alcohol use and preventing relapse following alcohol withdrawal are attracting the attention of researchers. In several studies, alcoholics and heavy drinkers given medications which act by modifying the neurotrasmitter serotonin, originally developed for treating depression, decreased their alcohol consumption (8). In two as yet unpublished studies, alcoholics who were given naltrexone, an opioid antagonist, were significantly less likely to relapse after detoxification. Perhaps the most widely used agent for treating alcoholism is disulfiram, which interferes with the metabolism of alcohol, causing a very distressing reaction when even a small amount of alcohol is ingested. However, patients who are motivated to use disulfiram reliably would probably have a good prognosis anyway, while many of those most likely to relapse refuse to take disulfiram. Several studies seem to indicate that when ingestion of the medicine is supervised or made a requirement for obtaining some benefit, disulfiram can act as a useful deterrent to alcohol use and thereby decrease the likelihood of relapse (8) (10).

Good treatment requires more than a medication

There are important interactions between non-pharmacologic and pharmacologic factors in determining treatment outcome. A therapeutic agent that is marginally effective when it is given in the context of a treatment program that provides minimal psychological and social support may be significantly more effective when more support is provided. This has been demonstrated quite dramatically by recent studies of methadone maintenance treatment programs in which there were significant differences in the

levels of social and psychological support provided to the patients. A study of almost 400 men treated in six different programs in three cities in the United States found that, on average, after several months in treatment intravenous heroin use declined sharply. But there were wide differences among programs in improvement rates. In the most effective program, 90% of patients had successfully avoided using heroin intravenously during the month prior to the interview. In the least effective program, only 43% had been similarly successful. The major factors that accounted for these differences were the dose of methadone and the quality of the program, and the quality of the program was measured by such characteristics as effective program leadership, quality of counselors, and the range of services offered. The authors concluded that the competence and skill of the staff make a profound difference (1). In another study, at the University of Pennsylvania, heroin addicts who had come for methadone maintenance treatment were randomly assigned to three different groups providing three different levels of social and psychological support along with the medication. All patients were given the same dose of methadone, and their urine was regularly tested for the presence of drugs. One group received only emergency or crisis counseling services; another got emergency and regularly scheduled counseling; the third group got emergency and regular counseling, as well as employment counseling, family therapy, and psychiatric care; patients receiving more services were experiencing better outcomes. Although heroin use decreased substantially in all groups, the decrease was greater when there was regular counseling, and even greater when more comprehensive services were provided. Comprehensive services were also found to have similarly beneficial effects on reducing cocaine use, needle sharing, and unemployment (7).

Even more striking are the interactions between nicotine gum or nicotine patches and the psychological treatment context in which these agents are used. If nicotine in either form is used without any significant program aimed at psychological support or behavioral change, its impact on smoking behvior is minimal. But when it is used in conjunction with behavioral and psychological support, it can double the number of people who are able to stop smoking and to stay off cigarettes for a year (2) (9).

It should be both a comfort and a challenge to clinicians to see evidence that clinical competence makes so large a difference in treatment outcome. It should also be a challenge for those involved with public policy to observe how much more can be accomplished when programs using pharmacological agents are able to deliver high quality psychological and social services.

The role of pharmacological agents

Despite their availability, I do not believe that pharmacological treatment will soon become the dominant approach to the treatment of drug dependence. There are several reasons for this. In many instances, the degree of dependence is not severe. Individuals are able to stop on their own, or may do so with only support from self-help groups. Also, many groups in society devoted to helping drug dependent people emphasize psychological, social, and spiritual dimensions in treating drug dependence, and either minimize or exclude the use of pharmacological treatment in dealing with those individuals who seek help. In may instances this minimization is based on the view that since the drug user needs to accept that his or her major problems are spiritual and psychological, any use of medication dilutes that message. The underutilization of pharmacological interventions on this basis is unfortunate. Many individuals are unwilling to commit themselves to treatments that rely exclusively on spiritual or psychological approaches. Still others try such approaches but, for a variety of reasons, they are not able to overcome their problems. Others may have serious psychiatric disorders that interfere with their participation in spiritually based approaches, but that could be controlled by available psychiatric medications. The use of pharmacological agents in any of these situations could facilitate subsequent participation in therapeutic programs built around non-pharmacological approaches. There is no fundamental incompatibility between treatments focusing on psychological or spiritual approaches and the simultaneous use of pharmacological agents to help individuals cope with drug dependence or with associated psychiatric disorders. It would benefit the drug dependent people whom all disciplines (medical, spiritual, psychological) seek to help if we could find ways to make our distinct contributions synergistic rather than antagonistic. In some societies, medical interventions may be minimized because the cost of involving the medical profession is prohibitively high. This, too, is unfortunate, but it should not be a problem that is beyond the capacity of people of good will to solve.



Some moral and ethical issues

There are several available therapeutic agents that ought to be useful in treating drug and alcohol dependence, but because patients do

not take them reliably, they have not made any great impact on the medical approaches to treating drug dependence. These include naltrexone, which blocks the effects of heroin, and disulfiram, which is used to deter ingestion of alcohol. Yet, these drugs are useful in special situations, such as when they are given under supervision. The development of even more effective pharmacological treatments will raise difficult ethical and moral problems. In many societies, driving under the influence of alcohol or using illicit drugs can be punished by imprisonment. Sometimes offenders are offered the option of spending time in residential drug treatments programs as an alternative to prison. Yet, criminal justice systems typically are reluctant to allow individuals to participate in treatment programs that include pharmacological treatment, and the notion of requiring individuals to take a medication is uncommon. Given that the use of therapeutic pharmacological agents can be shown to substantially reduce the adverse effects of drug dependence, society might well ask whether there might be circumstances in which individuals should be required to take such medications. Also, as more effective pharmacological treatments are developed, society might need to consider whether treatment programs that utilize psychological approaches exclusively ought to be required to inform individuals who seek help about the availability of alternative pharmacologically based treatments. I have no easy answers to these moral and ethical questions, but I can think of no better forum than this one to point out that these questions need answers.

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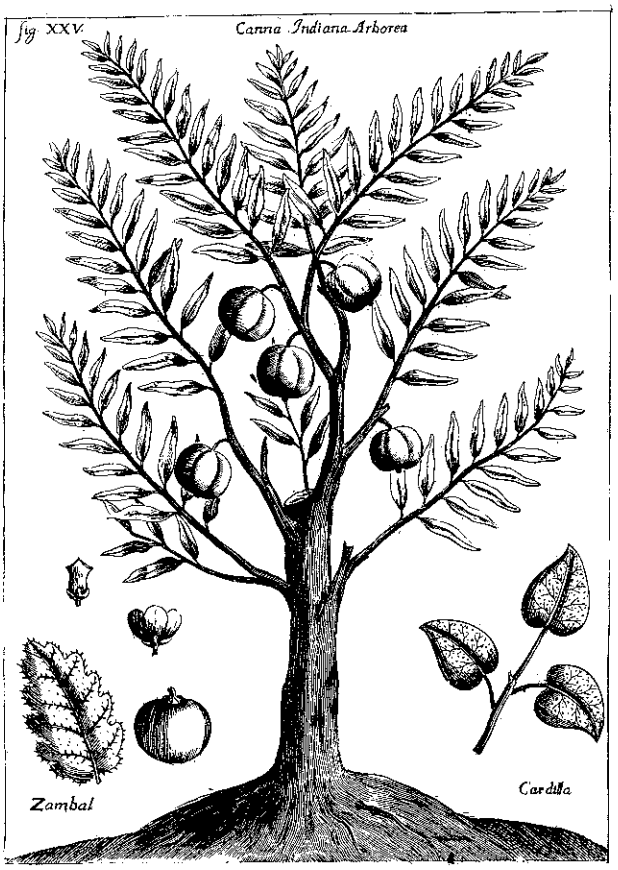
Bibliography

1. BALL, J.C., ROSS, A. *The Effectiveness of Methadone Maintenance Treatment* New York: Springer-Verlag, 1991
2. BENOWITZ, N.L. Pharmacologic aspects of cigarette smoking and nicotine addiction. *N. Engl. J. Med.* 319, 1318-1331, 1988
3. FUDALA, P.J., JAFFE, J.H., DAX, E.M., JOHNSON, R.E. Use of buprenorphine in the treatment of opioid addiction II. Effects of daily and alternate-day administration and abrupt withdrawal *Clin. Pharmacol. Ther* 47: 525-534, 1990.
4. GERSTEIN, D.R., HARWOOD, H.J., (eds.) *Treating Drug Problems*, Volume I. Washington, D.C.: National Academy Press, 1990.
5. JAFFE, J.H. Pharmacological treatment of opioid and cocaine dependence. In: MELTZER, J.Y., NEROZZI, D., (eds), *Current Practices and Future Developments in the Pharmacotherapy of Mental Disorders*. Amsterdam: Elsevier, 1991
6. JAFFE, J.H., KLEBER, H.D. Opioids: general issues and detoxification In: *Treatments of Psychiatric Disorders*. Washington, D.C.: American Psychiatric Association, 1989, pp. 1309-1331.
7. MCLELLAN, A.T., O'BRIEN, C.P., METZGER, D., ALTERMAN, A.I., CORNISH, J., URSCHEL, H. Is substance abuse treatment effective? In: O'BRIEN, C.P., JAFFE, J.H. (eds.), *Advances in Understanding the Addictive States*. New York: Raven Press, 1991.
8. SELLERS, E.M., ROMACH, M.K. Pharmacotherapy of alcohol and drug problems. *Drug and alcohol rev.* 10, 1991, 215-114.
9. Surgeon General (Office of Smoking Health, eds.), *The Health Consequences of Smoking. Nicotine Addiction*. Department of Health and Human Services Publication No. (CDC) 88-8406. Washington, D.C.: U.S. Government Printing Office, 1988.
10. WRIGHT, C., MOORE, R.D. Disulfiram treatment of alcoholism. *Am. J. Med.* 88, 1990, 647-655



WANDA POLTAWSKA

Role of Psychotherapy

Introduction

Psychotherapy is being used more and more in contemporary psychiatry. Although some authors are rather sceptical concerning its effects (Hebb, Eyseneck), it has become more and more manifest that the problems with which people come to a psychiatrist cannot, in general, be solved by pharmacotherapy alone. Personality disturbances, the immaturity of personality, psychoneuroses, attitude disturbances, etc. are in need of psychotherapeutical treatment.

It is clear, however, that psychotherapy cannot be applied, so to speak, out of the void; it needs a conception of man as its basis. From a Christian point of view, the schools of psychotherapy based on psychoanalysis seem to be unacceptable because the ideas of Freud, Adler, and Jung do not, according to the Christian vision of man, render justice to the full wealth of the human reality. As Victor Frankl remarks,[1] the contemporary biological, psychological, and sociological theories do not furnish a full, adequate conception of man; on the contrary, they falsify him by reducing the human person to only one level of his multistratified reality. It is precisely psychopathology which, by diagnosing desintegration of a person, seems to treat man as a complex whole in need of integration.

Frankl is certainly right when he stresses that a psychotherapist adapts his method to his own personality;[2] and this explains the multiplicity of methods in psychotherapy.

My own interest in psychotherapy grew from the practical need of a way of proceeding in a consulting centre for the young. A psychiatrist often feels helpless when faced with the multifarious psychopathological problems of youth. The method of psychotherapy adopted by me and called " objectifying psychotherapy " grew from two motives: first, from the needs of the patients in a consulting centre for the young and, second, from the inadequacy of the methods generally used. The very presuppositions of those methods seemed to exclude the possibility of achieving the desired results. Objectifying psychotherapy has proved efficacious, but, at the beginning, it lacked a full theoretical basis. It had been conceived rather intuitively and based on the commonsense idea that the task of psychotherapy was to help the patient to find his proper place in life; we may even say: his vocation. This is a point of view radically different from that of a psychotherapy which aims just at calming the patient, at reducing any tensions that may occur in his life.

1. " Objectifying " Psychotherapy

This not being the place for a detailed description of the method, I only want to explain briefly what objectifying psychotherapy consists in and what the main differences are from other methods. The persons treated were, generally speaking, described as socially maladjusted, i.e., in conflict with their environment (flight from home and from school, suicide attempts). Thus, the goal was " socialization, " restoring to them the desire to live in society. It demanded changing the person as well as his attitude towards the world.

2. Patient Selection

Persons with psychosis in need of hospitalization were excluded, as well as the mentally retarded, who are not capable of conscious reflection. The treatment was applied mainly at a consulting centre and concerned young people with the diagnosis of neurosis, psychoneurosis, emotional and personality disturbances, immature personality, psychopathy.

3. Accepted Presuppositions

The main presuppositions on which the treatment was based were that the patient's behaviour could be changed, i.e., that a human person was able to direct his own conduct, but also that this change could be achieved not by imposing it on the patient (as in hypnosis or in directed psychotherapy), but by making him acknowledge a hierarchy of values. It turned out that such a change could not be achieved without the patient's active cooperation. Therefore, the concept of an " integration axis " was introduced—of a goal to which the patient's actions were directed. The treatment demanded a fully conscious engagement on the part of the patient, and the psychotherapist did not aim at his inconscious; therefore, the name of " objectifying psychotherapy " was chosen. The aim of the procedure was to help the patient to see himself and the world in as objective a way as possible and to adopt, by conscious

reflection, a suitable attitude towards himself and his milieu. This demanded not only an evaluation on the part of the patient of himself and of his world, but also a change in the patient: he was supposed to improve, to educate himself, and this was a point on which objectifying psychotherapy was essentially at variance with other methods of psychotherapy.

4. The Way of Proceeding

The stages of the procedure were as follows:

a) An analysis of the patient's situation in life which was meant not only as information for the doctor, but, above all, in order to achieve the patient's full orientation concerning his moral position.

b) An analysis of the patient's personality. During this period the patient was expected to improve his knowledge of himself. The topic of this analysis were not only the pathological symptoms, but, in the first place, the person's character.

c) Making the patient ascertain a hierarchy of values. At this stage, the patient was supposed to evaluate different elements and aspects of his life and, in the first place, to acknowledge the existence of values and to order them into a hierarchy.

d) The proper objectivization: the process of the evaluation of the patient and of his behaviour by himself, in accordance with the accepted hierarchy of values and, in consequence, with the reality of life

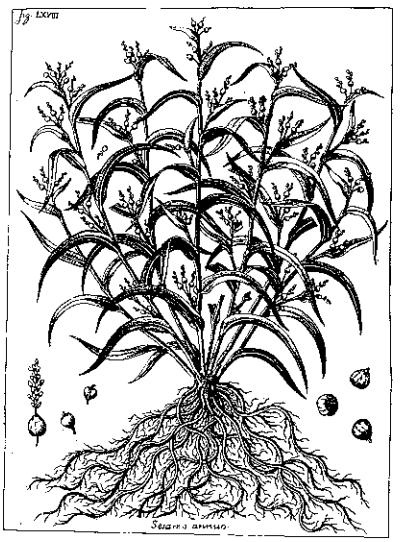
e) The period of changing of the patient's conduct by his own decisions concerning his future, his engagement in doing something for the others. At this period, an " axis of integration " turned out to be necessary, the choice of an intermediate goal of action which the patient accepted according to the hierarchy of values discovered by him.

f) The realization of the " objectivization " of the patient, the final stage of the treatment in which the patient became active and the psychotherapist helped him by removing some external obstacles etc.

g) The treatment's end. During the treatment there usually arose a particular relation of friendship between the therapist and the patient, a friendship which was the result of the doctor's active benevolence. The result of this friendship was a continuation of their contact; the patients usually came to see the psychotherapist in order to inform him about their life or to be advised about some important decisions, like the choice of profession or marriage.

The Practical Value of Karol Wojtyla's " The Acting Person " for " Objectifying Psychotherapy "

I was surprised when, on reading *The Acting Person*, I realized that this work furnished not only a theoretical basis for my objectifying psychotherapy, but also a detailed system of proceeding. A thorough analysis of the structure of the human person which I found in this book turned out to be very helpful for the practice of psychotherapy, precisely because it described in detail the process of the development of man and the way in which he could fully realize himself. It is not only true that the way to the human person's integration shown by Wojtyla is precisely what such a psychotherapy tried to realize; I also have to state that even the consecutive stages of the treatment have found their substantiation in the author's analyses. Although the work is not meant as a textbook of psychotherapy, it shows step by step how a man can become more and more human and in this way also shows the stages of a psychotherapeutic procedure: the transition from " mere activations " to fully conscious and responsible acts.



The biological maturation of young people has been quickened, but a maturation of the personality often does not go with it, and the number of immature persons has grown. The idea of integration through conscious, responsible action seems to show the right way out of the predicament. Its importance for education—connected, in particular, with a rehabilitation of self-education, which has been so often neglected in psychotherapy—cannot be overestimated. The simple truth that the quality of a human action passes to the action's subject seems to be self-evident and is corroborated by experience.

Thus, the idea of objectifying psychotherapy finds full support in Wojtyla's conception of man. Conceived as a complicated whole consisting of his body, mind, and soul, the human person is shown in this book as being able to achieve a full harmony of those elements, and it is precisely this goal of the integration of the person which gives psychotherapy its proper direction: man's integration through action.

In the light of Wojtyla's analyses we may also understand the characteristic shift of the modern thought on evil in relation to illness: the more mere " activations " there occur in man, activations caused by the growing number of different stimuli, the more difficult the person's integration becomes. When we understand that the quality of an action passes to the acting person, it also becomes clear that the fewer conscious, responsible actions a man performs, the more innerly determined and unfree he

feels. In this way " therapy " must, at the same time, give man a proper vision of himself.

The development of psychopathology has created diagnoses like " personality disturbances ", " immaturity ", " attitude disturbances, " etc. The number of these disturbances grows, causing therapeutic helplessness and ineffective polipragmasis: symptomatic treatment fails; we have to get to the causes. In this way, a philosophical treatise enables us to find the proper diagnosis and, at the same time, to grasp the etiology and the pathogenesis of the phenomena. The general, philosophical vision of man allows us to find the place where the pathological process arose.

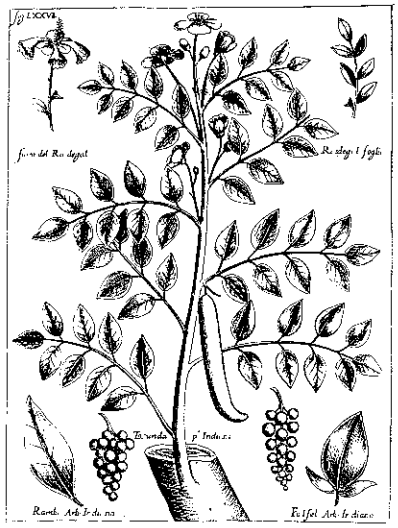
The psychiatrist's field of action is precisely the inner dimension of man. Psychopathology has taught us that, in order to become free, it is not enough to be conscious. Being conscious may go together with a lack of responsibility and of the ability to direct one's actions. A psychologically normal person must fulfill both criteria, accepted in psychiatry, and in particular in forensic psychiatry: he must be conscious and able to perform responsible actions. " Objectifying psychotherapy " aimed at making the patient fully conscious and responsible, but it did not, by itself, explain the reasons for this procedure. In its praxis it turned out that an integration of the patient may be achieved. " The Acting Person " shows why it is so and, besides giving the procedure a theoretical basis, it also furnishes important hints concerning the very praxis of it. The idea of " self-possession ", which presupposes self-rule and the fulfillment of a person through his moral action, teaches us the right way of approaching the patient (and, as may also be added, it gives positive argumentation in favour of any striving towards sanctity).

This conception may be particularly useful in the field of so-called sexual education by solving in a convincing and simple way the difficult problem of a right attitude in the realm of sexual experience. It shows the stages of the person's development and the role of consciousness, freedom, self-possession, and self-rule leading to self-fulfillment, thus teaching us how to work on the two levels of internal development and external cooperation with others. Wojtyla's conception allows us to delineate and substantiate the consecutive stages of psychotherapeutic treatment.

The Importance of " The Acting Person " for the Theory of Psychiatry and Psychotherapy

The idea of man as a dynamic creature capable of integration through moral action seems to be very important for psychopathological diagnosis and for psychotherapy in general. In the light of the conception of self-realization which grows from self-determination, psychotherapy appears as help given by one human person to another human person on his way to achieve full humanity, i.e., full integration and self-possession.

The patients often speak about their lack of a strong, will, and this lack is usually manifested in their behaviour. To persuade him that, in order to become free, he must become self-dependent, that human freedom does not consist in being independent of anything, but that precisely man's dependence on himself —and this dependence, in turn, involves dependence on truth— is the way of delivering the patient from the oppressive feeling of being fully determined and unfree.



The realization of man's dependence on truth leads to the next stage of psychotherapy, in which the hierarchy of values is discussed. In order to be ready to accept this dependence, one must accept truth as a value. Therefore the psychotherapist himself must accept the proper hierarchy of values. The patient is involved in different reactions owing to which he has lost the feeling of freedom. It is the doctor's task to show him which of his actions have not been free and how he can recover his freedom, expressed by the author in the sentence " I can but I need not. " The therapy aims at " improving " the patient. The idea of man as a person who naturally tends towards the good and towards the true allows the doctor to believe in the efficacy of the treatment. This has been confirmed in practice: when young people perceive true values as values, they do, as a rule, engage in their realization.

An appeal to the patient's conscience is not, in general, presupposed in psychotherapy. But it has turned out that, in the process of discovering values, the patient comes to evaluate his own actions, in particular in the later stages of the process. Therefore, we may say that his conscience has been awakened by psychotherapy. It is precisely this awakening of a man's conscience, based on the rise of his feeling of duty, which leads him towards decisions and actions. The goal of psychotherapy is to awaken the patient's ability to respond to values with his will.

In this way, the knowledge about man which we find in *The Acting Person* allows us to conceive and apply efficient psychotherapy. Moreover, this work explains in a precise way the main concepts on which the whole of psychotherapy is based. Those concepts are:

5. The unconscious

Many authors, with Freud, regard the unconscious as an anonymous, destructive power to which

we have to yield and which in a subtle but essential manner determines our behaviour. Doctors often speak about this power, and patients often try to justify their conduct by appealing to it, and the psychiatrists and psychotherapists share this opinion. It is often difficult to deliver the patient from his oppressive feeling of this determination.

Karol Wojtyla, on the contrary, understands the unconscious as part of the potentiality of the human person, as part of the task which each of us is for himself—the task of making it conscious and subject to the person's self-determination.

According to the author, the role of the unconscious is:

a) Making visible the subject's potentiality and the perspective of his development.

b) Showing us the inner constitution and coherence of the subject.

By enclosing and conserving everything that a person experiences, it enriches him and furnishes material for conscious elaboration. It shows man as a creature innerly subjected to time and, owing to its striving towards consciousness, it may serve the person's integration. This point, which is at variance with psychoanalytic doctrine, has been confirmed by practice and by the so-called " experiment of life " and is of capital importance for psychotherapy.

6. Freedom

Making the patient free is the proper task of psychotherapy. He should be liberated from his inner entanglements in order to be able to act in a chosen direction. We all know how difficult a task it is. Objectifying psychotherapy appealed, in fact, to plain common sense, which saw the place of freedom, as Wojtyla expressed it, between " I can " and " I need not " —in a free choice between doing and not doing his or that. The proper socialization of the patient demands introducing at a certain moment the problem of freedom, of free will. Freedom is based on free choice and on the possibility of action. The patient comes to the doctor with his feeling of constraint, of lack of freedom, and the ensuing discouragement; he identifies himself with his reactions of aggression, self-aggression, etc. When he tries to change this situation and fails, he says: I have no will. Thus, education of will, " strong will " is the goal, in particular with the very young and immature.

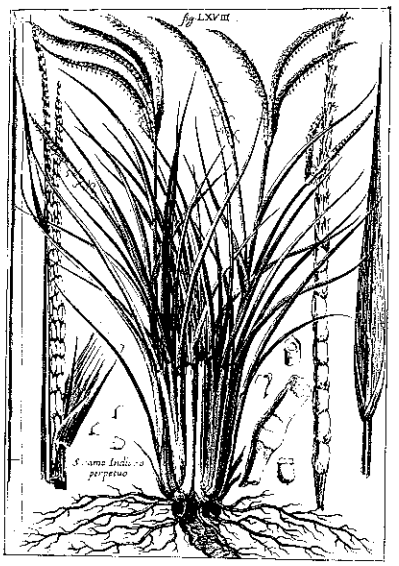
In this way, at a certain stage objectifying psychotherapy must become education, pedagogy. This needs time. In *The Acting Person* we find not only a definition of freedom, but also a precise theory of the education of the will. Only a person who is an object of action for himself may be called free. A man becomes independent through the following.

a) Self-dependence.

b) Self-determination (what is popularly called " the instinct of freedom').

c) A conscious decision which is based on self-determination (which is very important in psychotherapy).

d) The particular tension between the will, as the power of self-determination, and the potentiality of the body, emotivity, and impulsiveness.



The source of the patient's crisis lies often at this point. Facing this tension, he yields, gives up striving. Therefore, this is precisely the ground on which psychotherapy must work. Efficiency grows together with practice, a person gradually learns to use his will and becomes more self-dependent, more free. A free person decides, but this decision must pass into a real choice, into action. A theoretical " I should like " must become " I will, I chose this or that. " This passing from " pure consciousness " to the realization of some concrete goals is called " socialization " in psychotherapy.

Defining freedom as self-dependence has an enormous practical importance. People often understand freedom as absolute independence, independence from anything; and this amounts, in fact, to dependence on a fleeting, momentarily accepted situation. They do not realize that the source of freedom must lie in themselves, in their inner self. This is particularly manifest in the sphere of sexual experiences and actions. Showing people this simple truth may deliver them from many confusions (but, at the same time, it puts before them many obligations). Here, at this point, responsibility arises: proper psychotherapy always brings about the rise of the patient's feeling of responsibility and is, in this sense, an educational process.

This sense of freedom is very pertinently expressed by the author of *The Acting Person* as " freedom to " (and not " from'): freedom which makes possible becoming fully oneself and, in fact, is itself this self-realization. In this context, the author's distinction between " what is going on in me " and " what I myself do " is very helpful. It helps the patient to know and, consequently, to change himself. Therefore, the first stage of psychotherapy should bring self-knowledge to the patient in order to enable him to adopt a conscious attitude towards what is " going on " in him and to strive towards making it dependent on him.

3. Lack of Integration

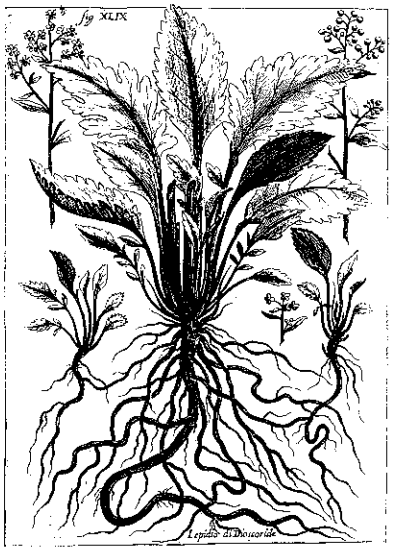
Effective psychotherapy, which is supposed to realize a man's integration, presupposes our understanding of nonintegration. Both terms—integration and nonintegration—are ambiguous. We must specify what can—and should—be integrated. Wojtyla's conception of the person explains it.

Emotions and, in particular, passions and impulses are often regarded as leading to nonintegration. According to Wojtyla, nonintegration is a consequence of a certain inability of the person to possess himself and to govern himself. But he also stresses that the whole realm of the emotional life of man may become his property, placing at his disposal the whole wealth of his personality. What is more, in spite of the existence of the danger of an excessive emotionalization of the person's conscious life and of his will, this realm has a creative role in life; it gives to our actions a particular power and expressiveness.

Thus, nonintegration is not regarded here as an irreversible disturbance or defect of personality, but as an intermediate stage on our way to self-fulfillment, as a task to be performed—the task of integrating the whole wealth of our personality. And so the dynamism of man shows itself in a very clear way and leads us to optimism; an optimism, however, more realistic than that of Rogers,[3] who somehow naively believes that merely pointing out the goodness of human nature is enough to make people good. Nevertheless, the perspectives of a person's development turn out to be, in fact, unlimited, with sanctity as its final goal. And so this view of man stimulates the psychotherapist in his efforts.

7. Integration

In my psychotherapeutic practice I came to the conclusion that there must be accepted an " axis of integration " for each patient, an axis along which the patient's efforts are directed. Only purposeful action integrates. This finds its expression in Wojtyla's conception of integration as a realization and manifestation of the whole of a person's personality which takes place on the basis of a certain complexity. This complexity is the very wealth of man's personality taken as a whole, together with his sensitivity, emotivity, impulsiveness, unconscious, etc. It is a complex, dynamic psychological structure, taken together with man's somatic structure.



Now, this wealth of different components is understood as a task, a task to be realized: the task for each man to become more himself, to become " somebody. " This dynamic idea of man seems to be in perfect agreement with our experience of ourselves and it gives psychotherapy its full sense. Only psychotherapy which makes possible for a person a creative integration of himself through himself turns out to have sense and a chance of realization.

Active integration must go through the stages of self-determination and self-governing towards self-possession. In this way, the different elements of the human dynamism are integrated at the personal level. But this cannot be achieved in a passive way, without an involvement of the patient's will. This explains the failure of those methods of psychotherapy which were solely directed towards, e.g., pulling out some elements of the patient's personality from his unconscious. Disclosing of those elements is not, by itself, a fulfillment of the person. It is not only cognition but, above all, transformation that is here at stake. Nobody is " finished " but we are, all of us, able to develop and in need of fulfillment.

8. Integration through Action

At the personal level, there exists no passive integration. It is only in conscious, responsible action that what we have called " objectivization, " and what Wojtyla calls " integration through action " can be realized. After the stages of psychotherapy, in which the patient came to know himself better and to adopt the attitude of freedom and self-determination, i.e., when he became able to choose freely and to decide about himself, we came to the final stage of realization. Each stage was a condition for the next one: the

cognized value incited obligation and this, in turn, made the patient strive towards the realization of this obligation.

It is a result of psychotherapeutic experience that integration must be based on action. It turned out that, owing to his actions, the patient became more equilibrated. Wojtyla's anthropological analyses explain it by stating that the quality of the action passes to its author. Man fulfills himself as a person, as somebody, and he can become good or evil as man on the strength of his actions. The goal of psychotherapy is precisely to help him to fulfill himself, to become a good man; and this presupposes making him able to perform good actions. This is also the main basis for any education.

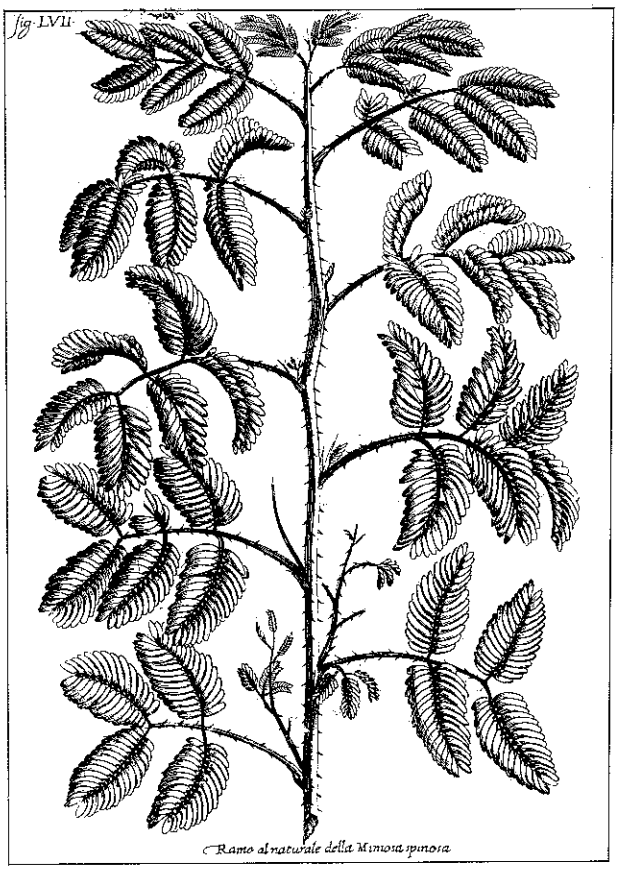
In keeping with the views of the author of *The Acting Person*, a mature person directs his actions towards his own self-fulfillment not only by way of spontaneous reactions alone, but, above all, owing to his cognition of the truth about himself and about the world, the truth which shows to him his obligations and his responsibility.

Objectifying psychotherapy has turned out to be in accordance with the idea of the person's self-possession and aims at enabling the patient to integrate himself through his own free, responsible acts. Its practical value seems to be established as well by experience as in theory. It might be interesting to analyse the whole range of psychopathology from the point of view of the idea of self-possession, in particular in relation to so-called addicted persons. But this is a topic for a new essay.

Prof. WANDA POLTAWSKA
Director of the Institute for the Theology of the Family at the Pontifical Theological Academy of Cracow, Poland

Notes

[1] VICTOR E. FRANKL: *La psychotherapie et son image de l'homme*, Paris 1970
[2] VICTOR E. FRANKL: *Homo Patiens*, Warszawa 1971.
[3] C.P. ROGERS: *Le développement de l'homme*, Paris 1970.



FRANCO MARINI

Role of Employment

I suppose we agree on the fact that drug addiction and alcoholism do not represent a reality that has to be condemned according to an old-fashioned mentality. They have to be included in a picture of diseases and treated as diseases with adequate preventive, therapeutic measures.

We find instead a time lag in conceptions, in structures, and in people, and consequently there is a marked contradiction between the attention that is paid at a social and political level to this problem and the insufficiency or lack of remedies: an empty space filled only in part by temporary "volunteers."

It is time to react to inactivity and the absence of basic strategies, particularly in public authorities.

We have to eliminate the existing situation of compliance and passivity.

The estimated data on the phenomenon constitute a social condemnation on their own. Today in Italy there are more than 300,000 drug addicts and more than 3 million alcoholics.

The number of dead caused by drug consumption, in the period from 1986 to 1990 has quadrupled. 89% of the dead due to alcohol in 1990 were males between 26 and 29 years of age.

We have to add that 70% of the AIDS-affected are drug addicts. In Italy, according to the statistics, there are 40,000 dead a year due to alcoholism. These high numbers show no signs of dropping. On the contrary, they even include categories that previously were insignificant for statistics: women and children. Besides, the data show that alcohol kills even more than drugs: if one person dies of heroin, 100 persons die of wine and liquors.

And still we notice a general and alarming neglect of the social scourge of alcoholism. There are different explanations for this evasive behaviour: above all, of a historical character. If drug addiction is a result of current times, alcoholism is a vice of ancient times and finds a kind of justification in this antiquity. Another possible explanation involves an economic origin: alcohol is connected with interests that comprise a large scale of activities. Don't forget that Italy holds first place among wine producers (nearly 25% of the world production) and exports 10% of the gross national product of alcoholic drinks. Among the European countries, after France and the Netherlands, Italy holds third place in alcohol consumption, and at a national level we find the highest consumption in the northern regions. The third possible explanation has a psychological basis related to different results in the two different kinds of consumption: a violent death in the case of drugs and a slow agony for the alcoholics.

Also, in cases of misuse, alcohol seems to keep the halo of lawfulness, as the borderline between misuse and normal consumption is uncertain and may vary according to persons and habits. In contrast to many other countries, all this has contributed in Italy to not introducing rules for alcohol consumption and consequently there is a real lack of civic education in this sector, which is at the same time the cause and effect of legislative disinterest.

The problem of drugs, instead, has always been a topic in discussions, and on different levels there have been efficient actions in order to stir up public opinion.

Government, at a legislative and administrative level, has reviewed several times its instruments and recently, after a lively debate, Law No. 162/90 was adopted.

Social surveys revealed that alcohol and drugs are very often correlated; there is an increasing number of people who take both. Drugs and alcohol, seperated or in combination, are capturing more and more people in the working world. This is why there have to be, now and in future, specific surveys and controls in order to know the phenomenon exactly and to cope with it.

In this respect, the Italian situation is largely precarious.

If we assume that the production cycle in the big firms with specialisation of course exerts influence on the worker, who is subjected to continuous stress (it suffices to recall environmental aspects, working techniques, the different kinds of pollution, a role the worker does not like, the expectations that are not satisfied, insufficient wages, and so on), then there is reason to think that the worker is driven to "escape" and to seek shelter in the disastrous alternative of drugs and/or alcohol. However, we must also underline the condition of unemployment and the typical status of the people on the dole (that means reduced compensation for work or the loss of work because of an economic crisis in the firm). This status leads necessarily to the misuse of these substances. According to the estimates made, 65% of alcohol and drug addicts are unemployed, whereas the remaining 35% have a job or are waiting for one.

If employment may lead to the loss of the individual's subjectivity and push him to the excessive use of these substances, then unemployment represents from the very beginning a negation of the person's working performance, that is, perhaps of the most important part of his personal and social dignity. When a worker is on the dole, he lives the contradictory experience of being paid without working, this means, he is not considered unemployed even if he does not work. This originates a feeling of dependence, uselessness, and of having lost a significant role inside and outside the family.

As we know, the abnormal use of alcoholic drinks and drugs in the end atrophies the brain and jeopardizes the exercise of its capabilities. During the long and progressive process the worker may show reprehensible behaviour: it ranges from absence at work (often justified as illness), insufficiency, or even non-performance to actions that damage production. This leads to disciplinary proceedings and consequently to various sanctions.

This complex phenomenon that up to now has not been sufficiently analyzed, exceeds the working place and affects the family and in general the whole social area. Finally, the disaster may end with suicide. The number of suicides is rising, especially in the Italian regions with the highest alcohol consumption per capita. Statistics show that 25% of suicides and 35% of accidents at the working place are due to alcohol. The scourge affects mainly workmen and particularly those who carry out strenuous work in places with dust and high temperatures (bricklayers, miners, iron workers).

As far as the spread of the phenomenon is concerned, we cannot, however, draw border lines between the social classes: There are also workmen, but " the evil is the same for all. "

As to the countermeasures, in which we are particularly interested, during the last years our country has mobilized forces at a private and public level in order to reduce the ignorance and the indifference towards this explosive issue.

Our intention is not only to plan but to materialize a number of services that at once supply information and create more equitable channels for obtaining employment and maintaining a job. In this context of unrest, the Italian legislator has pointed out a series of well-defined commitments in the aforementioned Law No. 162/90. The most important part of this law, for the drug problem, is that the borderline between drug addicts and dealers has become very unclear. The concept of " reasonable quantities " has been replaced with " quantities that do not exceed the average daily dose. "



The institutions are not only involved in repressive strategies but also in educational and informative programs in order to fight this dramatic reality.

Preventive measures must be carried out with particular interest in the working world if we want to create in the whole territory a base for educational policies of recovery and reintroduction in the production cycle.

This modus operandi is largely supported by local corporations and regional governments. They are organizing training courses for personnel who are looking after drug addicts. The projects of the local governments are financed by the National Fund for the Fight against Drugs (Art. 127 of the T.U. No. 309/90). To carry out the institutional strategies there is need of coordination among the competent ministries and also of clear and constructive talks with private facilities.

The law provides as well that the drug addict has to stay at home at certain hours when he carries out work for the community without being recompensed. In this context, we have to mention another important aspect (Art. 124) that provides for maintaining the addict's job during an unpaid leave of absence not to exceed three years if he is willing to disintoxicate himself. The same period of leave of absence and special rights are granted also to the family members.

Important as well is that part of the law (Art. 134) that provides " projects for the employment of drug addicts. " The Ministry of Employment has to communicate its opinion to the committee founded at the Presidency of the Cabinet.

Up to now we received 260 projects that are under examination.

We have to point out that the Italian Ministry of Labor is represented on the National Committee for Antidrug Coordination in order to adopt means that correspond to the particular needs of the working world.

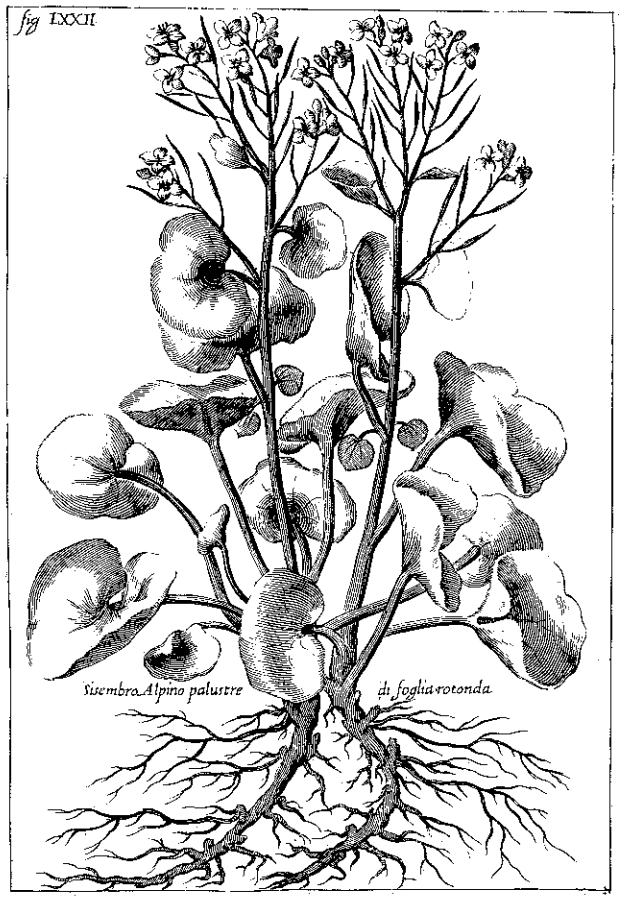
As far as commitment and initiative are concerned, we must acknowledge an important role for the trade unions. By means of both collective negotiation and information, they have always tried to protect the workers affected by drug addiction or alcoholism, at first trying to defend their jobs and secondly trying to grant them more flexibility at work and special work permissions

The trade unions are convinced of the need for continuous interaction between the working world and all its components and the family, the social institutions, and volunteer services in order to reach the best results.

Finally, we have to remember the numerous Church activities in our country. Their work is carried out in free facilities and consists in a series of programs and training courses, education, first aid services, health care for recovery and reintroduction into society.

I have no doubt about efficient resources and structures that are available at a therapeutic level. Public authorities must take responsibility for their application. However, I think nothing is more important than solidarity and authentic witnessing that are able to generate a complete change in values and priorities which a frantic, acquisitive, and fleeting collective movement in a direction that is not at all clear. And once again personal subjectivity and the working man are the interior parameter for every real redemption.

Dr FRANCO MARINI
Minister of Labor Italy



WILLIAM O'BRIEN

Therapeutic Communities around the World

...They are called therapeutae and therapeutrides ...because they profess an art of medicine more excellent than that in general use in cities; for that only heals bodies, but the other heals souls which are under the mastery of terrible and almost incurable disesases, which pleasures and appetites, fears and griefs, and covetousness, and follies, and injustices, and all the rest of the innumerable multitudes of other passions and vices have inflicted upon them.....

Philo Judaeus, ca. 25 BC-45 AD (1)

Even if the young Arab boy in 947 hadn't fallen into that hole ear the shores of the Dead Sea hile pursuing a goat one morng— the hole being the roof of a ave filled with ancient manucripts— the origins of the Therpeutic Community Movement ould have stirred the imaginations f all of us this morning. We would ave spanned nearly 1900 years ith vivid traces to the Early Chrisan Community and, especially, to iat closely-knit group gathered in ie catacombs of this City and its ivirons. His accident, however, irfaced what we all know as the ead Sea Scrolls and brought our lovement further into the recesses history to the Intertestamentary eriod, over two millenia, and to e Essenes, a Jewish Messianic sect hich operated the remarkable mmunity at Wadi Qumran. Philo idaeus cites this group in the ening paragraph of this Presentaon.

While there is some foundation the testimony holding that the st sparks of the small-group ovement at Qumran impacted upon the later Jewish Community in places like Nazareth and, hence, upon Christ Himself, the strong reality remains that what we know today as *religion* first saw the light of day as a caring, small-group movement, expending its energies in both directions: vertically in relation to the Godhead and horizontally in relation to the circle of fellow believers. This registers with us as no strange discovery. Doesn't the term, *re-ligion*, have as its main root the Latin stem *ligare*—to bind? Hence, the terms *ligament* and *ligature*. Combined with the prefix, *re*, its etymological profile is clear: *to bind back together, to reconnect, to reunite, to reconcile*. And the Qumran Community, along with the later Catacomb Community, were in pursuit of the task of reconnecting man with his roots both vertically and horizontally, with his loving God and with his loving family. Those efforts reached splendid proportions in the Catacomb Family of the *eucharistia*, the love feast of the " People of the Way, " prompting the Roman plunderers of the Catacombs, as recorded by the Jewish Historian, Josephus, to marvel: *These are a strange people. They love one another*

The strong admonition of James in his Epistle may take us by surprise two centuries later: *Therefore confess your sins to one another and pray for one another, that you made be healed*. Current practise centers on private confession to a priest bound by an irrevocable seal of secrecy in Roman Catholic tradition, while Protestantism insures even greater secrery by removing the sacerdotal intermediary and encouraging a private, personal recourse to the Godhead.

James was reflecting Christ's emphasis on personal honesty and openness and *his* harsh words for hypocrisy. Hence, the primitive Christian Community was marked both by its *Koinonia groups* and the central, saving process of *exomologesis*. *Koinonia* spoke to the bond of love, caring, and discipline which was their benchmark. *Exomologesis* spoke to the full, unreserved, open confession of sin or fault followed by appropriate restitution and penance. The commission of fault involved both a rupture with a loving God as well as with one's caring family of believers. That rupture must be breached—a reconnection or reconciliation. Contrition and meaningful restitution as well as positive support for improvement of behavior were at the heart of this small-group Christianity. Bonafide contrition was inextricably linked with bonafide restitution for the damage incurred; defying subsequent efforts at short-cut, easy solutions, which Bonhoeffer describes as *cheap grace*. The origin of magical salvation formulas as well as new secular therapy theories are reflected in Bonhoeffer's concern.

Though the key ingredients of the Early Christian Community shared pride of authorship with the Qumran Community of the Essenes and, subsequently, were canonized across the pages of history to a greater or lesser degree in the Anabaptists, Quakers, Amish, Mennonites, the Oxford Group, and Moral Rearmament, the Therapeutic Community bears a striking resemblence both to Qumran and the Ca-

tacomb Communities: honesty and openness, confession to our significant others, restitution or "clean-up," positive support of improvement of behavior, bonding through loving concern. A measure of difference remains, however. We emphasize that the divine dimension of man must rest solidly on the human or else we build the house upon sand; hence, our insistence that we first devote ourselves to man, his identity and goals, his values and his adherence to the natural virtues of honesty—responsibility, openness, caring, etc. Then, like the flower spreading its petals toward the sun, the human opens wide to the divine.

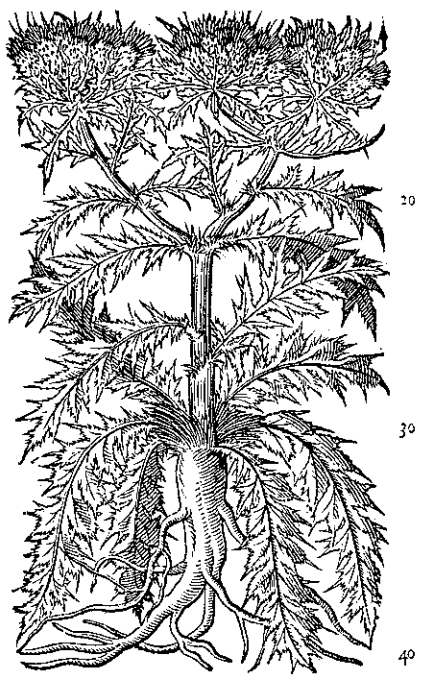
The definition of the Therapeutic Community is generic enough to embrace the wide range of the world's *walking wounded*, who have fallen-out of family for one or more reasons and are in such desperate need of healing. At the same time, while concise and to the point, it is pregnant with possibilities.

The Therapeutic Community is a learning environment, not unlike the womb environment of the natural family, where the young person must navigate in a loving but challenging setting to take hold of his/her life and grow into responsible adulthood.

A phenomenal revolution in health-recovery has unfolded since the first stirrings of the World Federation of Therapeutic Communities took place on the banks of the Chao Phraya in Bangkok in 1975. With nearly two decades of marked growth of the Therapeutic Community Movement already behind them, a cadre of TC leaders from the U.S., Canada, Sweden, and Italy broke ranks with an international symposium in Thailand that continued to focus mainly on the symptomatology of addiction, with special accent on pharmacology. Our leaders struck-out for a new understanding of the problems that centered upon the person instead of the drug, the life-crisis rather than the aberrant lifestyle, the whole man in travail rather than a part of him. And, consequently, the remedy, as we viewed it, belonged in the resolution of deeply-rooted sociological, psychological, theological and philosophical, physiological and spiritual as well as sexual and behavioral issues. That remedy demanded the correlation of the insights and energies of all the helping sciences working as a team to heal the whole person—an unheard-of challenge heretofore.

Clemenceau, as some of you might recall, was Premier of France during the First World War and distinguished himself at Versailles in fashioning the peace. Yet he sparked a war of his own a few years later in his commentary: Health is much too serious a matter to be left entirely to Doctors, Psychiatrists, Psychologists, and the established Medical System.

Seemingly intransigent, drug addiction has left its jagged scars upon the family of man for over a century now. In its ineluctable march, its casualties include generations of the young, their families and communities, whole societies and nations, on all six continents of the globe. From the valley of the Himalayas bordering China and its neighbors in Yunnan Province (the home of 460,000 young intravenous heroin addicts) to scenic Florianopolis on Brazil's south Atlantic coast (where 26,000 abandoned children are nurtured in our affiliate, *Fucabem*), to the hollowed-out shells of slum buildings in New York's South Bronx, to the syringe-strewn alleys of Rome's Trastevere, the message bombards us from every side: "We are in very serious trouble! Our families are crumbling! Our young are dying before our eyes or being gravely maimed! Our neighborhoods have become battlegrounds and graveyards! What are we to do?"



With the past as prologue and a bit weary of "polyester wars" on drugs declared across the world, both by the well-meaning as well as those leaders somewhat less than that, we embarked some three decades ago upon a journey: *The World Therapeutic Community Movement*. The Therapeutic Community represents the "healing family" approach to recovery and borrows much more from the fields of philosophy, theology, and pedagogy than the traditional wells of medicine and mental health. From the outset, it recognizes the striking reality that much ground has been lost over many decades now due to the insularity and competitiveness of respective disciplines comprising the helping sciences. It recognizes further that the *whole man* is in travail and in need of healing; prompting a team-effort by the same armada of sciences. It further speaks to the affliction of the family as much as the addiction of the child. Relying strongly upon peer-motivation, its central theme is: *Only you can do it, but you cannot do it alone!*

Sweden welcomed the inaugural gathering of 300 Therapeutic Community leaders in 1976 in Norrkoping on the Scandinavian Archipelago. While serving as our launching-pad for subsequent world congresses in the Netherlands, the Philippines, Italy, Canada, the U.S., Argentina, Thailand, Greece, Hungary, and Malaysia, that first gathering of the world family was a time for reflection, for sharing, for teaching, and for strengthening the bond of colleagueship across continents as well as national and cultural lines.

Though its formative days in the 1950's surrounded Doctor Maxwell

Jones offering a peer self-help TC in London's Henderson Hospital and Scotland's Dingleton, a democratic Therapeutic Community in a secure setting, while a recovering ex-alcoholic, Charles Dederich pioneered the same in a concept-based TC in a beachfront warehouse in California's Santa Monica, the Therapeutic Community Movement experienced marked growth in the '60's and '70's across the U.S. and Europe especially. The World Federation served as the bridge as well as the nurturing agent. This represents a most incredible saga.

Here in Italy, following our 3rd World Conference in 1978 in Rome, the indomitable Mario Picchi engaged Daytop America in assisting the establishment ot the Italian Therapeutic Community Movement. Under the banner of Italy's Center of Solidarity, Daytop Staff were dispatched first to a small center in the City, a former convent capable of housing just 14 young people. The TC philosophy of treatment and structure was put in place by Italian-American Staff while the overflow of Italian youngsters needing treatment boarded Alitalia flights to New York and Daytop America. Out of that historic beginning at the humble Sant'Andrea Therapeutic Community in southwest Rome, in a dozen years the Therapeutic Community Movement has exploded across the Italian peninsula into 37 cities and villages engaging 22,505 people on various levels in 171 distinct centers and increasing at a rate of 2,000 a year. With 10,000 young people currently in treatment and another 3,357 graduated, with 10,000 parents in weekly family therapy groups, the central training center at Castel Gandolfo has equipped 1,427 Italian Staff along with 3,610 volunteers with the Therapeutic Community skills. Pope John Paul II spoke these words in 1984 to our Delegates at the 8th World Conference: " The Therapeutic Communities, despite their varieties, have kept tenaciously to the principle of the ' value of man ' and in so doing have demonstrated an efficacious force. " The Pope has further provided the leadership through his personal intervention and visits to these youngsters. We owe much to the caring leadership in this crusade on behalf of Italy's *shadow children*: Francesco Avanzini of Verona, Vincenzo Sorce of Sicily, Giacomo Stinga of Florence, Antonio Vitiello of Naples, Paolo Pini of Turin, Mario Baj of Milan, Juan Corelli of Rome, Bianca Costa of Genoa, and a host of others. Victor Grech of Malta has carved a most remarkable TC creation on that Mediterranian isle.

Across the Alps, Doctor Ulrich Osterhues of Munich responded to the crisis in drug and alcohol addiction across Germany by the establishment of a network of Daytop Treatment Centers from Dusseldorf to Berlin, from Nurnberg to Munich — 28 in all. Switzerland has its own universe of 12 small communities; while Austria is in formative stages with 3 communities. Great Britain boasts a Phoenix House network under David Tomlinson and trained out of Phoenix New York, as does Ireland with its Coolemine Lodge under James Comberton and trained by Daytop New York. The Netherlands and Belgium have strong Therapeutic Communities, which originated with Martien Kooyman's Emiliehoeue in The Hague, which in turn was spawned by Phoenix London.

CHAMELEON BIANCO



Across Scandinavia, the Therapeutic Community is a highly respected part of the health delivery system. Sweden has provided leadership in the area with Uniswed, Vallmotorp, Nordia and Daytop trained out of New York. Norway has both Phoenix and Daytop along with native-grown communities lead by our Colleague, Jens Strenheim. Finland has one full-fledged TC for alcoholics outside Helsinki.

Yugoslavia's Croatia is fast moving from the traditional medical-model approach to the concept-based Therapeutic Community under Doctor Branko Lang in Zagreb. Poland boasts of a flourishing network of 18 Monar Centers, headed by Marek Kotanski, which is looked to as that country's most effective response. Czechoslovakia has sought training from Monar and Daytop Germany. Hungary, with a scheduled World Federation Conference, is moving toward the TC universe. The Soviet Union has joined the World TC orbit with the opening of twin centers in Riga, Latvia, and one in St. Petersburg under the supervision of Daytop Germany. Kiev leaders are currently involved in TC training at America's California-based Walden House under our Colleague, Alfonso Acampora. Spain has had dynamic communities for a half-dozen years now, trained by Rome's CEIS, and located in the Madrid-Barcelona-Valencia urban zones as well as in Basque country. CEIS also trained Portugal.

Greece has forged ahead with its own brand of Therapeutic Communities both in Athens and Thessalonika under the leadership of *Kethea*. Israel very shortly will witness the opening of a major TC, The City of Hope, in the Negev under the dynamic leadership of Abie Nathan, a renowned Israeli peace advocate. Egypt, Cairo in particular, is involved at this time in a training program with Daytop New York with hopes of the launching of a Therapeutic Community under Bishop Serapian and Coptic Church sponsorship. Africa's move toward the TC is in its earliest stages with early contacts with Nigeria and the Ivory Coast. South Africa closed our inaugural Therapeutic Community in 1979 on violation of apartheid strictures. We teach and practise brotherly love.



The United States has been a most fertile land for the Therapeutic Community over three decades. The Movement first saw the light of day in Southern California in 1957. Over 350 communities currently dot the U.S. map with almost every variety of communities, tailored for ethnic groups, for delinquent children, for adolescents, for criminals, for occupationally-impaired adults, for addicted mothers and others. Canada is proud of strong communities centered in Montreal, Toronto, Manitoba, and British Columbia. Le Portage and Stonehenge are our leaders there. They number over 12 distinct centers. Central America, long a drug transit zone, is moving toward the TC, as is Mexico. A very unique Therapeutic Community was trained by Daytop New York for very young solvent addicts (ages 8-12) outside Tegucigalpa, Honduras. Bermuda, Barbados, and Trinidad have arrived on the doorstep of Daytop New York for training assistance.

Increasingly, nations of South America have looked to the World Federation of Therapeutic Communities for a solution to their burgeoning drug problem. Our Colleagues from Rome's CEIS responded so effectively a decade ago to the pleas of Marcos Fidel Lopez Fernandez and helped him set-up vital treatment resources in Bogota, Medellin, and Cali in Colombia. To neighboring Bolivia in the City of Santa Cruz CEIS also lent its expertise, while Daytop New York did the same for Patricia Ackerman's Chinchaya TC in La Paz. Cesar Pezo de Pino, who heads the mental health effort in adjoining Lima, Peru, is currently scheduled for intensive TC training. Pedro Delgado of Caracas established our beachhead in Venezuela, as has Eliseo Miguel Gonzales Regadas in Montevideo, Uruguay. CEIS Rome has also trained our leadership in Santiago, Chile.

The two giants of the continent, however, have responded to the needs of family and lost youth in accelerated steps toward setting-up our *healing families* in their midst. For two decades now, one-out-of-15 children under the age of ten have been abandoned by their impoverished families in the favelas of Brazil. A generation of lost children have roamed the beaches of Rio, especially Ipanema and Copacabana, as well as the back-alleys of Sao Paulo and Recife. In response to public safety concerns and the threat to business, armed vigilantes killed 490 of these street children last year. The movement toward the Therapeutic Community is responding more to family fall-out through abandonment than drug addiction. In Florianopolis, 300 miles south of Rio and bordering the Atlantic, our Colleague TC, *Fucabem*, houses 26,000 youth from babies in bassinettes to teenagers. Jesuit Harold Rahm, Brazil's own brand of America's legendary Father Flanagan, has established Therapeutic Communities in his ranchos in Campinas, Sao Paulo, Rio, and Brazilia through Daytop New York training. And also, in Rio, the dedicated youth worker, Lilia Catao, has fired the imagination of the Citizenry to assist her therapeutic community work.

Argentina has similar bright and hopeful breakthroughs. With most drug use confined to the Federal Capital, Buenos Aires, as well as the seaport city of Rosario, very exciting forays in the recovery of life via the TC have been pioneered by TC Giants Carlos Rossi of the TC Viaje de Vuelta, Carlos Novelli of Proyecto Andres, German Garcia Ivorra of Aciar, Daniel Campagna of Communidad del Sol, Elena Goti of Proyecto Andres, and their colleagues.

Australia and New Zealand have not been without remarkable achievement in the world Therapeutic Community Movement. The inspired Ian Permezel of Melbourne's Odyssey House, along with Joseph Lamberti, have led the Odyssey House TC's in Sydney and Melbourne, as well as in Auckland, New Zealand, into the World Federation orbit. Through their leadership, Australia has a thriving network of 16 Therapeutic Communities, and New Zealand has 8, situated in Auckland, Wellington, Christ Church, and the Bay of Plenty. Just to the north, the dynamic Vincentian, William Liebert, has come to the World Federation to explore training for his Boys Town in Papua, New Guinea.

The South China Sea orbit as well as the Asian continent have begun to turn toward the World Fed-

eration effort in responding to their own youth crisis. There was some hesitation at first, arising from very valid concerns that methods readily acceptable in western culture might be unacceptable in the Orient. Having surmounted this obstacle, the TC Movement is moving forward with phenomenal strides. The Philippines has had the Daytop New York-trained DARE TC in Manila for two decades now. A second TC, DAYTOP, in Antipolo on the fringe of Manila, has been launched under the tutelage of the wife of the Vice President, while 6 other communities dot the islands. Indonesia, under Tati Darsoyo, is moving toward an outpatient TC in Jakarta. Malaysia has had a vibrant TC history in Ipoh for 15 years now: The Helping Center (Pusat Pertolongan), the offspring of Manila's DARE. Rebirth Center in Ratchaburi, Thailand was originally trained and staffed, also, by DARE; only to be replaced by Daytop New York, which has continued to work in concert with the Office of the Thai Narcotics Control Board as well as the National Council of Social Welfare toward setting-up a network of treatment and training centers across Thailand, but, especially, in Bangkok, Chiang Mai, and Chon Buri. Kathmandu, Nepal, under the leadership of Birendra Man Shrestha and his Youth Activities Coordinating Committee, has approached the World Federation for assistance.

Probably the most recent and exciting development surrounds the accelerated interest on the part of the Health Authorities in the People's Republic of China in the Therapeutic Community. Having visited our Thai community in Ratchaburi in 1989, Chinese Health leadership invited us to Beijing last year to appraise the situation in the Capital City as well as in Kunming in Yunnan Province. We opted to begin in the latter area since Yunnan finds itself in the valley of the Himalayas and on the drug corridor bordering Tibet, Laos, Burma, and Vietnam. Our visit there revealed a crisis-situation involving 460,000 young intravenous heroin addicts and already 810 HIV-positive cases. Just a few days ago, we re-visited Kunming to inspect the site of Daytop training and treatment centers for anguished youngsters, whom we found not unlike the troubled young people of New York, Munich, or Sydney. As I speak, Daytop Staff are conducting a major Training Institute in Beijing under the joint sponsorship of the Health Ministry of China and the U.S. Department of State for a cross-section of the helping professions.

We have been alive and well on the Indian continent in Bombay and Goa via the dedicated efforts of our late Colleague, Russel Pinto and more recently by Eldred Tellis, in the flourishing communities of Seva Dhan. Leo Fernando in Sri Lanka has established out-patient TC's in Wewala Pilyandala, and they are increasing their activities currently.

Logistically, it is most difficult for us out of World Federation Headquarters in New York to keep life-lines open with a disparate Therapeutic Community universe. Hence, regional clusters of our TC's are organized across the world to better achieve ongoing contact with the local organizations:

Therapeutic Communities of America, Inc. (U.S and Canada), under Daniel Heit of Pennsylvania's Abraxis TC.

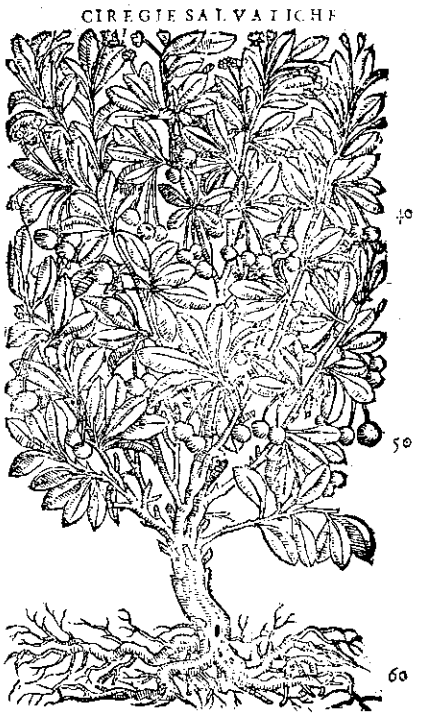
Latin-American Federation of Therapeutic Communities (Central-South America), under Doctor Miguel Bianucci of Buenos Aires' Gradiva.

European Federation of Therapeutic Communities (Europe), under David Tomlinson of London's Phoenix House.

Asian Federation of Therapeutic Communities (Asia Continent and South China Sea), under Justice Amnuay Intuputi of Thailand's National Council of Social Welfare.

Oceanic Federation of Therapeutic Communities (Australia, New Zealand, New Guinea, Micronesia, Polynesia, Melanesia), under Joseph Lamberti of Australia's Odyssey House.

In "walking you" across our planet this morning, across the Universe of our 54-nation network of Therapeutic Communities, I regret that I was not able to capture the depth of pain and tragedy written



across the faces of 3 million of our youngsters and their families as they bravely struggle to come to grips with survival in a world brimming over with forces antithetical to healthy family life. If nothing else, this message of mine attempts to speak to their anguish and despair.

In so doing, I leave out what particular brand of chemical might find itself in current vogue in any particular place at any particular time. I leave that to the biochemists, neuro-transmitter scientists, pharmo-psychiatrists, and roving bands of international as well as national policing establishments.

The time is upon us to look beyond the issues of drug cultivation, distribution, commerce, trafficking, interdiction, and enforcement to these legions of the maimed and dying and without hope. They are numbered in the many millions. They are found both in our urban centers and on our farms. They are the walking-wounded of our world. Long ago, the spark of youth has faded. They cry out, but those cries are going unheard.

Msgr WILLIAM O'BRIEN
President of the World Federation of Therapeutic Communities
USA

References

PHILO JUDAEUS, *The Essential Philo*, ed. Mahum N Glatzer, New York, Schocken Books, 1971 XII + 360 pp.

Epistle of James, New Testament, Chapter 5, Verse 16

BONHOEFFER, D, *The Cost of Discipleship*, New York, The Macmillion

POPE JOHN PAUL II, *Message to Delegates of 8th World Conference of Therapeutic Communities*, Rome, Italy, 7 September 1984, Castel Gandolfo, " Osservatore Romano ", 8 September 1981, WFTC 8th World Conference Proceedings

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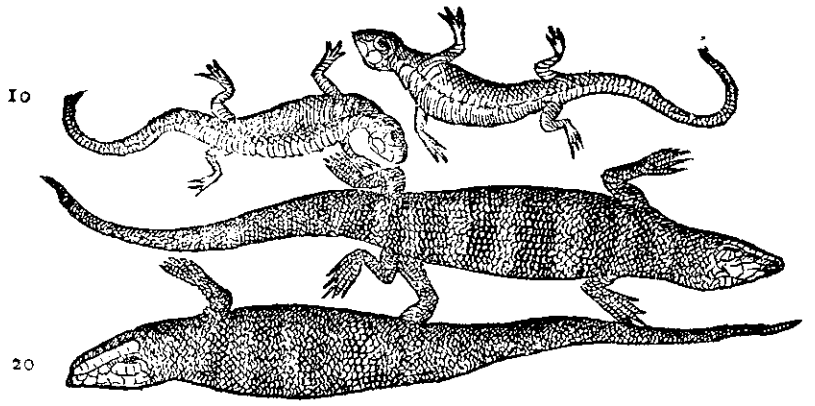


WILLIAM J. CLAUSEN

Alcoholics Anonymous

Distinguished participants in this conference on hope for the hopeless, it is my privilege to share some reflections on Alcoholics Anonymous. What is it?

" Alcoholics Anonymous is a fellowship of men and women who share their experience, strength, and hope with each other that they may solve their common problem and help others to recover from alcoholism. "

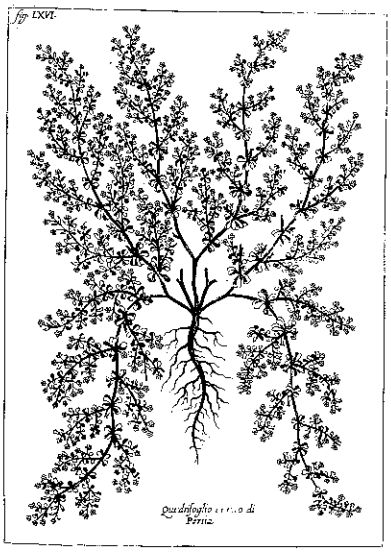
What must an alcoholic do to join A.A.?

" The only requirement for membership is a desire to stop drinking. "[1]

The General Service Office of Alcoholics Anonymous in New York, NY, USA estimates that as of January 1, 1991, there are 93,914 groups totalling 2,047,469 members spread throughout the world.[2] In June of 1935, this fellowship began when one person, a *sober* alcoholic by the name of Bill Wilson, extended his hand to a still suffering alcoholic, Dr. Bob Smith. Bill shared his experience, strength, and hope with Dr. Bob. He did not preach to him. He shared with him. Bob listened as Bill described his own descent into the depths of hopelessness and despair. Bob identified with Bill's utter powerlessness as Bill described in great detail his sickness in body, mind, and spirit. His own efforts were not enough to relieve his alcoholism; no human power could help him. In fact, Bill's own physician, Dr. William Silkworth, had told him that he was hopeless. In this state of utter despair, Bill surrendered to a God he did not know, crying out: " If there be a God, let him show himself! "[3]

Bill's prayers were heard; he found sobriety. He came to believe that the best way to stay sober was to share what God did for him. Bill had a " spiritual awakening. "[4] He shared that experience with Dr. Bob. On June 10, 1935, Dr. Bob stopped drinking by trying to live the spiritual principles as Bill had shared them.[5]

Within a few years, the spiritual principles of A.A. had been formulated into the " Twelve Steps. "[6] These suggestions for trusting God, cleaning house, and helping others were described in simple terms for daily living that would lead to the " spiritual experience " which frees the alcoholic from the grip of insanity. With the help of the pioneers of A.A., Bill published the book *Alcoholics Anonymous* in 1939. It is not only a description of how this experience is brought about, but also the stories of numerous individuals who walked the " Steps " and recovered. These individual testimonials to the power of this simple program of basic spirituality clearly show that *they could not* relieve their alcoholism by their own power, that *no human power could*, but that *God could and would* if He were sought.[7] It is this " seeking God " that leads to recovery and maintains an alcoholic in a sober state one day at a time. But A.A. is very much a " we " program that is passed on through the Group in its regular meetings.[8]



In addition to the Twelve Steps that lead the alcoholic to sobriety, Twelve Traditions were developed. The Traditions are the spiritual principles that maintain the integrity of the Group and the entire Fellowship.[9] Through the years, numerous books and pamphlets, as well as the A.A. monthly publication, " The Grapevine, " have poured out a constant theme of hope for the hopeless. With over fifty-five years' experience, A.A. has developed into a worldwide resource that is readily available to the Health Professional. Lists of the Groups with their meeting places and times are available to anyone reaching out for help. Family members can find the help to recover from this family illness in Al-Anon and Alateen. Both programs use the same basic principles as A.A.[10]

Although both Bill Wilson and Dr. Bob Smith knew that their re-

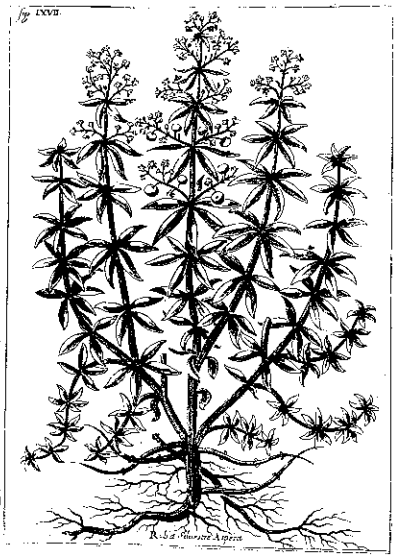
coveries were not the result of organized religion, the medical profession, or any other human powers, they still had a deep respect for religion and the medical profession. From his own experience, Dr. Bob knew that alcoholics were not bad people, but sick people who needed medical attention in a hospital setting. Nevertheless, because drunk alcoholics were so unmanageable and disruptive, he could not find a hospital willing to work with them. Finally, he turned to his friend at St. Thomas Hospital in Akron, Sister Mary Ignatia.

Dr. Bob had shared his own story with Sister. Sister was physically frail, but spiritually robust, with real compassion and humility. She was deeply moved by Dr. Bob's story and resolved to help him. From 1939 until Dr. Bob's death in 1950, this wonderful team of Dr. Bob, the sober, alcoholic physician, and Sister Ignatia, the nonalcoholic, courageous nun, served nearly five thousand alcoholics in that first medical setting. They used the best medicine had to offer as well as the sound spirituality of A.A., which Sister found to be identical to the spirituality she lived on a daily basis as a member of the Religious Community of the Sisters of Charity of St. Augustine. After Dr. Bob died, Sister established Rosary Hall at St. Vincent Charity Hospital in Cleveland, where she continued to work "miracles" with the blend of good medicine and the spirituality of the A.A. program. At St. Vincent Hospital, Sister served ten thousand alcoholics until her death on April 1, 1966. This woman of faith had a motto: "Eternity is now!" And her favorite Scripture passage was St. Paul, 1 Cor. 1, 27: "But God has chosen the foolish things of the world to put to shame the wise, and God has chosen the weak things of the world to put to shame the things that are mighty."[11]

In the August 1966 issue of "The Grapevine," Bill praised Sister as an effective and pioneering therapist of the psychosocial recovery of thousands of alcoholics: "We of Alcoholics Anonymous look upon you as the finest friend and the greatest spirit we may ever know."

"We remember your tender ministrations to us in the days when A.A. was very young. Your partnership with Dr. Bob in that early time has created for us a spiritual heritage of incomparable worth."

"In all the years since we have watched you at the bedside of thousands. So watching, we have perceived ourselves to be the beneficiaries of that wondrous light which God has always sent through you to illumine our darkness."[12]



Besides Sister Ignatia, who came to be known as the "Angel of Alcoholics Anonymous,"[13] other Roman Catholics in the United States saw the wisdom in this spiritual program and quickly offered their support. Father Edward Dowling, S.J., was an advisor and close personal friend of Bill Wilson.[14] Father Ralph Pfau, the first Catholic priest to find sobriety through A.A., went on to establish the National Catholic Council on Alcoholism, which has served the Catholic Community for over forty years.[15] Austin Ripley, a recovering alcoholic layman, established Guest House, a non-profit, charitable organization caring for Catholic bishops, priests, brothers, deacons, and seminarians suffering from alcoholism and other chemical dependencies. Since 1956, this lay-directed program has treated over 4,000 clients.[16] Women Religious also have programs, such as Emmaus House in New Jersey, the Intercongregational Alcoholism Program in Illinois, and the Office of New Directions, in New York.[17] All of these programs use Alcoholics Anonymous as the basis for effective therapy in psychosocial recovery.

At The Residence West for Men, where I work as a counselor, A.A. spirituality is the foundation for our treatment program. When our clients are faithful to A.A., they recover. As a Parish priest for the past twenty-nine years, rarely have I seen a person fail to recover and stay sober who has thoroughly followed the path of Dr. Bob and Bill W.

Recently, Dr. Ernest Kurtz, the noted historian of A.A., shared a story with me about Sister Ignatia. He said that Sister started the practice of giving clients who had completed treatment a badge of the Sacred Heart. She would direct each one to be faithful to A.A. and start each day by looking at the badge..... "And ask God to keep you sober for today." Sister would conclude

by telling the client: " If you decide to take that first drink, then come back here and give me the badge back first. " This practice of giving clients a badge or a " chip " has become a widespread practice to remind them of the grace of sobriety and the need to be grateful, to stay away from the " first drink, " and go to A.A. meetings faithfully.[18]

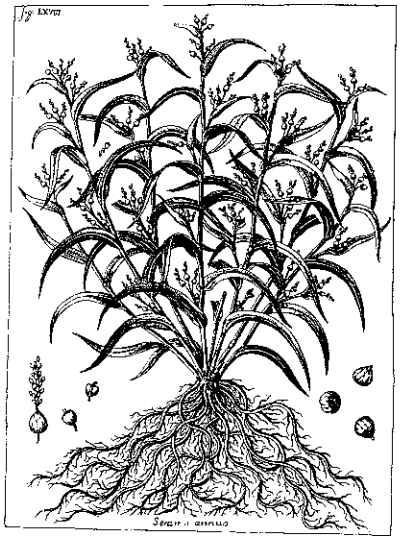
The story is told of a veteran expert in the field of alcoholism... that he once explained A.A. to a group of Catholic Bishops. One of the prelates remarked: " This is old stuff. What's the difference between what Alcoholics Anonymous has to offer and what the church has always taught? " The simple response came in one word: " Success. "[19]

Last November, the Bishops of the United States issued a statement on chemical dependency, entitled: " New Slavery, New Freedom: A Pastoral Message on Substance Abuse. " The statement encourages Catholic parishes to make their facilities " available to self-help groups, such as Alcoholics Anonymous, Al-Anon, Alateen..... The Twelve-Step program, the centerpiece of these powerful groups, has a profoundly spiritual foundation based on trust in God. Our parishes ought to be places of hospitality and support for those confronting and recovering from substance abuse. "[20]

One day, I was lecturing to a group of Catholic people about A.A. as effective therapy for recovery. When I finished, a young college student stayed in his chair after everyone else had left. He told me that he was shocked at how this simple, spiritual program worked when nothing else seemed to. " It's really amazing, isn't it? " he asked. " Yes, " I responded. " It is! "

A.A. does not keep membership records or case histories; it does not try to control its members; it does not make medical or psychiatric diagnoses; nor does it offer religious services. It does cooperate with professionals and is an effective resource that works. A.A. changes hopeless drunks from despair to hope, from dishonesty to honesty, from irresponsibility to responsibility. And that is recovery.

Fr. WILLIAM J. CLAUSEN
Member of the National Catholic Council on Alcoholism and Drug-Related Problems, USA



Notes

[1] " Alcoholics Anonymous is a fellowship of men and women who share their experience, strength, and hope with each other that they may solve their common problem and help others to recover from alcoholism. The only requirement for membership is a desire to stop drinking. There are no dues or fees for A.A. membership; we are self-supporting through our own contributions. A.A. is not allied with any sect, denomination, politics, organization, or institution; it does not wish to engage in any controversy, neither endorses nor opposes any causes. Our primary purpose is to stay sober and help other alcoholics to achieve sobriety. " " The A.A. Grapevine " A.A. Grapevine, Inc., Box 1980, New York, NY.

[2] Membership data supplied from Study of General Service Office, P.O. Box 459, Grand Central Station, New York, NY, 10163. This membership study and analysis of the data is dated April, 1991.

[3] *Pass it On, The Story of Bill Wilson and How the A.A. Message Reached the World* Alcoholics Anonymous World Services, Inc., New York, NY, 1984, pages 120-121.

[4] " The terms ' spiritual experience ' and ' spiritual awakening ' are used many times in this book which, upon careful reading, shows that the personality change sufficient to bring about recovery from alcoholism has manifested itself among us in many different forms

" Yet it is true that our first printing gave many readers the impression that these personality changes, or religious experiences, must be in the nature of sudden and spectacular upheavals. Happily for everyone, this conclusion is erroneous. "

" In the first few chapters a number of sudden revolutionary changes are described. Though it was not our intention to create such an impression, many alcoholics have nevertheless concluded that in order to recover they must acquire an immediate and overwhelming ' God-consciousness ' followed at once by a vast change in feeling and outlook. "

" Among our rapidly growing membership of thousands of alcoholics such transformations, though frequent, are by no means the rule. Most of our experiences are what the psychologist William James calls the ' educational variety ' because they develop slowly over a period of time. Quite often friends of the newcomer are aware of the difference long before he is himself. He finally realizes that he has undergone a profound alteration in his reaction to life; that such a change could hardly have been brought about by himself alone. What often takes place in a few months could seldom have been accomplished by years of self-discipline. With few exceptions our members find that they have tapped an unsuspected inner resource which they presently identify with their own conception of a Power greater than themselves. "

" Most of us think this awareness of a Power greater than ourselves is the essence of spiritual experience. Our more religious members call it ' God-consciousness '.

" Most emphatically we wish to say that any alcoholic capable of honestly facing hid-



den problems in the light of our experience can recover, provided he does not close his mind to all spiritual concepts. He can only be defeated by an attitude of intolerance or belligerent denial. "

" We find that no one need have difficulty with the spirituality of the program. *Willingness, honesty, and open-mindedness are the essentials of recovery. But these are indispensable. " Alcoholics Anonymous, The Story of How Many Thousands of Men and Women Have Recovered from Alcoholism.* Third Edition, Alcoholics Anonymous World Services, Inc , New York City, NY, 1976, pages 569-570.

[5] *Dr. Bob and the Good Oldtimers.* A biography with recollections of early A.A. in the Midwest. Alcoholics Anonymous World Services, Inc., New York, NY, pages 63-75.

[6] " Here are the Steps we took, which are suggested as a program of recovery:

1. We admitted we were powerless over alcohol—that our lives had become unmanageable.

2. Came to believe that a Power greater than ourselves could restore us to sanity.

3. Made a decision to turn our will and our lives over to the care of God *as we understood Him.*

4. Made a searching and fearless moral inventory of ourselves.

5. Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.

6. Were entirely ready to have God remove all these defects of character.

7. Humbly asked Him to remove our shortcomings.

8. Made a list of all persons we had harmed, and became willing to make amends to them all.

9. Made direct amends to such people wherever possible, except when to do so would injure them or others.

10. Continued to take personal inventory and when we were wrong promptly admitted it.

11. Sought through prayer and meditation to improve our conscious contact with God *as we understood Him,* praying only for knowledge of His will for us and the power to carry that out.

12. Having had a spiritual awakening as the result of these Steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs. *Alcoholics Anonymous, The Story of How Many Thousands of Men and Women Have Recovered from Alcoholism, op. cit.,* pages 59-60.

[7] " Our description of the alcoholic, the chapter to the agnostic, and our personal adventures before and after make clear three pertinent ideas:

(a) That we were alcoholic and could not manage our own lives.

(b) That probably no human power could have relieved our alcoholism.

(c) That God could and would if He were sought. " Ibid. page 60.

In a letter to Dr. Carl Jung in January of 1963, Bill Wilson thanked Dr. Jung for his humility in describing an alcoholic patient, Rowland H., as " hopeless. " Dr. Silkworth had described Bill also as a " hopeless " case. Only a " spiritual experience " could free the alcoholic from the obsession to drink. This lack of a human remedy and Bill's own " spiritual experience " led him to formulate the Steps as a way to that experience. Dr. Jung responded to Bill that the recovery of the patient Rowland H. was welcome news. Only the spiritual had the power to free him from alcohol's power: " You see, alcohol in Latin is '*spiritus*' and you use the same word for the highest religious experience as well as the most depraving poison. The helpful formula is: *spiritus contra spiritum.* " *The Language of the Heart. Bill W.'s Grapevine Writings,* " The Bill W.-Carl Jung Letters. " The A.A. Grapevine, Inc , New York, NY, 1988, pages 276-281.

[8] " The local group meeting is the center and heart of the A.A. Fellowship. It is, in many ways, a unique type of gathering and one that is likely to seem strange to the newcomer... ".

" Usually a newcomer to A.A. has had an opportunity to talk to one or more local members before attending the first meeting. This provides an opportunity to learn how A.A. has helped these people.... "

" An open meeting of A.A. is a group meeting that any member of the community, alcoholic or nonalcoholic, may attend. The only obligation is that of not disclosing the names of A.A. members outside the meeting. .. "

" A closed meeting is limited to members of the local A.A. group, or visiting members from other groups... "

" These meetings are usually conducted with maximum informality, and all members are encouraged to participate in the discussions.... " Excerpts from the pamphlet: " 44 Questions. " Alcoholics Anonymous World Services, Inc., New York, NY, 1952, pages 21-22.

[9] The Twelve Traditions:

1. Our common welfare should come first; personal recovery depends on A.A. unity.

2. For our group purpose there is but one ultimate authority—a loving God as He may express Himself in our group conscience. Our leaders are but trusted servants; they do not govern.

3. The only requirement for A.A. membership is a desire to stop drinking.

4. Each group should be autonomous except in matters affecting other groups or A.A. as a whole.

5. Each group has but one primary purpose—to carry its message to the alcoholic who still suffers.

6. An A.A. group ought never to endorse, finance, or lend the A.A. name to any related facility or outside enterprise, lest problems of money, property, and prestige divert us from our primary purpose.

7. Every A.A. group ought to be fully self-supporting, declining outside contributions.

8. Alcoholics Anonymous should remain forever nonprofessional, but our service centers may employ special workers.

9. A.A., as such, ought never be organized; but we may create service boards or committees directly responsible to those they serve.

10. Alcoholics Anonymous has no opinion on outside issues; hence the A.A. name ought never be drawn into public controversy.

11. Our public relations policy is based on attraction rather than promotion; we need always maintain personal anonymity at the level of press, radio, and film.

12. Anonymity is the spiritual foundation of all our Traditions, ever reminding us to place principles before personalities.

I am responsible. When anyone, anywhere reaches out for help, I want the hand of A.A. always to be there. And for that I am responsible. " Quoted from " The A.A. Grapevine, "*op. cit.*

[10] " Should you be the relative or friend of an alcoholic who shows no immediate interest in A.A., it is suggested that you write the Al-Anon Family Groups, Inc., P.O. Box 862, Midtown Station, New York, NY, 10018-0862, U.S.A. This is a world clearinghouse for the Al-Anon Family Groups, composed largely of the wives, husbands, and friends of A.A. members. This headquarters will give you the location of the nearest Family Group and will, if you wish, correspond with you about your special problems. " *Alcoholics Anonymous Comes of Age, A Brief History of A.A.* Alcoholics Anonymous Publishing, Inc , New York, 1957, 1985, page 285.

[11] Sister Ignatia's work is documented in *Dr. Bob and the Good Oldtimers, op. cit.,* pages 45-46, 185-199, 221, 245, 277, 283, 328.

[12] *The Language of the Heart. Bill W.'s Grapevine Writings, op. cit.,* pages 378-379.

[13] This is the title of a newly-published book on the life of Sister Ignatia by Mary C. Darrah, *Angel of Alcoholics Anonymous. Sister Ignatia.* Loyola University Press, Chicago, IL, 1991. There is a growing appreciation for the pioneering work of this saintly woman in offering hospital treatment to alcoholics long before most people in religious, scientific, or medical societies recognized addiction as a disease.

[14] Father Edward Dowling, S.J., was an early supporter of A.A. and a close personal friend of Bill Wilson. He is mentioned often in A.A. literature. See " Religion Looks At Alcoholics Anonymous, " by Edward Dowling, S.J. and the Rev. Samuel Shoemaker, in *Alcoholics Anonymous Comes of Age, op. cit.,* pages 253-271. See also Bill Wilson's testimonial to Father Dowling in June of 1960 after his death, in *Language of the Heart, op. cit.,* pages 364-366.

[15] The story of Father Pfau's recovery through following the A.A. way of life is documented in detail in *Prodigal Shepherd.* Ralph Pfau and Al Hirshberg, The SMT Guild, Indianapolis, 1958, Second edition, 1967.

Father Pfau devoted the rest of his priestly life to " carrying the message, " especially by serving the spiritual needs of alcoholics. He gave retreats all over the United States. These are published in books and tapes, *The Golden Books. Sobriety and Beyond,* and *Sobriety Without End.* He used the name " Father John Doe. " All titles are published by the SMT Guild, Box 313, Indianapolis, IN, 46206.

Father Pfau also established the National Clergy Council on Alcoholism in 1949 to educate the Catholic Community through an annual symposium on alcoholism and drug-related problems. At the 40th annual symposium at St. Louis University in June of 1988, the membership voted upon a resolution of the Board of NCCA to change the name to the National *Catholic* Council on Alcoholism.

" .. The NCCA Board of Directors sensed a major shift from our traditional focus on clerical recovery to our long-developing concern for all God's people with their many special needs in the face of alcoholism. Priests, who in past years were so pitifully isolated by stigma and denial, are receiving help in increasing numbers with general public acceptance. Church members who are

breaking new ground in difficult ministries are perhaps more in need of encouragement and the benefit of others' experience. School and parish prevention programs and help for impaired seminarians and novices are examples of such ministries. " *NCAA Blue Book*, " Proceedings of the 40th Annual Symposium. " June 20-23, 1988, St. Louis, MO, pages 6-7. This proposal was accepted and the present office of NCCA is: National Catholic Council on Alcoholism and Related Drug Problems, 210 Noel Road, Broad Channel, NY, 11693-1091

[16] Because of the stigma attached to alcoholism/addiction, Austin Ripley knew that priests were especially vulnerable to this sickness. He established Guest House to serve the needs of the Catholic Clergy. Since 1956, the Guest House Staff has served over 4,000 men from 150 dioceses, 70 religious communities, and 18 countries. These statistics are supplied by Guest House in their latest General Information Brochure, P O. Box 68, Lake Orion, MI, 48361, 1991. In addition to Primary Care, they offer Aftercare, Educational Programs, and Regional Seminars, as well as Information, Consultations, and Admissions.

[17] Women Religious are also especially vulnerable to the stigma attached to alcoholism/addiction. The treatment programs mentioned operate from the following addresses:

Sr. Patricia Mary Walsh, O.P., Emmaus House, 80 Norwood Ave., Elberon, NJ, 07740

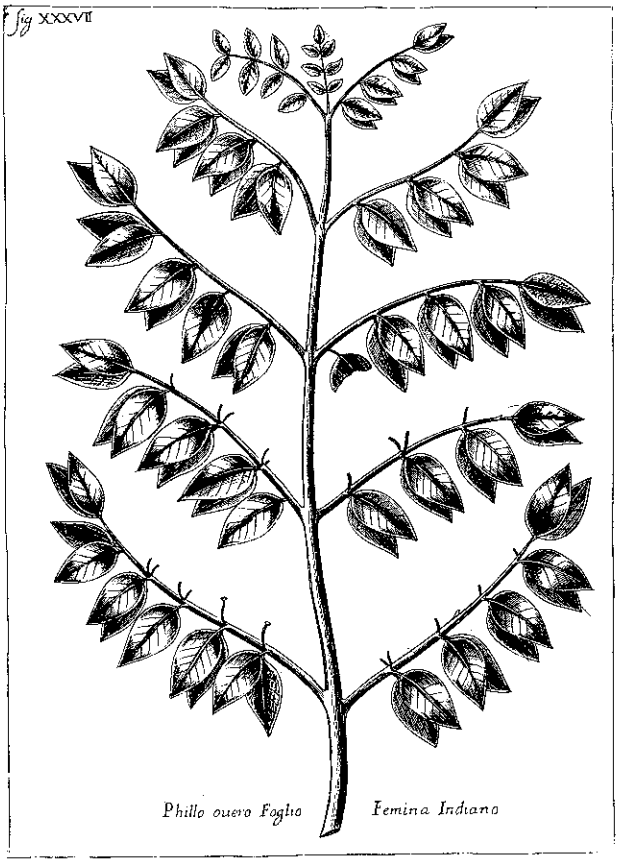
Sr. Mary Jean Kinney, B.V.M., Intercongregational Alcoholism Program, 1921 N. Harlem Ave., Chicago, IL, 60635.

Sr. Maurice Doody, O.P., Office of New Directions, 2341 University Avenue, Bronx, NY, 10468.

[18] In a recent conversation with Dr. Kurtz on August 21, 1991, at Ann Arbor, MI, he shared this story about Sr. Ignatia. Although Sister used a Sacred Heart Badge as a token, or " chip " to be carried as a reminder of the gift of sobriety *one day at a time*, " chips " of all kinds and descriptions are now available to commemorate anniversaries of years in sobriety. Some of these tokens/medallions carry prayers such as the Serenity Prayer: " God, grant us the Serenity to accept the things we cannot change, Courage to change the things we can, and the Wisdom to know the difference. "
Dr. Ernest Kurtz is the author of *Not-God. A History of Alcoholics Anonymous*. Hazeldon, Box 176, Center City, MN, 55012, Expanded Edition First Published 1991.

[19] FICHTER Joseph. " Spirituality, Religiosity, and Alcoholism, " *America*, May 21, 1977, Pages 458-461.

[20] U.S. Bishops' Pastoral Message on Substance Abuse, " New Slavery, New Freedom. " Quoted from *Origins*, CNS Documentary Service, November 22, 1990, Vol. 20: No. 24, page 393



JOSEPH C. MARTIN

Chalk Talk on Alcohol

I would like to add to what Father Klausen has just presented by looking at AA in a different sort of way. Bill Wilson and Doctor Bob were two ordinary men who became quite extraordinary. Bill Wilson was a financial innovator on Wall Street. Doctor Bob was a physician from Akron, Ohio. On his last drunk, Bill Wilson asked his physician, Doctor Silkworth, "I wonder if I might get sober by trying to help another alcoholic. You know that I am not weakwilled. I simply cannot control my intake of alcohol. I know that if I continue to drink, I will die. I have tried everything else suggested. Thus far nothing has worked. I wonder if helping another could help me."

Doctor Silkworth said: "Since nothing beats a trial but a failure, why not try?" Bill talked to men and women who drank as he did, alcoholics for whom nothing seemed to work. They all continued to drink.

He said to his wife one afternoon, in complete discouragement, "They're all still drinking."

Her reply: "You haven't had a drink in six months."

He had not enjoyed six months of continuous sobriety in his entire adult life. So he had discovered two things: by trying to help others, he was keeping himself sober. But the means he was using to help them was not working. He had told them, "Get right with God, and you'll be able to stop drinking." But he had the cart before the horse. He discovered that one had to quit drinking in order to get right with God! And he began to find out something about the nature of the illness: By depriving its victims of freedom, addiction cuts them off from the very purpose of existence, which is to love God, to love self, and to love others.

When he met Doctor Bob, he used another approach, suggested by Doctor Silkworth. "I wonder if something might not be wrong with people like you and me. Maybe our problem is basically is physiological."

That made sense to the scientific mind of the physician. Bill shared his drinking experience with Doctor Bob. Doctor Bob did the same, and as they got other alcoholics into their group, and they all shared their life experiences, they also somehow shared their mutual strength and hope; they began to stay sober. They discovered that all addicts had two things in common: they couldn't control their drinking: it controlled them, and it caused problems.



Through trial and error, they developed the Twelve Steps of Alcoholics Anonymous, in which, strangely enough, there is nothing new! They simply validated a set of principles that we have had from the beginning. *Alcoholics Anonymous is nothing more than unbaptized Christianity*. I have always said that my mother lived it but had never heard of it. The brilliance of AA and its effectiveness is in this: in the fifty-five years of its existence, not a word of the Twelve Principles has been changed. They are constants, and they work. So powerful is AA that it is now applied to other human ailments. There is brilliance in the very wording of the Steps: the word "alcohol" is mentioned once. You can substitute any other human problem in its place. The word "sobriety" is not mentioned at all. The second Step refers to a "restoration to sanity." All human aberrations involve irrational or insane behavior, and men and women have found that by following a path of sane, rational behavior, they began a process to get well.

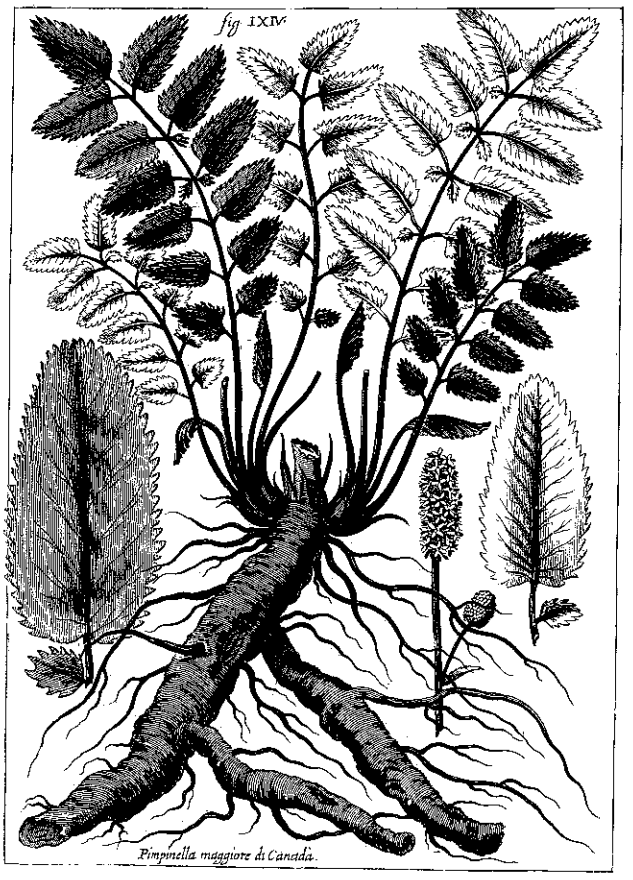
AA is the classical blueprint for sane, mature behavior. Thinking people *prepare* before they act. See how the steps of AA follow a pattern of preparation before execution.

Step One: you admit you are sick; you take on this way of life to get well.

You enter a room and see others who have gotten sober; you come to the conclusion that you can get well, too. You make a decision to turn your life over to God; you spend the rest of your life doing so. You make an examination of self, a complete moral inventory of life; you admit your wrongs to God, yourself, and another. You become willing to have defects of character removed; you ask God to remove them. You become willing to make amends to those you have offended, then you do it. You continue to take inventory and continue to admit wrongdoing to keep the slate clean and to prevent new beginnings. You determine to deepen your relationship with the God to whom you attribute your sobriety; you do so through prayer. And then the entire first Eleven Steps of AA are a preparation for the Twelfth, which is to fulfill one's human nature — to love your neighbor as yourself.

This powerful, scientific therapy has proven effective with drugs, with gambling, with over-eating, even with some emotional problems. It is God's way of getting His principles not only to Christians, but to non-Christians, to agnostics, even to atheists. AA took like wildfire throughout the United States, and is spreading, thank God, throughout the world. And so, like the silent, anonymous beast of burden that carried Christ into Jerusalem on the first Palm Sunday, recovered alcoholics will be the anonymous bearers of Christ's healing to those of His sheep afflicted with addiction.

Fr JOSEPH C MARTIN, S.S.
President of Ashley, USA



MARIO PICCHI

Drugs: A Provocation for Volunteers

In the world's ecosystem, drugs continue to be a radical challenge to the man of today, whatever his culture, his political choices, or his religious confession.

Above all, since drugs mean the denial of life, they become a challenge not only with respect to avoiding evil, but rather to promoting good.

The drug phenomenon, in its multifaceted aspects—production, traffic, consumption—is strictly linked to other great challenges for humanity: peace, development, social justice, the environment, the dignity of the person.

With the deep conviction about stopping the spread of drugs throughout the world, and promoting a conscious acceptance of global challenges that are proposed to modern man, there is a tendency towards the widespread development of voluntary groups as a new way of making policies, intervening side by side with institutions, in an operative, agile, and competent manner, never as a substitute, or contrast, but with sincere collaboration with those promoting humanity.

Nowadays, voluntary groups have received the approval and appreciation of many, inasmuch as it has been possible "to invent" in the face of spreading drug dependence and alcoholism. But there is still a long way to go—a very long way.

Almost every day we feel the need to ask ourselves questions and to promptly find new answers. Why this restlessness? Simply because the phenomena of drug dependence and alcoholism evolve rapidly and also because the voluntary groups aim at considering, not the substance, but above all man. It is the human being, in his entirety, who is placed at the centre of interest.

So one realizes that every person is different from another, that the needs of everyone change, as do therapeutic methods, so as to offer articulated, flexible, educational answers which are capable of reconciling man with life.

Because we want to place the voluntary groups at the centre of attention—their motivation, identity, work methodology, and targets—we realize that they are constantly provoked by the world of drugs.

In this sense, drugs become an incitement to create a new culture of poverty, solidarity, plurality, gratuitousness.

In fact, it is drugs that reveal to the world the new poor of today, who, on their way to Jericho, call upon life.

Surely, among those who use drugs there are both rich and poor people, educated people, and people who never have studied, established professionals and the chronically unemployed. But the poor, without culture or food, are the majority. And in any case, the hard-heartedness of feelings, conscious desperation, and poverty of hearts cannot be measured according to social class, personal records, or cultural level.

Every day we hear about wealth, the stock market, overall employment, and general progress—all said to be advancing. The numbers of cars increases as well as houses; people's health improves; and the elderly live longer. Few people have the courage to say that the number of poor people is increasing. But, as we are aware, the poor do not have any importance.

Nevertheless, Christ was one of them. He was born poor, he walked the streets as a poor man with the poor, was treated as a poor man and sent to death as a poor man. The challenge that rises to confront the man of today is to discover a voluntary group that knows how to share the sense of frustration, pain, fatigue, desperation, and loneliness of all these poor, starving, thirsty, sick, unemployed, foreign imprisoned, and addicted people among whom Christ conceals himself.

A new culture of poverty must sink in, above all among believers. Too often, nowadays, in a confusion of values, the evidence of faith does not fit in voluntary group work, with the risk of dulling the credibility of those said to be Christians.

To be a Christian is not a comfortable job, since it means above all to be poor with the poor. Engaged in the front line against drugs, the voluntary service is required to give this evidence of poverty: a poverty of material things (money is not useful: otherwise, it would be easier to solve the addiction problem), a lack of academic insurance, since it is necessary to create new professional staff in the field (that can also take advantage of official scientific and social culture, but has necessarily to measure itself against a concrete changeable reality).

While cynicism, corporativism, individualism, racism, and ethnic subjectivity are risks that touch us closely, a new culture of solidarity is needed. The voluntary service is asked to direct people to institutions, to mobilize primary and social solidarity resources, even with regard to those who appear most deviant and troublesome, less toler-

able, less recoverable, as the drug-addict may appear.

To start from the bottom, as the Gospel teaches, means that we have no choice but to hold out our hand, open our doors, thinking of whoever is in need.

On the way to Jericho, the Samaritan did not ask for an identification card, or a birth certificate, or a criminal record from the man abandoned, struck and hurt by the brigands; or ask him to sign an agreement or insurance for the future, before carrying him on his horse. He simply accepted the provocation that neither the priest nor the Levite had had the time or the courage to do.

But in order to practise concretely the values of solidarity, we have to discover and to promote the culture of plurality.

It is possible to put to good use our own identity, and at the same time respect that of others with whom we work, without looking for arrangements, competitiveness, and proselytism, but in promoting dialogue and cooperation.

The suggestion of a " pedagogy of difference " as the opposite of indifference, invites the assumption of the diversity of others as a value, resource, and reciprocal enrichment, a spur towards deep sharing and true collaboration.

I am talking about a difference that respects autonomy, creativity, and critical sense and enforces non-material goods that we can enjoy without destroying them, but rather increasing their value: nature, art, friendship, spirituality, discovery of the meaning of things and persons. Therefore, a difference as something not to tolerate but to protect.

In the fields of drug-dependence and alcoholism, we are faced with a plurality which requires comprehension, patience, and humility. We are asked by plurality not to be satisfied with what we have already obtained and to look for different and multiple answers, renouncing conventional formulae, even if they once appeared as the " non plus ultra, " but today are already obsolete.

This same plurality of needs must push us to offer immediate help, whatever is needed, but also to look further so as to prevent discomfort and suffering, contributing to changing society. Then the provocation becomes a strict warning: let's get to work on broad, important problems; let's invent and programme new strategies and new means; but let's also respond to immediate necessity, to the urgent needs of today, as we were taught by the great volunteers, from Doctor Candia in the Amazon to Mother Theresa of Calcutta.

Service, which is the volunteers' lifestyle, must then help society to rediscover the culture of gratuitousness. Our service as real volunteers must be disinterested, generous, specific, and founded on the pleasure of living for others.

In Cana, when Jesus transformed the water into wine, he left the spouse and the head of the table exchanging congratulations, without becoming in the eyes of the guests the protagonist of the episode, and so teaching a way of detachment, of discretion and gratuitousness.

The service chosen by the voluntary group as a lifestyle must therefore privilege the weakest persons, start always from their needs, be concretely qualified, serious, suitable for the time and place, seeking continually the most adequate means; a service which does not end in sporadic, illusive gestures; a service that has respect for the other, whatever his face may be, a service which does not seek any kind of reward, or look for compensation or personal advantage; a service capable of making evident, by the facts, the joy of its being.

To be opposed to the drug phenomenon means also, and above all, to prevent. But what models can we offer, what coherent, ethical models, so that our suggestions can reach the objectives of real prevention?

Probably the drug-addict's refusal to grow is motivated by the fact that many young people seem to be affected by an amotivational syndrome with respect to the meaning and quality of life.

If we know how to read the pages of our history, we realize that our society has been impoverished of a fundamental wealth: the teaching of freedom and of responsible love. Our youth needs this freedom and this love to heal the deep wounds that intolerance, disappointment, frustration of all kinds, violence, and drugs have left not only on their arms, but also their hearts.

Here, then, is one more occasion offered to the voluntary service: to rediscover new forms of latent, positive energy that may help the desert of so many hearts to flourish again.

How can we give back to life the sense of being a " gift "?

It seems to us that this is the last provocation: *to be able to offer real values and not surrogates to people, whose thirst for knowledge and whose new spiritual needs make their hearts a virgin land, available and enthusiastic.*

How much attention, what sweetness, what prudence, what a lot of effort is asked of us so that for everyone of them, their passage from desperation to hope may be a lasting and real journey, capable of becoming a useful path in the jungle, a light in the darkness for others as well.

It is a lesson for everybody. Also for us *volunteers*.

Fr MARIO PICCHI
President of the Italian Center for Solidarity, Rome

New Coverage Around the World

ABC 23-XI-1991



La reina de España fue la invitada de honor — La última jornada estuvo de... de la droga en todas las estructuras de la sociedad — Juan Pab...

La Reina asistió en e... al Congreso Internacional «Droga y alcoholism...

Su Majestad la Reina asi... Vaticano al Congres... «Droga y alcohol... cardenal Fio... del Cons... orga...

prevención ... la reunión

La reina Sofía: «Las drogas ... están presentes en n...

Ayer se clausuró la Conferencia d...

Il Mess...

Sala Stampa della Santa Sede — Data: 24 NOV 1991 — Pag...

EL MUNDO

...alcoholismo ... vida cotidiana»

El Vaticano busca una "respuesta constru... a la droga y el ...olismo

EL PAIS, 22-XI-91

Conferenza mondiale in Vaticano su alcolismo e tossicodipendenze

CITTÀ DEL VATICANO, 13. ...la specialisti di cento Paesi ...conferenza mondiale ...che si terrà ...

to, oltre che dell Aids, della ... qualità della vita, dell... ...a affrontiamo ...o realm... ...ntata d... ...interessi. Potremmo ...che è una guerra mondiale, ma che ...tua senza suscitare lo scandalo d'una ...fatta con bombe e armamenti» ...le ruolo della Chiesa — ha ...le Angelini — è cele... Non si evange... ...ndizion...

L'OSSERVATORE ROMANO

Sobre drogadicción

La Reina hablará hoy en el Vaticano

Il parere di Fiorenzo Angelini

...possibile ...vincere cont... alcool e ...ga

Avanti! 20-11-1991

Da Giovanni Paolo II un appello a smantellare il narco...

Il Papa: non c'è diritto alla ...

«L'uomo non deve abdicare alla sua ...

Le Vatican s'attaque à ...

Congreso vaticano

Droga, "nueva esclavitud de la sociedad"

...a pub... ...che ... ...Mi rife... ...ni di ...il pro... ...viene puro ...ne, avventura, ...ità sulla trama, sui ...son...ggi protagonisti. Non ...sa che con ciò si corra il ri... ...io di far dimenticare allo ...ttatore la gravità, il senso

...spacciatore vende la droga, m... non si droga? Perché è un ind... viduo che cerca solamente ... guadagno e basta, rovinando l... vita degli altri.

Da quale punto di vista il pro... blema dell'alcool si differenzi... da quello della droga?

Il problema dell'alcool è u... problema di quantità, vale a di... re di alcolismo. Quello dell... droga è invece di qualità

2000 experts et 30 ministres

Conseil pontifical pour la pastorale des services de santé, il a convoqué une conférence internationale : « Drogue et alcoo... l'extension des « structures de péché ». Un mal antique. Au Pérou, raconte un diplomate, une légende dit que les feuilles ... d'alcool croyan... en ...

... aux causes, cha... ...ce son explication : ...partie génétique », dit Bernard Hillemand professeur à Rouen.

Le large éventail des approches laisse l'impression d'un grand éparpillement. Deux constantes émergent pourtant. D'abord l'idée que la drogue et

CROIX L'ÉVÉNEMENT RELIGION pg. 14

14

LA CROIX L'ÉVÉNEMENT — RELIGION

Colloque

JEAN-PAUL II REF... LE « DROIT À LA DROGUE »

Science médicale, éthique et pastorale 2000 experts contre la drogue et l'alcoolisme

ROME DE NOTRE ENVOYÉ SPÉCIAL PERMANENT

Une plante avec de petites fleurs blanches, à cinq pétales, belle comme une azalée est l'objet du délit étudié dans la salle du synode par plus de 2000 experts. ... botanistes ont vite cédé ... role aux ministres, ... decins, sociolo... giens venus ... étudier l... « car...

DOMINGO 24-11-91 — SOCIEDAD — ABC. Pág.

Doña Sofía: «La droga frena la libertad del hombre»

...tad la Reina clausuró la Conferencia ...mal celebrada en el Vaticano

El Papa criticó duramente a los «mercaderes de la muerte» que siegan la vida de los jóvenes

...del Vaticano. Miguel Castellvi ... a la libertad, la convi... ...nómenos «sólo ...lítica pre...

la Conferencia Internacional sobre Droga y Alcoholismo de ... cano. Juan Pablo II señaló que estas plagas sociales ... amplitud y unas proporciones aterradoras no sólo ... número de vidas truncadas sino por la ext... ...Doña Sofía fue recibida por el Pa...

...vada ...treinta mi... de todo el ...estaba el ...Valverde ...ivada ...Reina Doña ...ayer por el

RASSEGNA STAMPA — la Repubblica

Sala Stampa della Santa Sede — Data: 24 NOV 1991 — P...

Wojtyla: "Drogar... è sempre peccato...

El Vaticano busc... "respuesta ...tiva" a la drog... ...l alcoholismo

EL PAÍS, viernes 22 de noviembre de 1991

VATICANO. Chiuso con Andreotti e D... Cuellar...

No... ...di...

di ROBERT...

Avvenire Domenica 24 novembre 1991