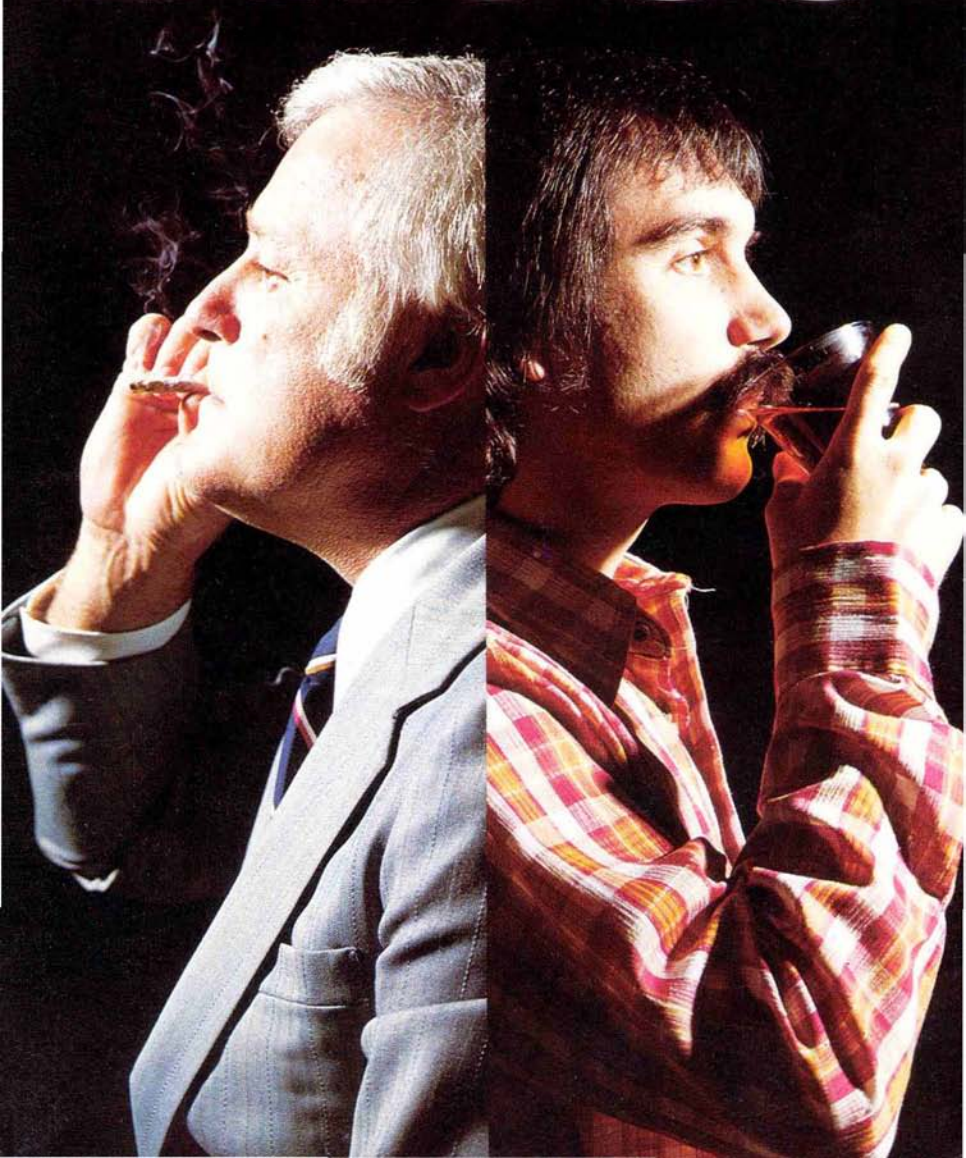
# THE DILEMMA OF DRUGS



# THE DILEMMA OF DRUGS

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# WHAT IS THE DRUG PROBLEM?

Once upon a time, so the old Indian parable goes, a king and his army passed by a city whose inhabitants were blind. He had a mighty elephant which he used in battle and to instil dread in any would-be opponents. A group of blind men wanted to learn what this elephant was. Since they did not know even the form or shape of an elephant, they groped sightlessly over the massive beast gathering information by touching some part of it. Each thought he knew what an elephant was, because he could feel a part.

Afterwards they compared impressions. The man who had touched an ear said: "It is a large, rough thing, wide and broad, like a rug."

Another who had felt the trunk said: "I have the real facts about it. It is like a straight and hollow pipe, awful and destructive."

A third man who had felt its feet and legs strongly disagreed: "It is mighty and firm, like a pillar."

Each had felt one part out of many, and had interpreted the animal from his vantage point. No one could perceive the whole animal, and consequently there was no agreement about what an elephant was.

### Drug Problem Is Many Problems

In much the same manner, various specialists and authorities have carried on a running debate over the size and shape, causes and solution to the drug problem. The sudden increase in illicit drug use by teenagers in the mid-sixties was something never before seen or expe-

rienced. Various drug experts and authorities descended on the problem to find out what it was and what to do about it. The trouble was they often dealt with different aspects of the problem. And each interpreted the problem from the viewpoint of his specialty, his area of expertise.

"It's a law and order problem," said policemen. "We need stricter laws and tighter enforcement."

"No, it's an educational problem," said teachers. "We need better drug information programs."

"It's a medical problem," said the doctors. "If only we could find out the chemical equation that explains the drugs' effects — then we'd be able to do something about it."

"It's a family problem," said the sociologists. "Children need to respect their parents, and parents need to discipline their kids."

And so on. For a while it seemed as though the experts would fare no better than the blind men, that no agreement could be reached.

But unlike the elephant in the parable, the drug problem isn't just passing through. It's been around for more than a decade and shows every sign of remaining for many more years to come. The experts have had plenty of time to double check their results, to analyze, compare, discard, and devise new hypotheses about the drug problem. And it is slowly dawning on more and more of them that they have been viewing the problem in its parts rather than as a whole. They are realizing the drug problem is all of the preceding — and more. It is the sum total of many factors — social, political, psychological, medical and moral. It doesn't conform to any simple description, and it defies one-shot solutions.

In this booklet we will consider the drug problem one part at a time. Our goal will be to eventually piece the diverse parts of the problem into a whole, a composite picture. The picture will not be complete because our knowledge is not complete. It will necessarily be a sketch rather than a detailed composition as the drug problem involves more data and factors than can possibly be compressed into a work of this size. But it is hoped that a perspective of the problem will emerge; that you, the reader, will come to a greater, if not new, understanding of drugs — what they are, who uses them, why, and what the alternatives are.

### Psychoactive Drugs

Technically speaking, a drug is any substance (other than food) that by its chemical nature affects the structure or function of a living organism.

Doctors usually refer to a drug in terms of its ability to treat physical and mental diseases. They stress the therapeutic value. But many laymen now focus on the negative connotations of the word. For them, "drug" has become a four-letter word of the worst kind, an epithet, an obscenity. When used in conversation it provokes strong emotional reactions. It's a good word to start an argument with, or even a fight.

The reason "drug" has become a dirty word is because millions of people are using certain drugs for fun and pleasure — for nonmedical reasons. These drugs are called mood-altering or psychoactive drugs. A psychoactive drug is any substance capable of modifying mental performance and behavior by inducing functional or pathological changes in the central nervous system.

Psychoactive drugs primarily affect emotions, feelings, sensibility, consciousness and thinking. They can alter moods by making the user depressed or euphoric. They can keep awake or put to sleep. They can alter our perceptions of time and space. The psychoactive drugs are the "drug problem."

When people talk about the "drug problem" they usually have in mind the illicit psychoactive drugs such as marijuana, LSD, mescaline, heroin, and cocaine, etc. They worry about the drug culture made up of potheads, heroin shooting galleries, psychedelic lights and posters, rock music, underground newspapers, hippies, smuggling, and drug pushers and the like.

### The Licit Versus the Illicit

But do they ever think of the psychoactive drug problem in terms of coffee, chocolate, wine, whiskey, cigars and cigarettes? Do they ever worry about the drug culture made up of alcoholics, cancer wards, cocktail parties, tobacco farmers, breweries and Madison Avenue?

They should. Because every one of the products in the second list contain psychoactive drugs — alcohol, nicotine, or caffeine. These drugs are mood-altering drugs, and like all other drugs have the potential to harm health.

Of course, most people wouldn't think of calling them drugs. Social lubricants and amenities, perhaps, but surely

not drugs. A survey conducted for the U.S. National Commission on Marijuana and Drug Abuse measured this "blind spot" in the public's perception of drugs. The survey found that 95% of the adults and 96% of the youth questioned regarded heroin as a drug, and 80% of both said the same about marijuana. But only 39% of the adults and 34% of the youth considered alcohol to be a drug, and the percentage dropped even lower for tobacco — 27% and 16% respectively.

"The imprecision of the term 'drug' has had serious social consequences. Because alcohol is excluded, the public is conditioned to regard a martini as something fundamentally different from a marijuana cigarette, a barbiturate capsule or a bag of heroin.... This confusion must be dispelled. Alcohol *is* a drug. All drugs act according to the same general principles. ... American drug policy will never be coherent until it is founded on uniform principles such as these, which apply to *all* drugs" (*Drug Use in America,* pp. 10-11).

### Distorted Reality

The most common form of drug abuse today ... is the abuse of the word "drug"! Millions of people are distorting reality by applying the word to those psychoactive chemicals which do not have society's seal of approval, while omitting it when talking about those that are approved for fun and pleasure. This is tantamount to recognizing trunks and ears as part of an elephant, while omitting the legs and tail.

This abuse of the word "drug" has caused more confusion and disagreement than almost any other mistake of omission or commission. It has spawned a number of myths and misconceptions about drugs — that frustrate all efforts to deal with them.

*Myth #1:* Society is mainly against the use of drugs for pleasure and seeks to eliminate all nonmedical use of drugs.

In fact, we operate under a double standard. "American drug policy has been predicated on one fundamental notion: that the societal objective is to eliminate 'nonmedical' drug use.... The nonmedical use of alcohol and tobacco would be inconsistent with the declared goal; thus, statutory vocabulary and social folklore have established the fiction that they are not drugs at all. Although use of these substances may arouse concern, they are not viewed in the wider context of drug use.

"Drug policy makers cannot truthfully assert that this society aims to eliminate nonmedical drug use. No semantic fiction will alter the fundamental composition of alcohol and tobacco" (*ibid.*, p. 20).

*Myth #2:* Present social policy is designed to protect and eliminate from society the most dangerous psychoactive drugs.

"If the standard for social policy were potential injury to individual health, barbiturates, alcohol, and tobacco would present the clearest cases for prohibition. Yet, the latter two are available for self-defined purposes, and the former is widely used in the practice of medicine.

"... Society has long been aware of the individual and social risk of alcohol use. Even with the effort now being made to inform the public of the risks of tobacco use, society still permits this drug to be widely available. In both cases, society clearly subordinates the risks inherent in such behavior, deferring instead to individual judgment" (*ibid.*, p. 22).

### Tip of the Iceberg

*Myth #3:* Illicit drug use comprises the biggest part of the drug problem.

In fact, just the opposite is true. For example, there are an estimated 500,000 heroin addicts in the United States. But there are at least 9,000,000 alcoholics and alcohol abusers! About 20% of all Americans over the age of 11 have tried marijuana — but at least three times that number have tried tobacco and some 38% of all adults currently smoke tobacco products.

When all the figures for drug use are added up, we find that illicit drug use — serious as it is — only makes up the most visible and controversial tip of the drug iceberg. Lying beneath the surface of public awareness lies a far more massive problem relating to the use of legal and socially accepted psychoactive drugs, particularly alcohol and nicotine.

### Everybody's Problem

*Myth #4:* The drug problem is primarily a youth problem.

It is true that the majority of marijuana users are teenagers. But the number of people over 30 using pot is growing. If current trends continue, the number of adult pot users will equal or exceed the number of teenage users by the end of the decade.

Teenagers comprise a minority of the users of most psychoactive drugs. Only 5-7% of all alcoholics are teenagers,

though the number of teenage "alkies" has been growing in recent years. Over 90% of those who regularly use tobacco are adults. Teenagers seem to take larger doses of amphetamines and barbiturates and their experiences are more dramatic and widely reported, but adult abusers of these drugs are far more numerous.

The drug problem is not just a youth problem — it's everybody's problem. "Young people have extended drug use patterns endemic to the entire society; they have not created new ones" (*Worlds Apart: Young People and Drug Problems,* p. 12). They have mimicked with illicit drugs what their parents are doing with legal drugs.

These myths persist partly out of ignorance and blindness and partly because the truth is sometimes stranger — and more distressing — than fiction.

"What ails the truth," wrote H. L. Mencken, "is that it is mainly uncomfortable, and never caressing .... Fictions are not truths; they are not even truths in decay. They are simply better-than-truths. They make life more comfortable and happy. They turn and dull the sharp edge of reality."

But we can't afford "better-than-truths." Additional thousands of people young and old will die every year as long as we refuse to face up to the sharp edge of reality:

We are a drug-using society. We sanction the nonmedical use of psychoactive drugs. We have a drug culture that encourages the use of drugs for recreation, for fun. We had the drugs and the culture long before the youthquake of the 60s. Young people didn't start the drug epidemic — they only intensified it by introducing new drugs.

The drug controversy, then, is not a matter of whether society will use psychoactive drugs — but *which* drugs will be accepted and legalized. It is not a question of prohibiting nonmedical use of drugs, but of proper and "safe" use of drugs for fun.

How will we decide what drugs should be used? And how much is "enough"? How do we cure drug use that is detrimental to health? How do we prevent drug abuse in the first place?

This is the drug dilemma.

# DRUGS: GOOD? BAD? OR BOTH?

Remember the "that's-good, that's-bad" routine?

"I just had an accident."

"That's bad!"

"But I escaped without injury."

"That's good!"

"But the car is a total wreck."

"That's bad!"

"At least I'm insured."

"That's good!"

"But the accident was my fault!"

"That's bad!"

Etc.

### Medicine and Menace

You encounter a lot of this when discussing drugs. They can relieve pain, prevent infection and save lives. That's good! But they can also destroy bodily tissue, impair healthy bodily metabolism, enslave by addiction and ultimately kill. That's bad!

The drug problem would be greatly simplified if drugs were not ambivalent, if they were very selective in their effects. If only drug X eased pain, but was not addicting, if only drug Y helped people relax but didn't adversely affect the brain or the liver.

But drugs don't work that way. Rather, their effects are varied and often ambivalent — they have the potential to simultaneously hurt or harm, depending on a number of variables. Because any drug can play both the role of medicine or health menace, any description of its effects is bound to sound like a "that's-good, that's-bad" routine.

Morphine presents a good example of a "that's-good, that's-bad" story. It came into wide-

Clockwise from top left: Wide World, AC Photo, AC Photo, American Stock Photo, Ernst Herb

spread use as a pain-killer during the American Civil War (1861-65). So effective was it as an analgesic for wounds and amputations that physicians sometimes referred to it as "G.O.M." — "God's own medicine."

That's good!

But in time morphine was found to be addicting — prolonged use followed by abstinence led to agonizing withdrawal symptoms. "God's own medicine" turned out to be "the Devil's own misery." Hundreds, if not thousands (accurate statistics are hard to come by), of war veterans inadvertently became drug addicts.

That's bad!

But that's the nature of opiates. And it illustrates a fundamental principle of pharmacology: any drug can be dangerous depending on the dosage, the duration of use, its purity and many other factors. No drug is completely "safe."

Recognizing this, the Federal government under the Controlled Substances Act regulates drugs according to their potential for abuse. The drugs are listed in five schedules in descending order of proven abuse potential and current medical usage.

Schedule I lists drugs deemed to have great abuse potential and no legitimate medical use. The score or so drugs on this list include heroin, LSD, mescaline, psilocybin and marijuana.

Schedule II lists drugs with great abuse potential that have legitimate medical uses. Drugs in this list can come under production quotas, and telephone and refillable prescriptions are prohibited. The psychoactive drugs listed here include the opiates such as morphine and synthetic opiates such as methadone and Demeral, certain barbiturates of the short-acting type, methaqualone and amphetamines. Altogether *over 1300* drug preparations are listed!

Schedules III, IV and V list drugs with correspondingly less proven abuse potential. The widely used tranquilizers Librium and Valium are in Schedule IV — a classification the manufacturers have protested. Altogether *over 3600* drug preparations are covered by these three schedules.

The list is not static. On the basis of new evidence and accumulated experience, drugs are often being added to the list. And drugs already listed are sometimes moved to higher schedules, indicating greater proven abuse potential.

The dual nature of drugs guarantees that the debate over their benefits versus hazards

will continue for some time. The manufacturer's protest over Valium and Librium — cited above — is an example. Another is the furor over a report issued at the close of 1975 by the U.S. Food and Drug Administration. A panel of experts studied nonprescription sleeping pills, relaxers and stimulants — all psychoactive drugs — over a three-year period. They found only one ingredient — caffeine — to be fully safe and effective for its intended use. The other 22 ingredients studied were considered to be ineffective, unsafe or in need of further study.

Drug manufacturers protested the report. They accused the panel of scientific bias and omission of evidence of the safety and effectiveness of their preparations. Some drug experts, on the other hand, would demur the description of caffeine as "fully safe." They would prefer to say its effects and hazards are minimal when compared to the other drugs tested.

### The Psychoactive Drugs

With this background in mind, let's examine the various categories of psychoactive drugs. Broadly speaking, they may be divided into five categories:

1) *The Narcotics:* Basically, this means the opiates: opium, morphine, heroin and codeine. There are also nonopiate, synthetic narcotics such as methadone and meperidine.

The word "narcotic" is derived from the Greek word *narkotikos* — that which benumbs or dulls the senses. And this sums up the principal medicinal uses of narcotic drugs; they act primarily on the central nervous system to relieve pain and promote sedation and sleep.

But narcotics also induce physical dependence — the likelihood of dependence varying with such factors as dose, route of administration (orally or intravenously), frequency and duration of use. Tolerance builds rapidly — but withdrawal symptoms, while unpleasant, are not fatal.

2) *The Sedatives, Barbiturates and Hypnotic drugs:* These drugs depress central nervous system activity. They are widely used to relax, relieve anxiety and bring about sleep.

The most widely used sedative is alcohol, although it has a wide range of apparently contradictory effects. Medically, alcohol has long been prescribed as a tonic, a sedative and a soporific. But today that role has been largely taken over by the barbiturates, minor tranquil-

# DRUG DEPENDENCE

"Addiction" is a word often tossed around in discussions about drugs. An increasing number of authorities and agencies working with the drug problem believe it ought to be tossed out. The World Health Organization did just that in 1965 because it had become another much abused term relating to drugs.

The WHO replaced "addiction" with the concepts of psychic and physical dependence to more accurately describe the complex factors involved between people and psychoactive drugs.

*Psychic dependence* is a craving for the pleasurable mental effects produced by a drug, such as euphoria, elation, sedation, hallucinations, etc. But psychic dependence can involve more than just a "craving." Human beings are motivated by more than just the desire to "feel something good." They have higher psychic motivations: a need for self-esteem, identity, a sense of belonging, a sense of purpose and meaning to their lives. As Isador Chein and associates pointed out in the classic work on heroin, *The Road to H:* "Involvement with the drug and the drug-using subculture gives them a sense of personal identity, a place in society, a commitment . . . a feeling of belonging to an in-group . . . a means of filling the void in an otherwise empty life" (p. 239).

Withdrawal from a drug producing only psychic dependence has no specific physical symptoms of suffering. But it can result in a mild or serious depression so unpleasant that the person may continue using it to forestall a letdown.

*Physical dependence* occurs when the body adapts to the drug in such a way that 1) tolerance is built — larger and larger doses are needed to produce the same effect; but 2) if the drug is then withdrawn, pain and physical symptoms occur — nausea, sweating, convulsions, etc.

Drugs producing psychic dependence — but no physical dependence — include cocaine, marijuana, hashish, amphetamines, LSD, psilocybin and mescaline. Drugs producing physical and psychic dependence include the opiates, barbiturates, nonbarbiturate hypnotics, minor tranquilizers and alcohol.

It is very rare for a person to become "hooked" on a drug the first time. Rather, drug dependence progresses from experimentation and occasional use to chronic and compulsive use over a period of weeks, months, or years — depending on the drug, the frequency, the dose, and many psychological and social factors.

izers, and other sedatives and hypnotics.

These drugs carry the risk of physical dependence, the potential varying from drug to drug. The use of barbiturate drugs can produce symptoms like those of alcohol drunkenness — nausea, loss of inhibitions, loss of coordination, violence, etc. The best-known symptom is the "hangover" experienced at times by even moderate users of these drugs. Convulsions, delirium tremens, and even death are among the risks habitual users face following abrupt withdrawal. Serious and even fatal injury to internal organs are among the dangers they face if they continue their habit.

3) *Central Nervous System stimulants (or CNS):* The oldest CNS drug is cocaine, a drug extracted from the leaves of the South American coca plant. It stimulates the central nervous system, producing euphoria — that is, a sense of well-being. It still has medicinal uses, but like alcohol it has been largely replaced by synthetic cocaine-like drugs.

The major synthetic stimulants are the amphetamines which have cocaine-like effects lasting longer than cocaine. Excessive doses of CNS drugs, especially if taken intravenously, produce hyperactivity, paranoid thinking, other psychotic thinking, and (sometimes) violent behavior. Both cocaine and amphetamines appear to induce psychic dependence in some people under some circumstances.

Caffeine and nicotine are also stimulants, but their effects are not as dramatic. Nor do their health hazards become as quickly apparent when abused as is the case with cocaine and amphetamines.

4) *Psychedelic or Hallucinogenic drugs:* Scores of substances with widely varying chemical compositions are known to radically modify awareness and perception, but the psychedelic drug that comes immediately to mind to most people is LSD. Others include mescaline (derived from peyote, a cactus plant) and psilocybin (derived from mushrooms). (Marijuana is sometimes included in this category. It has a wide range of apparently contradictory effects, but hallucinations is not one of them. For these reasons an increasing number of drug experts put it in a class all by itself.)

More than other psychoactive drugs, the effects of the hallucinogens depend on the expectations of the users, the setting in which they are

used, etc. Tolerance for LSD builds rapidly, but no withdrawal syndrome has been reported. The effects are primarily psychological; the lethal dose of LSD is not known. Before millions of young people turned on, tuned in and dropped out with LSD, it was being used on occasion to treat psychological disorders.

5) *Inhalants and Solvents:* Nitrous oxide — "laughing gas" — and ether first gained popularity as amusement; later they were adapted for surgical anesthesia. Organic solvents, such as gasoline, benzene, and related chemical substances, are deadly when inhaled for lengthy periods in unventilated areas. But brief inhalation can also produce many of the effects of alcohol intoxication and sometimes a hallucinogenic-like "trip."

### Just What Do You Mean . . . ?

So much for the drugs. Now let's examine *how* drugs are used for fun and pleasure. But, here again, we come to an area where improper word use and inaccurate terminology often obscure understanding. This time the form of drug abuse involves the words "abuse," "use" and "tried."

To illustrate the communication problem: A recent study reported in the media that "use" of marijuana among teenagers in America doubled between 1972 and 1974. But just exactly what did the media mean by "use"? Did it mean that twice as many teenagers had "tried" marijuana at least once? Or twice? Or five or ten times? Or did "use" mean that twice as many teenagers were smoking pot on a *regular* basis? Most newspaper and magazine accounts of the survey didn't clarify what "use" meant.

Even if they had, many people still would have misunderstood the facts. This is because they have private interpretations of words relating to drug use. Some automatically equate "drug use" with "drug addiction." Others read "drug use" to mean "drug abuse." And "tried" is translated to mean "regular user" or even "chronic user." These interpretations reflect the value judgments and opinions people have about drugs.

This tendency to misread statistics and misuse words greatly disturbed the U.S. National Commission on Marijuana and Drug Abuse. "The Commission has noted over the last two years that the public and press often employ drug *abuse* interchangeably with drug *use*. Indeed, many 'drug abuse ex-

perts,' including government officials, do so as well.

"Drug abuse . . . creates an impression that all drug-using behavior falls in one of two clear-cut spheres: drug use which is good, safe, beneficial, and without social consequence; and drug 'abuse' which is bad, harmful, without benefit, and carrying high social cost. . . . The matter is much too complex to be handled in such a polarized fashion. The Commission urges that the public and its policy makers avoid such labels and focus instead on the relative risks and social consequences of various patterns of drug-taking behavior" (*Drug Use in America,* p. 11).

### Drug-Using Behavior

The way drugs are used can be broken down into several categories:

The most common type of drug-using behavior is *experimental.* Here people try drugs out of curiosity or group conformity. They try a drag once or twice — and that's it. Most illicit drug use by teenagers falls into this category.

Then there is *recreational* use of psychoactive drugs. It occurs in social situations among friends or acquaintances. Recreational use may occur regularly, but does not usually get out of hand. A cocktail party for conservative, establishment types, and a weekend pot party for liberal counterculture people are two examples of recreational drug use.

*Circumstantial* drug use occurs when the user takes a drug out of a need or desire to cope with a specific situation. For example, a student may take a stimulant to stay awake and cram for finals, or a woman recently widowed may take a sedative to cope with the grief and anxiety.

Recreational and circumstantial drug use can lead to *compulsive* use where the user feels a psychological or physical need to take frequent and large doses of a drug. Drug taking dominates their life — they are slaves to it. The most conspicuous examples are alcoholics and heroin habitués. Less conspicuous, but no less serious, is the compulsive use of barbiturates and amphetamines.

Finally, there is *ritualistic* use of drugs for spiritual and religious experiences. The psychedelic drugs are the most commonly used. The user may move into compulsive use, but more often they are able to handle the drug. Many "get their head together" and kick drugs totally, choosing instead

nonchemical turn-ons and highs.

### "It Depends"

Drugs and the drug user can be put into neat — albeit not mutually exclusive — categories. But what happens when the drug and its user get together cannot be so easily categorized.

"If you ask what effect marijuana or LSD or the amphetamines or any other psychoactive drug has, the only reasonably honest answer is 'it depends,' " states Dr. David E. Smith, founder of the Haight-Ashbury Free Medical Clinic. "What it depends upon is the user's personality and environment and, to some extent, his previous drug experience.

"Any pattern of drug use is a complex interaction between the chemical factor, the personality of the user and the environment in which he takes the drug" (*Major Modalities in the Treatment of Drug Abuse,* p. 268).

Too often, descriptions of drugged behavior concentrate on the pharmacological effects to the detriment of such factors as "set" and "setting." *Set* is a person's expectations of what a drug will do to him, considered in the context of his whole personality. *Setting* is the environment, the physical and social circumstances in which a drug is taken. Many drug users insist that the combined effects of "set" and "setting" can overshadow the pharmacological effects of a drug, particularly the hallucinogenic drugs and marijuana. They say these two variables explain why the psychological effects of drugs differs from person to person and from time to time in the same person.

### Drug Hazards

The most hazardous psychological effects of psychoactive drugs are toxic psychosis, true psychosis, and panic reactions.

1) Toxic psychosis is a nonspecific reaction of the brain to an overdose of anything that affects it. Toxic psychoses are temporary: they disappear when the toxin leaves the body. They are characterized by confusions, disorientations and hallucinations, and it is almost always perceived as an unpleasant experience.

2) True psychosis is an impairment of psychological functioning that continues after all traces of the drug have left the body. Drugs can precipitate a psychotic reaction, but of and by themselves they don't cause psychoses.

This distinction is important.

Psychosis doesn't come packaged in a marijuana joint or LSD tablet. Rather, people are variously susceptible to develop negative psychosis under stress and the influence of drugs. The problem is in the mind — the drug exposes or unleashes it.

(It should be noted that no hard-and-fast line separates psychosis from nonpsychosis. Mental stability and sanity can't be quantified, can't be measured in precise psychological equivalents to inches, feet, ounces, or pounds. The whole question of when someone becomes psychotic is quite involved and hotly debated.)

3) Panic reactions are the most common of the three. Any drug can trigger a panic reaction, but the panic doesn't seem to have much basis in pharmacology. That is, a panic reaction is not so much the effect of the drug, but, rather, the person's reaction to what he feels the drug is doing to him. It is also influenced by the environment in which the drug is taken. In other words, panic reactions are heavily influenced by "set" and "setting."

Initial fears about the drug make the person interpret his perceptions to mean he is dying or (more commonly) losing his mind. Panic reactions, once they get going, can be self-perpetuating and can attain awesome intensity. But a skilled person who understands the nature of drugs can talk the panicking person down from his bad trip.

### Physical Effects

Experienced drug users insist that with proper handling and training these three psychological hazards can be avoided. They emphasize that the user is the most important factor in determining the outcome — good or bad — of a drug trip.

Even if a person can handle his drug experiences, he may still pay a price for his drug trip in the form of bodily harm or enslavement through tolerance and dependence. The price tag can be quite high.

Remember, no drug is free of physiological effects. Unfortunately, the physical dangers of drugs have been distorted. A lot of "scientific evidence" has been propagated about drugs that could better be called *science fiction.* As a result, young people often disregard the dangers of drugs. All warnings are considered to be "scare tactics" even when they are accurate. The classic example of scientific fact versus fiction is the case of marijuana.

# MARIJUANA AND TOBACCO- A STUDY IN HYSTERIA AND HYPOCRISY

Sooner or later, every discussion about drugs comes to marijuana. And in this booklet it might as well be sooner, for "pot" is the most controversial psychoactive drug in use today. And the most misunderstood. As such, it offers an excellent example of the myths, misconceptions and double standards that plague the drug issue.

### Indian Hemp

Marijuana is derived from the female plant of the weed *Cannibis staiva,* commonly known as Indian Hemp. The term "marijuana" is often applied to the whole plant, but it properly refers to the flowering tops, stems and leaves.

For thousands of years hemp has been cultivated for its fiber, which is used to make fine linen, canvas and rope. And for almost as long, man has realized that hemp has something more — it also contains an intoxicant that is now known as *tetrahydrocannabinol,* or THC. When ingested or inhaled, THC produces a variety of changes in feelings and perceptions that down through history have delighted its users and horrified its detractors.

Cannibis can be consumed in many ways. It can be brewed as a tea, baked into cakes and cookies, and even used as a flavoring or seasoning in common foodstuffs.

But the most widely prac-

Ernst Herb

ticed method of consuming cannibis is to smoke it. For this use three separate grades of marijuana product have been traditionally recognized:

1) *Bhang* — a weak preparation of leaves and flowering tops. It is roughly comparable to the marijuana grown and harvested in the United States and usually has a THC content of less than one percent.

2) *Ganja* — a stronger preparation that includes some of the potent resin as well as the leaves and flowering tops. It is roughly comparable to marijuana grown in Mexico and Jamaica; the THC content is usually around two percent to four percent or more depending on the mixture.

3) *Charas* — the highly potent resin of the plant that is known in most countries as hashish. It contains five percent to 12 percent THC.

### Marijuana Through the Centuries

This versatile plant, yielding both fiber and fun, has a long documented history. A Chinese treatise on pharmacology purporting to date from 2737 B.C. contains what is usually cited as the earliest reference to marijuana. The first reference to marijuana in India is found in the *Atharva Veda* (believed to date back to the second millennium B.C.). Another early reference (c. 650 B.C.) appears on certain cuneiform tablets unearthed in the Royal Library of Ashurbanipal, an Assyrian king. Herodotus, the Greek historian, wrote in the 5th century B.C. of the Scythians and other people using marijuana.

So marijuana use was quite extensive in Asia and Asia Minor at a very early date. Hemp cultivation appeared in Europe before the rise of the Roman Empire, but it seems it was grown primarily for its fiber, though its intoxicating properties were not unknown. It spread to Africa long before Europeans settled and colonized the continent.

In A.D. 1545, the Spaniards introduced hemp into Chile. The settlers of Jamestown, Virginia, brought hemp with them in 1611. Cannibis flourished as a major crop in North America until the Civil War — again, primarily for its fiber. George Washington grew hemp on his Mount Vernon plantation. Its decline in the second half of the nineteenth century was the result of economic factors — such as competition from cheap imported hemp — not controversy over its drug qualities.

Not that hemp's potential as a drug was unknown or ignored

in the United States; on the contrary, hemp was valued for its medicinal uses. "Between 1850 and 1937 marijuana was quite widely used in American medical practice for a wide range of conditions. *The United States Pharmacopeid,* which through the generations has maintained a highly selective listing of the country's most widely accepted drugs, admitted marijuana as a recognized medicine in 1850 under the name *Extractum Cannabis,* or Extract of Hemp..." (*Illicit and Licit Drugs,* p. 405).

Cannibis at one time was recommended for a host of ailments such as neuralgia, rheumatism, tetanus, epidemic cholera, migraine headaches, mental depression and even insanity. Marijuana cigarettes were marketed as an asthma remedy (a use that modern research indicates may be valid). As medicine progressed in the 20th century, better means were found for treating a number of ailments for which marijuana had been prescribed. But until the 1930s the claim that marijuana had some therapeutic value was not seriously challenged in the United States.

In short, cannibis was widely available in the United States from colonial times. It was primarily grown and used for fiber, less often for its therapeutic value, and infrequently for its intoxicating qualities.

### Cannibis Becomes Taboo

In the second decade of the 20th century, the pattern of marijuana use in the United States shifted. While the medical use of the plant declined, the nonmedical, or recreational use, increased. Mexican immigrants and West Indian sailors introduced the practice of smoking marijuana in the border and Gulf states. More opiate users began to smoke pot. Prohibition in the 20s may have also spurred an interest in marijuana as people took to bootleg liquor and experimented with other psychoactive drugs. But use of pot was never as widespread as it was to become in the 60s and 70s.

But it became widespread enough to generate some hysterical headlines, sensational stories in the press and drastic legislation on the state and federal level. Pot became incorrectly labeled as a "narcotic" drug — which it is not ("narcotic" properly refers to the opiates) — and by 1937 every state had outlawed it. In that year Congress also adopted the Marijuana Tax Act which superimposed federal regulatory

statutes over the state statutes. Pot was relegated to the list of illicit and, ergo, dangerous drugs. It was also dropped from the United States *Pharmacopeia* (although it is still listed in the British *Pharmacopeia*).

"Not once during this entire period was any comprehensive scientific study undertaken in this country of marijuana or its effects. The drug was assumed to be a 'narcotic,' to render the user psychologically dependent, to provoke violent crime, and to cause insanity" (*Marijuana: A Signal of Misunderstanding,* p. 14). In fact, no *medical* testimony in favor of the antipot act was given in the 1937 Congressional hearings considering the legislation. The only physician to testify, representing the American Medical Association, actually *opposed* the bill because marijuana was considered a medicine in good standing.

The only studies on marijuana prior to the 1937 Marijuana Tax Act were conducted outside the United States. The first was the Indian Hemp Drugs Commission Report (1894). The second, the Panama Canal Zone Military Investigation (1916-1929), was prompted by marijuana smoking among military personnel stationed there. While neither report gave pot a clean bill of health, they debunked certain myths — such as the claims that pot was addicting and produced unpremeditated crimes of violence. It was these myths that heavily influenced the passage of the statutes prohibiting the use of marijuana in the United States.

In other words, marijuana was tried and convicted in 1937 of high crimes and misdemeanors against society and the body on flimsy, erroneous or nonexistent evidence. The stage was set for the great marijuana maelstrom that arose in the 60s and rages to this day.

### The War of the Weed

When the great youth rebellion of the 60s erupted, the use of illicit drugs became one means of flouting "establishment" values and protesting the Vietnam war. Marijuana in particular came to symbolize the counterculture movement. It quickly became obvious that there was a tremendous gap between what pot really did and what parents and medical and law enforcement authorities said it did. The use of marijuana escalated from a debate over the purely medical issues to a hyper-emotional controversy filled with political and social implications.

Parents and assorted "establishment" authorities told all

kinds of horror stories — addiction, violent behavior, insanity — that young people from their own personal experiences knew to be fallacious. Credibility and generation gaps grew ever wider.

Although its known risk to health was much less than had been established for alcohol and tobacco, extraordinarily harsh punishments were meted out for pot smoking. A minor might spend a night in jail if he was caught with liquor, but if he was busted for possessing pot he could get six months, two years — even life imprisonment, depending upon the state.

Pot stimulated a lot of adrenalin, slogans, epithets, demonstrations and arrests. But it also stimulated a lot of research. As a result, we now know much more about marijuana than ten years ago. But by no means has the new research resolved the issue.

A major problem is that the various research projects are sometimes conflicting or inconclusive in their findings. For example, one study will conclude that pot damages chromosomes, a second report will disagree, and a third report can't say one way or the other.

Worse yet, every report is subjected to highly partisan interpretation. It seems that each side of the debate is so emotion-

***VARIOUS FORMS*** *of marijuana are displayed below. The torn bag shows marijuana as it is shipped in brick form.*

*AC Photo*

ally involved, and has staked so much — its life-style, its morality, its righteousness and superiority — on winning the debate that it pounces upon any evidence that vindicates its position while discounting, ignoring or ridiculing any evidence that doesn't.

In any event, the jury in the *re*trial of pot for high crimes and misdemeanors has yet to render a final verdict. More research needs to be done, and is being done.

### What Pot Is and Does

Marijuana is often classified as a hallucinogen — an LSD-like drug — though, in fact, it is unique both chemically and in its effects on the mind. Hallucinations are not a common effect of marijuana, but (like alcohol hallucinations) a symptom of overdose.

Marijuana's effects on the human mind are highly subjective and depend on a number of factors, including dose, potency, method of use, set and setting, tolerance and duration of use.

Generally speaking, marijuana produces a free flow of thoughts, alters normal patterns of perception, intensifies sensuousness, relaxes and releases social inhibitions. Like alcohol, it does affect coordination and cognitive processes (thinking skills, linear logic), but unlike alcohol does not appear to cause brain damage in heavy doses.

To a large degree, pleasurable use of marijuana is a learned technique. Many regular pot smokers will admit they didn't particularly enjoy their first experience with marijuana. (But they are quick to rhetorically ask: How many people enjoyed their first taste of tobacco, liquor or even coffee?) It all gets back to the fact that set and setting are all important in determining whether a person will ultimately have a good experience or a bad one. If a person has positive expectations about the weed and takes it in a pleasant atmosphere, he is more likely to enjoy the experience. But if he is afraid of being caught, or has moral compunctions, his trip may be unpleasant — it would be better for him to not try the drug at all.

Low to moderate doses of the drug produce minimal side effects. Generally, pulse rate increases, the eyes redden, tear secretion is decreased, and there is dryness in the mouth and throat.

### Fact Versus Fiction

Many of the horror stories told about pot are distortions of

the facts or totally erroneous. Thus, contrary to common belief:

1) Pot does not necessarily or inevitably lead to harder drugs, particularly heroin. This stepping-stone theory has been discredited in study after study. "To say marijuana leads to any other drug avoids the real issue and reduces a complex set of variables to an oversimplified premise of cause and effect," concluded the U.S. National Commission on Marijuana and Drug Abuse. "If any one statement can characterize why persons in the United States escalate their drug use patterns . . . it is peer pressure. Indeed, if any drug is associated with the use of other drugs, including marijuana, it is tobacco, followed closely by alcohol.

"The fact should be emphasized that the overwhelming majority of marijuana users do not progress to other drugs. . . . Only moderate and heavy use of marijuana is significantly associated with persistent use of other drugs" (*ibid.*, pp. 87-88).

2) Pot doesn't cause violent or aggressive acts. "Rather than inducing violent or aggressive behavior . . . marijuana was usually found to inhibit the expression of aggressive impulses by pacifying the user, interfering with muscular coordination . . . and generally producing states of drowsiness, lethargy, timidity and passivity" (*ibid.*, pp. 72-73).

The British *Cannibis* report concluded that "the evidence of a link with violent crime is far stronger with alcohol than with the smoking of cannibis" (p. 13).

3) Heavy use of pot may exacerbate amotivational behavior, that is, to lethargy, laziness, indifference, but it doesn't cause it. "Heavy marijuana use is a convenient symptom for an amotivated person to add to his list [of amotivational pursuits]. . . . If marijuana were the cause of amotivation, one would expect that amotivation could be cured by taking away the marijuana, but this is not the case. Therefore, it makes more sense to see amotivation as a cause of heavy marijuana smoking rather than the reverse" (*The Natural Mind*, p. 60).

4) Pot is not physically addicting and there are no withdrawal symptoms. However, there appears to be at least some psychological dependence among very heavy, long-time users. "In these users, withdrawal does induce symptoms characteristic of psychological dependence. The anxiety, restlessness, insomnia,

and other nonspecific symptoms of withdrawal are very similar in kind and intensity to those experienced by compulsive cigarette smokers" (*ibid.*).

Among proponents of the drug, there are several misconceptions about the supposed *benefits* of pot. Chief among them is the idea that pot is some kind of aphrodisiac. There is no scientific evidence to substantiate the claim; if anything, there are scattered reports that heavy doses of pot may somewhat depress the libido. If marijuana does enhance the experience of sex for some, it is probably because that's what they expected from pot — again, the matter of set and setting.

At the risk of being repetitive, it must be emphasized that people have highly individualized reactions to drugs and the matter of set and setting is very important. What people get out of pot depends on the environment in which it is taken and the expectations of the user.

### No Drug Is Totally Safe

Though many fears about pot have been based upon fictions, that doesn't mean it is a completely safe, hazard-free drug. Any psychoactive drug is potentially harmful to the individual, depending on the intensity, frequency and duration of use. Marijuana is no exception.

Some of the hazards have already been touched upon. Novice users, because of anxiety or conflict with conscience, may have an unpleasant experience. Heavy, long-time users may become psychologically dependent on pot.

There is also some evidence that very heavy use over a prolonged period may lead to acute psychoses — but the rate of such incidence is certainly no higher than for alcohol.

Among heavy users of pot — no more than two percent of the pot-smoking population — evidence exists of damage to the pulmonary and cardiac systems. Some researchers believe that marijuana smoking may parallel tobacco smoking in terms of its long-term effects on the heart, lungs and circulatory systems. Pot smoking has been implicated by some researchers in diseases such as emphysema, chronic bronchitis, lung cancer and heart attacks. Unfortunately, isolating pot as the culprit has been difficult because most pot-smoking subjects suffering from these diseases *also* smoke cigarettes!

The *Interim Report of the*

*Canadian Commission of Inquiry* (1970) took note of pot's possible long-term hazards and recommended a cautious approach until more evidence accumulated. The first report of the *U.S. National Commission on Marijuana and Drug Abuse* (1972) recommended "that intensive research be conducted on the carcinogenic properties of the components of marijuana smoke.... Further work should be conducted to analyze the effect of marijuana smoking on pulmonary function.... The relationship of marijuana smoking to cardiac diseases, particularly coronary artery disease, should be studied" (p. 174).

The British *Cannibis* report (1968) drew the parallel between the experience with tobacco and marijuana, observing that "the danger that smoking may produce lung cancer was for a long while not apparent. It is not possible to say that long continued consumption, medically or for pleasure, of cannibis, or indeed of any other substance of which we have not yet had long experience, is free from possible danger" (p. 15).

### Double Standard

Thus, social policy has been to defer decriminalization of pot pending more evidence. From a scientific point of view, this is a prudent course, but from a social and moral point of view it is hypocrisy. For the parallel between marijuana and tobacco leads to the logical conclusion that society should have "delegalized" tobacco some time ago. There is no lack of evidence about tobacco's harm to the human body. It is a *proven* health hazard. In fact, a stronger medical case can be made against tobacco than pot. But tobacco has a nonmedical factor going for it that pot lacks: widespread social acceptance.

### Tobacco Instantly Popular

The tobacco weed is the New World's gift — or perhaps a better word is curse — to the old. Columbus and other early explorers were amazed to meet Indians who carried rolls of dried leaves that they set afire and smoked. Sailors on these explorations tried this unusual mind-altering drug and liked it. More than like it, they came to *crave* it, and so carried tobacco leaves and seeds home with them, and included them in provisions for succeeding expeditions to other parts of the world. Within a few decades, the tobacco plant and habit had literally been spread around the world.

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***NO HYPOCRISY*** *here! But society in general debates pot use while condoning tobacco.*

Tobacco proved to be immediately popular wherever it was introduced — too popular, it seems, for many secular and religious authorities of the day. They considered it a strange, noxious weed, dangerous to public morals and health. Pope Urban VII issued a formal bull against tobacco in 1642, and Pope Innocent X issued another in 1650. But in 1725, Benedict XIII annulled all edicts against tobacco because they had failed to dissuade laymen and clergy alike from using it — and because the Pope himself had a penchant for snuff.

Most of the states of Europe at one time or another prohibited tobacco. And Sultan Murad IV decreed the death penalty for smoking tobacco in Constantinople in 1633. But to no avail. Its use continued to spread. In the Ottoman Empire, even the fear of death could not overcome the craving for to-

bacco. "For thy sake, tobacco, I would do anything but die," wrote Charles Lamb in the 18th century. The Sultan found that many of his subjects were willing to risk that last step — as the chronicles of his savage slaughter of smokers testifies.

### More Than a Vice?

No country that has ever taken to tobacco has ever given up the practice. And some researchers say there is a good reason for this — the nicotine in tobacco becomes something tobacco users crave.

Some have gone as far as to suggest that tobacco users can develop a dependence for the drug — psychic, at least, and maybe even physical. The nicotine-dependence syndrome of tobacco has been espoused by the Addiction Research Unit (ARU) of the Institute of Psychiatry (London, England) — a unit initially established to study heroin addiction. Further, the Royal College of Physicians reported in 1971 that "The smoking habit certainly conforms to the definition of drug dependence given by Paton: 'Drug dependence arises when, as a result of giving a drug, forces — physiological, biochemical, social or environmental — are set up which predispose to continue drug use' .... The remarkable spread of smoking throughout the world and the difficulty that most smokers find in abstaining suggests that the craving has a pharmacological basis" (*Smoking and Health Now,* p. 112). And, as many people who have tried to kick cigarettes know, there can be withdrawal symptoms: anxiety, nervousness, etc. But they are certainly mild and nonlethal compared to withdrawal from heroin or alcohol dependence.

### A Definite Health Hazard

Its psychic dependence potential aside, nicotine remains an extremely dangerous drug for human consumption. "Nicotine is one of the most toxic drugs known and is usually thought of as a poison, being used as such in insecticide sprays and ranking with cyanide in rapidity of action" (*The Pleasure Seekers,* p. 155). In toxic doses it can cause death by paralysis of the respiratory muscles.

Of course, the amount of nicotine in one cigarette is far below lethal levels. But it is enough to affect the central nervous and cardiac systems in ways detrimental to optimum health. And tobacco smoke has scores of other dangerous chemicals. Tobacco smoke is a mix-

ture of gases and minute droplets in which nearly one thousand compounds have been identified. Some of the more hazardous include tar, carbon monoxide, nitrogen dioxide, ammonia, benzene, formaldehyde and hydrogen sulphide.

This potent combination of chemicals has been clearly demonstrated to be a major cause of emphysema, chronic bronchitis, lung and throat cancer, and heart disease — to name a few. "Cigarette smoking is now as important a cause of death as were the great epidemic diseases such as typhoid, cholera, and tuberculosis.... Holocaust [is] a reasonable word to describe the annual death toll [in Britain] of some 27,000 men and women aged 35-64 from the burning of tobacco" (*Smoking and Health Now,* p. 10). The American Lung Association estimates that at least 300,000 Americans die prematurely each year from the effects of smoking. Millions more live on with crippled lungs and overstrained hearts.

### . . . But Also a Big Business

These are *real* horror stories based on exhaustive research. So where is the hysteria, the clamor for tight enforcement of anti-tobacco laws? Why aren't people who work for tobacco companies and advertising agencies harrassed, arrested and convicted for purveying and pushing a dangerous drug? Why isn't tobacco banned because it poses a threat to public health, a menace to our way of life?

The reason is because tobacco *is* so much a part of our way of life. It has been around so long and is so popular it isn't even perceived by most people to be a drug. And there are vested interests in its use. Globally, it is a billion-dollar industry. It is a big cash crop in the United States, and its sale a big business and major source of tax revenue in many countries.

To be sure, there was an uproar when the *Report of the Surgeon General's Advisory Committee on Smoking and Health* was published in 1964. There was a decline in smoking in the United States from 523.9 billion cigarettes in 1964 to 511.2 billion in 1965. Many people switched to filter-tipped cigarettes, pipes, snuff and chewing tobacco. These decreased the health hazards — but did not eliminate them. The drop in cigarette smoking was short-lived. In 1966, the number of cigarettes consumed rebounded to a new record, 528.7 billion, and has continued to grow ever since. Last year

American smokers laid down $14 billion to smoke 559 billion cigarettes.

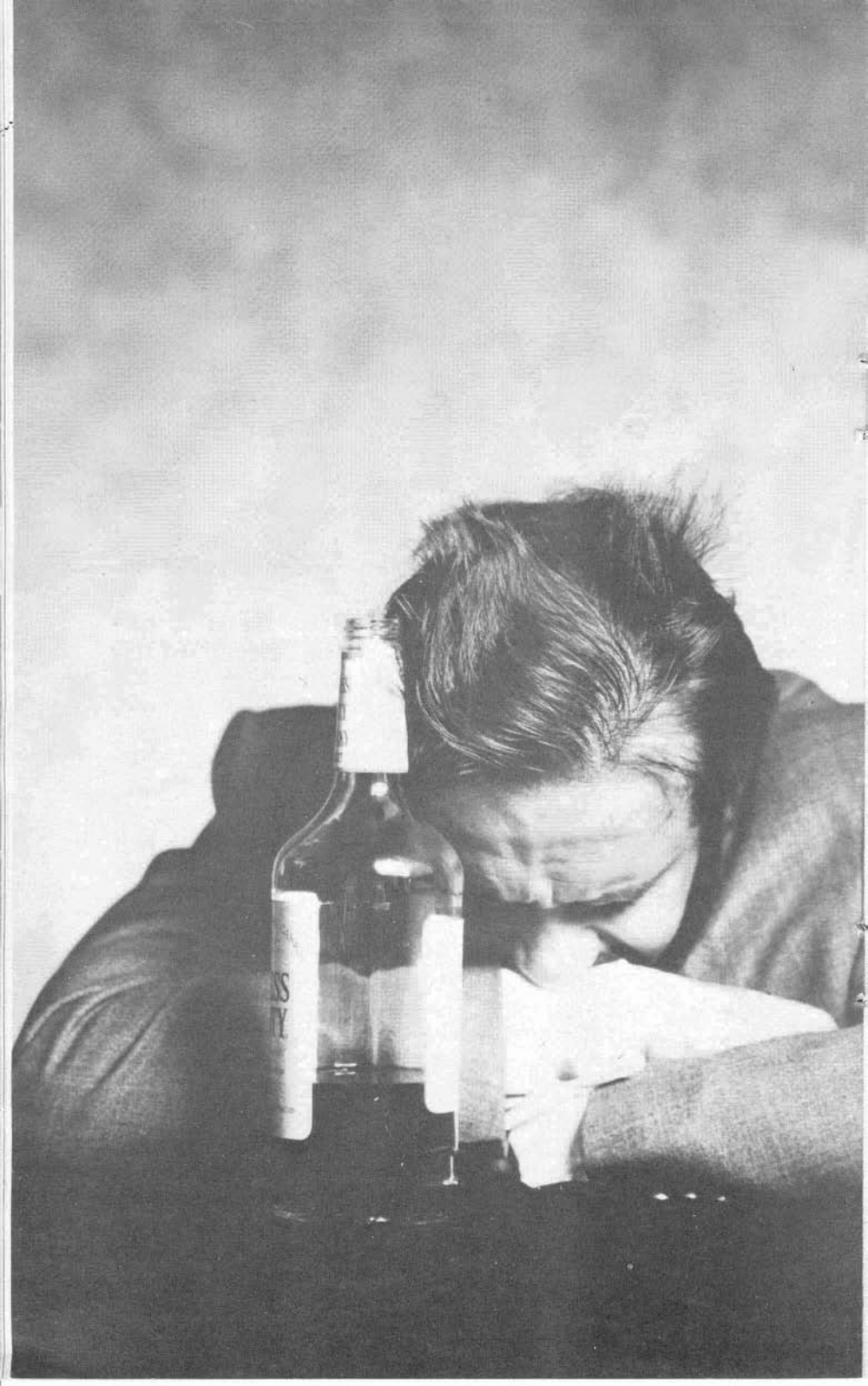
Fortunately, there are some encouraging trends. *Per capita* consumption is down — slightly. And continued pressure by public health groups has led to a ban on television advertising in the United States and Great Britain. Tobacco companies in several countries are compelled to print warnings on packages and in ads about the health hazards of the product they are selling.

In the United States, nonsmokers are pushing for a bill of rights to greatly restrict public smoking. And Sweden has undertaken the ambitious goal of eradicating smoking in a generation through a massive education program.

**Remove the Double Standard**

But a double standard still exists in terms of overall drug policy. The fact of the matter is, tobacco was tried and *convicted* of high crimes and misdemeanors against the human body — and got out on "parole" (a few restrictions on its promotion). The contrast with marijuana shows that, all too often, social policy is based upon how popular and acceptable a drug is — not upon the health hazards. Laws have been enacted on the basis of cultural prejudice and preference — not medical fact.

Marijuana will continue to polarize and alienate teenagers and parents, the counterculture and the establishment, until it is considered in the context of the *entire* drug problem which includes tobacco. Parents must see their *own* drug problem if they are ever to understand the drug problems of their children. Society must face up to the problems and dangers of the drugs it allows, if it is ever to cope with the drugs it condemns. What Jesus Christ said about judging in general (see Matthew 7:1-5) could — with slight modification — be said of the pot issue: "Why do you see the reefer that is in your brother's mouth, but do not notice the cigarette that is in your own mouth? Or how can you say to your brother, 'Take that weed out of your mouth!' when there is a more dangerous weed in your own mouth? You hypocrite, first take the cigarette out of your own mouth, and then you will see clearly (no smoke in your eyes!) to take the reefer out of your brother's mouth."



# ALCOHOL- THE MOST POPULAR DRUG

Alcohol is the most widely used drug in the world. And by every standard of measure, it is also the number one drug problem. Because it is so much more widely used than all other psychoactive drugs, the damage done by its abuse is also far greater than the damage done by the abuse of all the illicit psychoactive drugs combined.

In 1972, nearly 10 liters (2 2/3 U.S. gallons) of absolute alcohol were consumed per capita of drinking-age population in the United States. Canadians quaffed down almost 8½ liters per capita, and Britons nearly 7 liters. The French lead all peoples in absolute alcohol drunk with a per capita average of 22.6 liters!

Alcohol is a big headache for many people — and for society as a whole. There are an estimated nine million alcoholics and problem drinkers in the United States. The ones on "skid row" represent only three to five percent of the total number of alcohol abusers. The other 95 percent plus have "skid row between the ears," but otherwise live and work at all levels of society.

In terms of crime, enforcement of laws relating to alcohol represents a far greater problem than enforcement of the narcotic drug laws. In 1973, over 484,000 arrests were made for narcotic drug law violations in the United States. But nearly 654,000 arrests were made for driving under the influence of alcohol, over 1,189,000 arrests were made for drunkenness, and nearly 184,000 were made

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for other liquor law violations. That's over 2,000,000 arrests relating to alcohol — more than four times the number made for narcotic drug law violations!

What is there about alcohol that makes it so popular — and so potentially dangerous? The exact alchemy of alcohol in the human body and mind is still unknown. Scientists still don't know *how* biochemically the drug works its magic and misery. But we know enough to be able to generalize the effects of alcohol in three respects: 1) mood altering and intoxicating properties; 2) buildup of tolerance and addiction; and 3) damage to human health.

### Alcohol and the Brain

The observable effects of intoxication, such as slurred speech and unsteady gait, are caused by alcohol's effect on the areas of the brain that control them. The concentration of alcohol in the blood needed to affect the brain is lower than what would significantly affect other tissues.

Alcohol is metabolized, or broken down and burned, by the body at a fairly constant rate. The drug accumulates in the body in ever greater concentrations when a person drinks at a faster rate than the body can metabolize it. Popular methods of sobering up, such as administering hot coffee or cold showers, don't really work, because they don't significantly speed up the metabolism to clear the bloodstream of the drug. The only real remedy for restoring sobriety is time.

In a 150-pound man, alcohol is burned up at the rate of about one drink (containing ¾ ounce of alcohol) per hour. That amounts to one shot of spirits, a glass of wine (5 oz.), or a pint of beer. Quaffing down liquor at this rate will result in little, if any, accumulation of alcohol in the blood — although there will be subtle changes in mood from the first few sips.

By the time alcohol concentration in the blood reaches .05 percent (the result of two drinks per hour), definite changes are usually noticeable. A person will feel more carefree as he is released from many of his ordinary anxieties and inhibitions.

At a blood alcohol concentration of .10 percent, voluntary motor actions usually become clumsy. By .20 percent the drinker is staggering and stumbling, all emotional inhibitions are depressed, and he may easily become angry, or shout, or weep. At .40 percent to .50 percent, the drinker lapses into a

coma. Higher levels will block the centers of the brain controlling breathing, causing death.

### The Hook: Tolerance and Addiction

So much for the effects of one drinking binge. If that binge is followed by another, and then another — if a person consumes large amounts of alcohol over a long period of time — he will acquire what is called "tolerance." This means that higher and higher doses are required to produce the same effects. A heavy drinker may need up to three and four times as much alcohol as a moderate drinker to "unwind" or "get smashed." He can drink a fifth (or perhaps even a quart) of whiskey a day without gross signs of intoxication.

Consequently, the heavy drinker may not perceive he has a problem at all. Since he is still able to hold his job and carry on a relatively intelligent conversation, he thinks he can handle his liquor. What he doesn't realize is that he can't *stop* handling his liquor — he can't do without alcohol. His increased tolerance has also led to increased dependence. He's hooked on alcohol — he's an alcoholic.

Should an alcoholic abruptly "go on the wagon," he is likely to suffer far more than the hangover headache he experienced the first time he got drunk. The easy road back to sobriety has been blocked by withdrawal symptoms that are excruciating: nausea, profuse sweating, trembling, convulsions, and, in chronic cases, hallucinations and delirium tremens which can be fatal.

### The Plot Sickens: Health Devastated

This is only the beginning of sorrows for the alcoholic. If heavy drinking persists for years, he will suffer inevitable and irreversible damage to his mind and body. He may suffer from any number of alcohol-related illnesses. And his resistance to disease in general will decline, so that he becomes a victim of illnesses not directly connected with alcoholism.

Alcoholism has been implicated in several disorders of the brain, stomach, intestines and related organs. One of the most common is cirrhosis of the liver which afflicts about 10 percent of all alcoholics. Other afflictions include gastritis, gastric ulcers, chronic diarrhea, pancreatitis and alcoholic hepatitis.

### The Other Side of the Coin

So far we have only discussed the bad effects of alcohol. There

is a good side as well. For one thing, over 90 percent of all drinkers are *not* alcoholics. And a report presented to the U.S. Congress in 1974 (titled "Alcohol and Health") advised: "There is no evidence that the moderate use of alcohol is harmful to health." In fact, according to Dr. Morris E. Chafetz, director of the National Institute of Alcohol Abuse and Alcoholism: "Moderate drinkers, as a statistical group, live longer than abstainers or ex-drinkers."

Chafetz further stated, during a White House seminar on alcoholism, that moderate drinkers had a lower rate of heart attacks and that moderate drinking "may be physically, psychologically, and socially beneficial to active and institutionalized older people."

### A Tale of Two Cultures

Anyone looking at the twisted lives of alcoholics would conclude that alcohol, the substance of and by itself, is surely an evil thing.

It is not alcohol, however, that is wrong, but the wrong *use* of it. This can be illustrated by comparing the drinking patterns of two countries — France and Italy.

As mentioned before, the French consume by far the largest amount of alcohol per person per year: 22.6 liters (or 6 gallons) of absolute alcohol. This is a 50 percent larger amount of absolute alcohol than that consumed by the second ranking nation, Italy.

Many Frenchmen drink wine in the manner most of us drink water. Workmen often imbibe wine all day long, without serious social censure or visible side effects. The hidden toll is quite serious, however, as the French lead the world in deaths due to cirrhosis of the liver (328 deaths per million people per year), and have the highest alcoholic rate in the world — 9.4 percent.

Meanwhile, across the Alps, the second-highest wine (and total alcohol) consumers in the world, the Italians, drink an average of 111 liters of wine per person per year, yet amazingly they have the lowest alcoholism rate in the Western world, 0.4 percent. Why is there this vast gap in alcoholism between the two largest alcohol consuming nations?

Although virtually all Italians drink alcohol, very few of them drink outside the home. Four out of five (80 percent) drink only at mealtime and among family members. Drunkenness is frowned upon by church and family in Italy, whereas overdrinking is more

# DRYING OUT THE ALCOHOLIC

Over half of all alcoholics who seek therapy can be helped. And successful treatment of alcoholism is not limited to just one program. This suggests that there is no one single cause of alcoholism. Human problems and personalities come in all sizes and kinds, and programs must be tailored to people, and not people to programs.

Alcoholics Anonymous has developed one of the most successful programs for helping alcoholics.

In AA members help each other maintain their sobriety and share their recovery experiences freely with anyone who has an alcohol-related problem. While AA has no formal religious dogma, most members rely on a spiritual approach. The program is summed up in the "Twelve Steps," which begin: "We admit we are powerless over alcohol — that our lives have become unmanageable." The second and third steps are to "Come to believe that a power greater than ourselves could restore us to sanity," and "make a decision to turn our will and our lives over to the care of God *as we understand Him.*"

AA recognizes that their own program is not effective with all alcoholics. Some persons respond better to other approaches such as individual or group therapy. Group therapy, in particular, is widely used because it brings together people who are suffering the same problem and hence understand each other's troubles and are able to see through the excuses and rationalizations that stand in the way of recovery.

Another useful mode of treatment has been the establishment of therapeutic communities. Some, such as Synanon, offer a permanent home and way of life to the alcoholic who is not willing or able to stay sober in general society. Others are halfway houses which provide food, emotional support and advice for several weeks or months as the alcoholic recuperates and prepares to reenter society and lead a "dry" life in a "wet" world.

Rehabilitation efforts have been frustrated by the moral stigma attached to alcoholism, as well as the tendency to treat it as a purely legal problem that can be corrected with more laws and stricter enforcement. However, more and more officials are becoming enlightened to the true nature of alcoholism and are making provisions to send alcoholics to treatment centers instead of jails.

socially acceptable (even considered "masculine") in France.

The main influence on Italian moderation is the powerful family example. The influence of the Church is not of major importance, since other strongly Catholic nations (Ireland and France) have two of the highest alcoholism rates.

### American Attitude Ambivalent

In the United States, unlike European and Third World societies, there is no one cultural or religious tradition governing alcohol consumption. Instead, we find a rather confusing mélange of mores, ranging from the hard-drinking, hard-living "frontier mentality" to the Puritan prohibition of the Bible Belt.

Countless ethnic groups within the American melting pot behave radically differently in their manner of initiating children to alcohol. On one extreme, the Irish American has an alcoholic rate two or three times the national average, which reflects the heavy drinking pattern in Ireland. Other ethnic groups drink as often, but avoid imbibing alcohol in any appreciable quantities. In some states, the majority abstain totally. For instance, in a Bible Belt state, such as Alabama, people consume just one fourth of the alcohol (per capita) that residents of California consume.

### Family Pattern

The key to alcohol education in America — as in Italy and France — is cultural influences, particularly the example of the family. Most alcoholics are the children of alcoholics, while the children of parents who drink in moderation have only a two percent chance of becoming alcoholics.

If parents are strict abstainers, however, their children's chances of alcoholism lie somewhere between 2 and 25 percent. If the children of abstainers don't themselves abstain, they tend to drink secretly, furtively, rebelliously, and more intemperately than children who are taught the right example of moderation. Abstainers have a hard time resisting a drink in such a heavily drinking society unless they are armed with home training in examples of moderation.

In the wake of the latest wave of youth drinking, many parents have severely punished their children for drinking before age 18; or they have ignored the "OK addiction," thankful that their children were not on marijuana or harder drugs. Either extreme is wrong.

### The Jewish Example

Jewish Americans have the highest percentage of drinkers in the United States, but the *lowest* percentage of alcoholism. In New York City, there are more Jews than in the nation of Israel, yet they comprise less than one percent of that city's alcoholics.

Drinking is almost universal among the Jews, starting ceremonially, for males, on the eighth day of life (circumcision) when wine is touched to the baby's lips. The habit of drinking continues on every weekly Sabbath, the holy days, weddings, funerals, and numerous other social and ceremonial occasions.

This formula has all but eliminated alcoholism from among the Orthodox Jewish population. The Jews developed their "winning game" for avoiding alcoholism because their culture has been heavily influenced by the Bible.

### Alcohol and the Bible

The Bible shows that alcohol can be an enjoyable amenity in life or a curse, depending on how it is used. Solomon wrote: "A feast is made for laughter, and wine maketh merry" (Eccl. 10:19). And in Psalm 104, God is praised for making possible "wine that maketh glad the heart of man" (verse 15).

But the Bible fully recognizes that it can be a source of grief as well as joy. Solomon also wrote: "Wine is a mocker, strong drink is raging: and whosoever is deceived thereby is not wise" (Prov. 20:1). Proverbs 23:29-32 is a warning to those who "tarry long" at wine. These scriptures point out the problems of *excess* drinking, but don't explicitly proscribe moderate drinking.

Many New Testament scriptures approve of wine. As a matter of fact, Christ's first recorded miracle was to transform over 100 *gallons* of water into wine! (John 2:1-11). Some say that this was grape juice — but this argument finds no substantiation either in the original Greek or what we know about Jewish drinking customs in Christ's day. The same Greek word for "wine" in John 2 is used by Paul in Ephesians 5:18, where he exhorts: "And be not drunk with wine, wherein is excess." (Can one get drunk on grape juice?)

The Biblical instruction, then, is *moderation.* The Word of God recognizes both the benefits and the dangers in alcohol, and exhorts users to exercise the middle path of prudence and discipline.

# HEROIN- THE ENJOYMENT OF NEGATIVES

Heroin is a semisynthetic derivation of opium. Opium, in turn, is the milky exudate of incised, unripe pods of the poppy *Papaver Somniferum.* Used in ancient Egypt as a medicine, it spread to Greece and Asia Minor. Arab traders carried it to India and China where it was used medicinally and for pleasure.

In time, opium addiction became a serious problem in China. In the eighteenth century the Chinese government attempted to prohibit the importation, sale and use of opium. The British, however, were conducting a very lucrative trade in opium grown in India and sold in China. They opposed the ban and that led to the Opium War (1839-1842).

Morphine, named after Morpheus, god of dreams, was isolated from opium in 1803. In addition to being used as a pain killer during the American Civil War, it was used in Hong Kong as a "cure" for opium addiction — until it was discovered that morphine was even more addictive. In 1898 heroin was developed and marketed as a more potent analgesic than morphine and a highly effective cough suppressant. When it was discovered that heroin relieved morphine and opium withdrawal symptoms, it was touted as a "cure" for morphine addiction! Obviously, the true nature of *all* opiates was not realized in those days. Twelve years passed before medical authorities recognized that heroin was as addictive as morphine.

Because of this naive under-

Ernst Herb

standing of opiates, no serious effort was made to regulate or prohibit their use until the early twentieth century (with the exception, as already noted, of China). As a result, during the nineteenth century, the United States, Great Britain, Canada and most other countries could quite properly have been described as a "dope-fiend's paradise."

### Dope Fiend's Paradise

Opium, morphine and codeine were legally and conveniently on sale at low prices. Physicians dispensed them directly to patients; drugstores sold opiates over the counter without a prescription. Those who were unable or unwilling to patronize a local store could order opiates by mail. Hundreds of patent medicines containing opium or morphine were on the market. Most of the opium was legally imported by upright church-going businessmen, or homegrown by patriotic farmers.

Morphine was prescribed for coughs, diarrhea (opiates are mildly constipating), dysentery, and a host of other afflictions. For a great majority of these conditions, morphine, if nothing else, was highly effective in calming the user. Doctors used it then the same way doctors use Librium and other tranquilizers and sedatives.

Many users were women, as opiates were recommended for menstrual cramps and menopausal distress. In Britain, opiates (notably laudanum) were administered to quiet crying babies. And morphine — regarded as an effective, economical and less destructive substitute for alcohol — was used to treat alcoholism. By the end of the century, an estimated one in 400 Americans (mostly housewives) were addicted to opiates.

Finally, in 1914, the United States enacted the Harrison Narcotics Act placing heroin under federal taxing and regulatory powers. On paper, it only controlled — not prohibited — the marketing of opiates. But in fact it was interpreted to prevent doctors from administering opiates to drug-dependent persons.

The results of the new law were apparent within a few weeks. Thousands of drug habitués flocked to hospitals and sanitariums. Sporadic acts of violence broke out as people desperately tried to get their fix. A black market arose to fill the demand; prices soared. But the number of drug users didn't significantly decline.

So in 1924 Congress tightened

up the Harrison Act by prohibiting the import of heroin altogether, even for medical use. From then till now, the American approach has been to treat heroin dependence as a legal, rather than a medical or psychological problem. It has ignored the most basic principle of capitalist economics: demand determines supply, not vice versa. Every campaign waged against heroin has failed. Heroin remains a major social problem because the dependence that half a million or so users have is so compelling it overrides all concerns and risks — even the threat of arrest and incarceration.

### Nature of Heroin Use

The drug is sought, valued, *craved* because of the euphoric "high" it produces. But this high is not exactly the enjoyment of a stirred-up, zestful state. The opiate high is a state of reduced awareness of all external sources of stress, whether it be pain or a personal problem. Opiates increase the sense of detachment from unpleasant experiences. Isidor Chein and associates have stated that heroin's primary attraction for its user is its ability to grant relief, provide an escape from distress and the problems and anxieties of life.

"It is, in the main, an enjoyment of a Nirvana-like state unpreceded and unenriched by the pleasure of getting there. It is an enjoyment of negatives. Awareness of tension and distress is markedly reduced. Contact with reality diminishes .... Addicts feel 'out of this world' and content, as if all of their needs have been taken care of. Here, in 'the junkie paradise'... their bodies are satisfied and sated" (*The Road to H*, p. 232).

But repeated use of heroin leads to withdrawal symptoms which are very unpleasant (but not fatal). The user continues his habit not only for the high, but to avoid the low. But tolerance also develops. Users must continually escalate their dosage to get the desired effect. This can become ultimately too expensive and impractical. Sooner or later the user reaches a plateau where, in the vernacular, he "can keep normal but can't get high." He has reached the point where he can avoid withdrawal symptoms — but he gets no kicks.

He has two choices. Some users will level out their dosage, being content to forfeit the pleasure as long as they can also forego the pain. But most junkies will resort to a "free period" — they will withdraw

# HEROIN HERESIES

The popular view of narcotics is that they devastate the body as well as lead to dependence. In 1956 Dr. George H. Stevenson and his British Columbia associates exhaustively reviewed the medical literature on the subject. Their conclusion: "To our surprise we have not been able to locate even one scientific study on the proved harmful effects of addiction."

Numerous studies since have confirmed the fact that heroin is not physiologically harmful. It doesn't destroy the brain, liver or other vital organs. The most noticeable side effect is constipation. Otherwise, as Dr. Vincent P. Dole of the Rockefeller University, a pioneer in methadone maintenance, put it: "Cigarette smoking is unquestionably more damaging to the human body than heroin."

What *is* harmful about the drug is the user's life-style. If an unsterile needle doesn't bring on hepatitis, the characteristic neglect of his health will take its toll. Malnutrition is a common debilitation among dope fiends, a by-product of the drug's suppression of hunger. And most of his money goes to support his habit, leaving little for his health.

Even the idea of death by a "heroin overdose" is coming under question in some medical circles. There is a paucity of direct, reliable evidence that it is possible to fatally overdose with heroin. There are, however, recent studies indicating a remarkable resistance on the part of habitual users to overdose.

Then what are habitual users of heroin dying from? Some believe that heroin can kill when taken in combination with other drugs such as alcohol. (Rock singer Janis Joplin officially died of "heroin overdose," but she also guzzled alcohol.) Also, dope fiends don't call the heroin sold on the street "junk" for nothing: it has been so "cut" or diluted with ersatz that it is five percent or less heroin and 95 percent quinine, milk sugar, mannite, and who knows what else. These adulterants separately or in combination with heroin may be the real cause of fatalities.

Whatever the cause of death, heroin pronounces a life sentence of dependence. Even if it causes no organic damage, it remains a prison from which few are able to escape.

from the drug, suffer withdrawal misery for a few weeks. This lowers their tolerance so they can recapture the high they valued so much at a far lower dosage. Their roller coaster drug ride then starts all over again.

### The Problem Is People

So far we have focused on the pharmacology of the drug. But it is important to realize that the drug is not the primary problem — it's only the symptom of other problems. "Many social planners, government leaders, and American citizens view the drug abuse problem as a simplistic, linear, cause-and-effect relationship," writes Dr. David Smith (with Dr. George Gay) in *It's So Good, Don't Even Try It Once.* "The bitter fact is that heroin dependence and other drug abuse patterns are merely the symptoms of a complex medical, psychological and social disease whose causes are interwoven with the very fabric of American society" (p. 3).

The primary problem is people. The U.S. National Commission on Marijuana and Drug Abuse concluded that "The prevalence of high degrees of dependence seems to rest more in the nature of the soil than in the characteristics of the seed. The individual user, rather than the drug, is the core of the problem; compulsive drug use is generally thought to occur most frequently in emotionally unstable persons who have difficulty in coping with reality" (*Drug Use in America,* p. 141).

Dr. Stephen Pittel describes heroin dependent people as "relatively immature, lack[ing] impulse control, and [they] are more or less incapable of maintaining intimate and enduring relationships, except perhaps to gratify their own narcissistic desires" (*It's So Good, Don't Even Try It Once,* p. 139).

Isidor Chein and associates state: "One has to remember that, though mature in years, he [the drug user] has not yet successfully managed the developmental hurdles of infancy (the acquisition of what Erikson has called 'basic trust') and that, unlike the infant who has before him the task of achieving self-acceptance and trust in others, the addict is already carrying the psychic scars of his own failures and of the social world that has failed him" (*The Road to H,* p. 382).

### Multi-Modality Approach

The reasons *why* a person has failed to develop the necessary psychological equipment to face life vary from user to user. Con-

sequently, there is no one factor and no one approach that can successfully treat the problem. Dr. Jerome Jaffe emphasizes that because there are so many complex routes to heroin dependence, many different types of treatment modalities are necessary in a successful overall program.

"Multi-modality programs not only have the advantage of providing patients a variety of treatment methods at the start, but also of being able to move patients easily from one treatment regimen to another whenever appropriate. Patients who do not succeed in one form of treatment have the alternative of entering another. Not surprisingly, multi-modality programs seem to have a higher retention rate than programs with only a single method of treatment" (*Drug Use In America,* p. 324).

One modality has been the therapeutic community represented by Synanon, Phoenix House, Odyssey House, and others. Unfortunately, only the most motivated drug users seem to hang in and kick the habit. But even most of these seem to stay cured only as long as they remain in the community. There is a very high relapse rate for "graduates" who leave the sheltered, nurturing confines of therapeutic communities and try to live in the cruel, cold world.

Another modality is methadone maintenance: the substitution of the synthetic opiate methadone for heroin. It assuages the craving for heroin and avoids the agonizing withdrawal symptoms. It creates what is known as cross-tolerance: if a methadone user is tempted to use heroin, he finds that the methadone blocks the "high." Methadone can be taken orally (versus the usual intravenous route for heroin), and only one dose a day is needed for the user to live a fairly normal life. Critics of the program point out that with methadone the person merely switches drugs — he is still drug dependent.

### British System

Then there is the British system. Appalled by the failure of the American approach — treating heroin usage as a legal problem — the British, in 1924, took another tact. The marketing of opiate drugs was regulated. But drug dependence was viewed as a medical problem, and hence doctors could legally treat patients by supplying the necessary opiate.

"The results can best be described as magnificent," con-

cluded the Consumer Union Report on *Licit and Illicit Drugs*. For decades, the number of drug dependent people has been proportionally only a tiny fraction of the American number. There was an upsurge of new addicts in the 60s, but it was "kid's stuff" compared to the corresponding increase experienced in the United States. It peaked in 1968 at 1,746 — compared to over 500,000 in the United States — and then declined.

The British approach has also largely obviated the problem of the black market. At worst, only a moderate black market for opiates has ever existed. Anytime the price gets too high, the user can go to a clinic and get a low-priced fix. British narcotic users have not had to become thieves or prostitutes to finance their habits as have so many of their American counterparts.

Many American experts say that is fine for the British, but it won't work in the United States because of different socioeconomic, cultural and ethnic conditions. It might stabilize the problem, but it won't cure it.

Whatever approach is tried, the fact remains that less than five percent of all people who become dependent on opiates are able to kick the habit through therapy.

The prognosis for the heroin-dependent person is not optimistic. Their death rate is over twice the normal average. This is due to the perilous life they must live to sustain their habit, and not the pharmacology of the drug itself (see box on page 48). Traditional treatment approaches have had a very low cure rate — five percent or less. Not that this means "once a junkie, always a junkie." Curiously, there is a phenomenon known as "maturing out." Around the age of 35-40 a number of addicts gradually slip out of the drug-dependent life. But many users are hooked on the drug till the day they die.

Why do some "mature out" while others are fixed for life? Why are most treatment programs abysmal failures? We can't say. Obviously, more remains to be learned about the opiates. And more important, we need to better understand the opiate *user*. Until then, heroin will remain a vexing social problem. Heroin dependence is on the rise again. As one paper headlined the trend: "In War on Drugs, It's Back to the Trenches."

# UPPERS AND DOWNERS- THE HIDDEN DRUG PROBLEM

According to the U.S. National Commission on Marijuana and Drug Abuse: "Overuse of barbiturates is America's hidden drug problem, comparable perhaps to the scope of hidden opiate dependence around the turn of the century" (*Drug Use in America,* p. 220).

Barbiturate production rose from 3.1 billion 300 mg. dosage units in 1967 to 5 billion in 1971 — an increase of 30 percent. Over 500 tons of barbiturates were produced in the United States in 1971. The Food and Drug Administration (FDA) estimates that 20 percent of these find their way into the illicit market. Over 2,500 barbiturate drugs have been synthesized; some 50 commercial brands are presently marketed, although, according to the American Medical Association, five or six types would suffice for most clinical purposes.

AC Photo

### "Dry Alcohol"

Barbiturates depress the central nervous system. Their first medical use was to induce sleep, replacing alcohol, bromides, the opiates and other drugs. They are classified into three categories: 1) *long-acting,* which are slow in taking effect, but which produce a more profound and prolonged sleep because they are also slow in being metabolized and excreted; 2) *short to intermediate acting,* which effect the user sooner — and are

more rapidly metabolized (they tend to eliminate the "barbiturate hangover" of the long-acting types and are used by people who have difficulty falling asleep, but once asleep, tend not to easily wake up); and 3) *very fast-acting,* which take effect within about ten minutes when injected, and last about 15 minutes (they are often used for short minor medical procedures). Barbiturate fiends seeking a quick effect almost always choose the third kind.

Continued and excessive use of barbiturates results in many of the classic symptoms of alcohol intoxication: slurring of speech, staggering, loss of balance and quarrelsome disposition. For this reason, barbiturates are referred to as "dry alcohol." An alcoholic suffering an alcoholic hangover can find relief by taking barbiturates.

Taking barbiturates *with* alcohol is a fairly common but potentially deadly combination known as "Geronimo" in the drug culture. The drugs in combination have a synergistic effect — they potentiate each other so that 1 + 1 = 5 (or 10 or even 20) instead of 2 in terms of impact on the central nervous system.

Physical dependence doesn't develop with the dosages normally used in medical practice (100-200 mg. a day). But excessive use can lead to tolerance and drug dependence. Withdrawal symptoms are similar to those of alcohol and are potentially fatal.

### The Methaqualone Myth

Because of barbiturates hazards, drug companies have gone to great lengths to develop "safer" sedatives. One such substitute, methaqualone, made its appearance on the American and British drug market in 1965. The major selling point of the drug was its supposed non-barbiturate, nonaddicting qualities. It was touted to have all the advantages of sedative-hypnotic drugs and none of the disadvantages.

You guessed it — these claims were quickly proved to be erroneous. A lot of methaqualone quickly made its way to the illicit drug market where it was taken for its mellow, dissociative "high" and intoxicating effects similar to alcohol. But users found that tolerance eventually developed and quitting the drug at that point led to withdrawal symptoms that included headaches, severe cramps, convulsions and stomach hemorrhaging. Despite the increasing evidence of the drug's dependence potential, as

# CAFFEINE

The most widely used stimulant is caffeine. Hundreds of millions of "caffiends" gulp down tens of billions of doses of this psychoactive drug every year in the form of coffee, tea, cocoa and "cola" drinks.

Caffeine is one of a class of chemicals known as xanthines. The xanthines (caffeine, theobromine, theophylline) can in varying degrees cause central nervous stimulation and cardiac stimulation; they also act as mild diuretics. One cup of coffee or tea contains the same amount of caffeine, about 100-150 milligrams. But tea has a greater stimulant effect since it also contains theophylline, a weaker stimulant. The major xanthine in cocoa, theobromine, has very little stimulant activity, but an average cup of cocoa contains about 50 milligrams of caffeine. There are also about 50 milligrams of caffeine in a 12-ounce size cola beverage.

Heavy users of caffeine can develop tolerance, unpleasant side effects (such as nervousness, insomnia and irritability) and mild physical and psychic dependence leading to mild withdrawal symptoms and craving. The drug also increases the secretion of gastric acids, a matter of concern for those suffering from ulcers. "It does not seem to be true that coffee precipitates peptic ulcers," says Dr. Raymond Johnson of the National Naval Medical Center. "However, there is strong evidence that coffee aggravates some people who suffer from peptic ulcer distress."

Caffeine enjoys wide use and acceptance today, but in times past it has been quite controversial. Like other psychoactive drugs, it was vilified and at times repressed. When it was first introduced into Egypt in the sixteenth century, it caused almost as much fuss as the marijuana issue does today. Sales were prohibited; contraband stocks were burned. And in the nineteenth century, one medical authority reported (exaggerated?) stories of coffee psychosis. He also claimed that "often coffee drinkers, finding the drug to be unpleasant, turn to other narcotics, of which opium and alcohol are most common."

Turning to narcotics is probably the farthest thing from the minds of most people as they tipple a cup or two of their favorite brew. But they should be aware that they are indulging in a psychoactive drug. And like all drugs, it has potential health hazards if used to excess.

late as 1972 drug manufacturers claimed that it didn't produce psychic or physical dependence. Federal drug authorities have asked that the drug be placed in Schedule II of the Controlled Substances Act. The manufacturers have protested.

### Minor Tranquilizers a Major Problem

The minor tranquilizers are taken to relieve anxiety, stress and tension. And apparently these emotional states must be widespread in modern life: minor tranquilizers account for over a third of prescriptions for psychoactive drugs (compared to 25 percent for barbiturates). Two of the most widely used minor tranquilizers are Librium and Valium; over four billion Librium and Valium pills were dispensed in 1973.

Many minor tranquilizers, including Valium and Librium, can lead to tolerance and dependence. Valium and Librium also have been implicated in birth defects. The FDA has proposed they be sold with warnings against their use in the first three months of pregnancy. For these and other suspected health hazards, the federal government proposed that Librium and Valium be included in Schedule IV of the Controlled Substances Act. The manufacturer has protested.

### Amphetamines — More Abuses Than Uses

In contrast to barbiturates, amphetamines stimulate the central nervous system. In the form of pep pills they have been used occasionally by millions to stay awake or mask fatigue. Students take them to cram for tests the night before, and truck drivers to stay awake on long hauls.

But sustained use of amphetamines to produce a continuous state of stimulation is overdrawing the account at the body's energy bank. Amphetamines don't supply energy, as does food; they mobilize adrenalin to tap the body's energy reserves. But these reserves are not inexhaustible, and pep pill users who are overdrawn may eventually have to pay up — with interest — in the form of undesirable physical and mental effects. For one thing, judgment and perception become impaired even though the person is wide awake. The truck driver may hallucinate on the road, causing an accident. The student may not be able to think correctly during the exam. And after the drug wears off, the users may experience severe depression and fatigue.

# THE COCAINE CAPER

Psychoactive drugs come and go in cycles. If current reports are reliable, cocaine use is on the upswing; it has become the "in" drug.

Cocaine, the active principal in the leaves of the coca bush (not to be confused with cocoa, from whence comes chocolate) is a potent central nervous system stimulant. The effect of a "snort" (cocaine is usually inhaled) is a quick, intense euphoria accompanied by a decrease in hunger and indifference to pain and fatigue. Sigmund Freud experimented with it and for a while touted it as an aid to fatigue, depression and withdrawal from morphine.

"In my last severe depression I took coca again and a small dose lifted me to the heights in a wonderful fashion. I am just now busy collecting the literature for a song of praise to this magical substance," he wrote his fiancée in 1883. His "Song of Praise," the first of his *Cocaine Papers,* was published in July 1884. It turned out to be premature.

Cocaine doesn't seem to build significant tolerance. And it does not lead to physical dependence. But a strong psychic dependence can develop. As the drug wears off, the user often sinks from euphoria to profound depression; he is strongly motivated to repeat the dose and restore his euphoria. But repeated use of large doses produces a toxic psychosis in almost all its users. Also, prolonged sniffing results in deterioration of the lining of the nose and ultimately of the bone.

The growing amount of adverse evidence and Freud's own observations and experiences led to the end of his rapturous relationship with the drug. He published his last defense of the drug in July 1887 and soon thereafter discontinued all use of it personally and professionally — he had to undergo three separate operations on his nose to repair damage to the nasal septum.

But for 20 years thereafter, the coca plant was legal in the United States. It was widely used in pain killers, cola drinks, laxatives, chocolates and in a coca wine. In 1906 the Pure Food and Drug Act killed the drug's open use. In 1914 it came under the strict regulation of the Harrison Act.

Amphetamines also seem to depress the appetite center. They have been used in countless weight-reducing pills by millions of overweight persons, particularly women. At best, amphetamines are of short-term value. Within six to eight weeks of even moderate use, tolerance builds up. The overweight person often raises the dosage — despite warnings on the package — to keep reducing. And it works — she continues to go without hunger pains. But now she may lose sleep. She may suffer delusions or paranoia, imagining all kinds of problems and personal offenses. Her husband may find her restless and irritable. Amphetamines don't induce physical dependence, so there are no painful withdrawal symptoms. But many women who discontinue amphetamines complain of depression and fatigue so severe they may resort to amphetamines again.

### Speed Freaks

Because of its many undesirable effects, and because less dangerous substitutes had been found, doctors began to decrease their medical use of amphetamines at the very time teenagers were increasing their *non*medical use. As Dr. George Edison testified before a Congressional committee in 1969: "The interesting thing is that in the last ten years the quantity of these drugs produced and consumed has proliferated, while the list of legitimate medical indications has shrunk. In my opinion, and in the opinion of a number of other physicians, the list of legitimate indications has now shrunk to virtually zero. During this same period of time there has been a tremendous growth in the illegal and casual use of amphetamines, strictly for their stimulant effect. . . ."

Dr. Edison was referring to the most sensational abusers of amphetamines: the "speed freaks" ("speed" is the drug culture argot for amphetamines, particularly methamphetamine) who reached epidemic numbers in the late sixties. By "mainlining" — injecting intravenously — the drug, speed freaks can experience a sudden "rush" or "flash" that has been described as a whole body orgasm. They also felt hyper-alert and full of energy. So intense is the experience, that many speed freaks engage in "speed runs" by injecting the drug for days at a time.

During these runs, the freak doesn't feel like eating or sleeping. He is overactive, impulsive and may suffer from delusions,

paranoia and hallucinations. He may become psychotic and engage in belligerent or violent behavior — he may even kill.

Speed turned the hippie dream of utopian peace and love through drugs into a nightmare of violence and murder.

After a few days or a week of speed running, the person becomes so exhausted that he must "crash." He will then sleep for 12 or more hours and awake with a ravenous appetite. No wonder, he may have lost a pound or more per day of his speed run. But the withdrawal syndrome also includes depression and apathy so severe he may re-inject to get out of his slump. He is psychologically trapped in a roller coaster drug-induced world of euphoric highs and agonizing lows.

Speed freaks grabbed the most headlines, but they were outnumbered by the "straight" abusers of amphetamines — the dieting woman, the exhausted truck driver.

"In the United States, compulsive use of amphetamines did occur among a highly vulnerable segment of the adolescent population during the middle and late 1960s, although the extent of this phenomenon was exaggerated at the time and has diminished rapidly since then. On the other hand, there is mushrooming evidence that large numbers of middle class adults, particularly women, have developed chronic using patterns of orally administered low dose stimulant preparations" (*Drug Abuse in America,* p. 146).

Because of the sensational abuse by teenagers, the federal government clamped down on domestic legal production of amphetamines. By 1973, legal production was only a tenth of what had been produced three years before. And because of an increased understanding of its health hazards in even moderate doses, amphetamines are no longer so widely or so freely used for losing weight or staying awake. They are primarily recommended now for narcolepsy (involuntary sleep) and in controlling hyperactive children (in whom they have the paradoxical effect of calming down).

But the history of amphetamine usage remains as an object lesson of drug use. "Amphetamines provide one of the major ironies of the whole field of drug abuse," observed Dr. Edison. "We continue to insist that they are good drugs when used under medical supervision, but their greatest use turns out to be frivolous, illegal and highly destructive to the user."

# HALLUCINOGENS- BETTER LIVING THROUGH CHEMISTRY?

The last group of drugs we will examine were the first to be used in the psychoactive drug revolution — the hallucinogens. The most widely known and used is LSD (d-lysergic acid diethylamide), which is naturally derived from wheat ergot. Two other popular hallucinogens are mescaline (derived from peyote cactus) and psilocybin (derived from certain mushrooms). Many other substances of widely varying composition are known to have effects similar to that of LSD on the human mind.

"Hallucinogen" is derived from the Latin word *hallucinari,* "to wander mentally." These drugs are also known as psychedelic drugs from the Greek *psyche,* "mind," and *delos,* "visibly evident." Thus these drugs are mind-manifesting, consciousness-expanding. They introduce strange, or dramatically altered perceptions, sensory experiences, illusions, visions and subconscious material into the conscious mind. They expand mental experience beyond ordinary bounds.

To an even greater extent than for other psychoactive drugs, the effects of these drugs vary with set, setting and the personality of the user. The psychedelic drugs don't cause physical dependence. But tolerance to LSD builds up very rapidly, so that for practical purposes it can't be used more than twice a week without losing much of its impact. This discourages long-term chronic use. No withdrawal symptom has been reported. LSD is

longer acting (six to fourteen hours) and is considered 5000 times as potent as mescaline and 200 times as potent as psilocybin. It is said that one ounce of LSD will provide some 300,000 individual doses on the illicit market. The lethal dose of LSD is not known; no human fatalities have been recorded.

### Turn On, Tune In, Drop Out

"Hallucinogens have been part and parcel of man's cultural baggage for thousands of years," writes Peter T. Furst, professor of Anthropology at the State University of New York. "Hallucinogenic or psychedelic plants have been of great significance in the ideology and religious practices of a wide variety of peoples the world over.... The native peoples of the New World, especially those of Middle and South America, alone utilized nearly a hundred different botanical species for their psychoactive properties" (*Flesh of the Gods,* p. viii).

But hallucinogenic drugs were foreign to the masses in Western society. Until the 1960s there were only scattered reports of psychedelic drug use in Western culture — and then usually for scientific investigation. In the nineteenth century psychologists William James and Havelock Ellis wrote of their experimental use of hallucinogenic drugs. Author Aldous Huxley described his experience with peyote in 1953 in *The Doors of Perception.* LSD was first synthesized in 1938, but its hallucinogenic properties were not discovered until 1943 — and then by accident. For several years afterwards it remained a drug in search of a use. Eventually it came to be used occasionally in psychotherapy, where it proved useful in treating alcoholism. But outside of laboratories and hospitals, few had heard of or used psychedelic drugs.

Then Timothy Leary and Ken Kesey appeared on the drug scene. In 1962 Leary came under the scrutiny of the Federal Drug Administration and state officials in Massachusetts for experimenting with psychedelic drugs, and also advocating and personally using them for "nonscientific" reasons. The investigation received national publicity. In the spring of 1963, Leary was dismissed from Harvard, but he used the media's interest in the controversy to turn his firing into a *cause célèbre.* Soon thereafter, Ken Kesey took up the gauntlet on the West Coast, proferring his "electric Kool-Aid acid

test" — punch laced with LSD. In 1964 he and his merry pranksters took a bus trip (and a drug trip) across the United States.

Kesey used LSD for fun and games. But Leary took the whole experience more seriously. In 1966 he founded the League of Spiritual Discovery, his own brand of mystical religion based upon the sacramental use of LSD, and of peyote and marijuana. He became the "High Priest," the chief apologist, and defender of the faith delivered through mind-altering drugs. He exhorted everyone — particularly youth — to "turn on, tune in, and drop out." Drugs became the alpha and omega, the means and the end, the pillar of fire and the golden calf of the youth revolution.

### The Modern Forbidden Fruit

In many respects, the whole drug scene became a replay of the forbidden-fruit scene in the Garden of Eden.

You know the story. "Did God say, 'You shall not eat of any tree of the garden'?" said the serpent (Satan) for openers. Every tree is all right to eat, replied Eve dutifully, except the tree of the knowledge of good and evil, which would be fatal.

Then the serpent gave the come-on: "You will *not* die. For God knows that when you eat of it your eyes will be opened, and you will be like God, knowing good and evil."

It worked. "So when the woman saw that the tree was *good* for food, and that it was a *delight to the eyes,* and that the tree was to be desired *to make one wise,* she took of its fruit and ate; and she also gave some to her husband, and he ate" (Gen. 3:1-7). The rest is history.

The modern forbidden fruit for teenagers were the psychoactive drugs. Millions of them found the temptation to try them at least once to be irresistible. And they are truly a mixed bag of good and evil: all of them can be used for legitimate medical purposes — but they also can be used in ways that can destroy health and happiness. Many who have tried the harder drugs have surely died.

Of course, our analogy with the tree is not complete. For this chemical tree of the knowlege of good and evil does not grow in a 20th-century Garden of Eden. It flourishes in a world that many believe is turning into a man-made hell. For many people, psychoactive drugs are a means of pursuing paradises in the mind (or at

least escaping a ho-hum or hapless existence).

So the circumstances have changed — but people have not. What motivated Adam and Eve to try the forbidden fruit also motivates their descendants to try drugs.

### Fun — A Neurological Necessity

"It was a delight to the eyes" goes the official account. In other words, the tree was very pleasing to the senses.

Likewise, psychoactive drugs can be a delight to the eyes — and the ears, and the nose, and the taste buds. They enhance, they alter, the stimuli coming to the brain from the five senses. These novel sensations and perceptions are considered to be fun, and they constitute one of the primary reasons people play with these chemicals.

It's a matter of Basic Psychology 101 that everybody likes to experience fun, joy and pleasure. We like to be entertained and amused. We like to experience new and pleasant sights, sounds and tastes.

But "like" is not really the word. Pleasure, good times, enjoyable stimuli are more than superfluities or luxuries in life — they are necessary to life itself. Considerable research indicates that stimulation through the five senses is one of the primary needs of higher organisms.

Stimulus hunger is a basic motivation. Enjoyable stimuli are sought and preferred, but if only the unpleasant or uninteresting stimuli are available, the brain will settle for what it can get rather than shrivel up. The brain survives in such cases, but mental health suffers.

That stimulus hunger is a compelling, life-sustaining need can be seen in the following experiments.

### Variety — The Very Stuff of Life

In one experiment, researchers analyzed the effect of boredom. College students were paid to don padding and blindfolds and lie on beds in isolated rooms so that sensory stimuli — sight, sound, touch — were reduced to a minimum. What remained was extremely monotonous.

As time dragged on, students became irritable, restless, unable to concentrate. They talked to themselves, whistled, sang, recited poetry, counted numbers — anything to relieve the boredom. Eventually the boredom made it impossible for some to think, and they just let their minds drift. And to the

surprise of researchers (they discounted the reports until they went through the test themselves), many of the students after long periods of isolation began to hallucinate.

As Christopher Burney wrote in his account of his stay in solitary confinement: "Variety is not the spice of life; it is the very stuff of it."

### Of Rats and Men

If the mind has an aversion to boredom, it turns on to abundant pleasurable stimuli. This was demonstrated in an experiment where scientists implanted electrodes into the pleasure centers of rats' brains. They placed the rats in test boxes that had a treadle. By pressing it, the rats received a very mild electrical shock to their brains. To get another stimulus, the treadle had to be released and pressed again.

The rats "turned on" to the electric stimulus test — literally. They went into electrical ecstasy, stimulating themselves from 500 to 5000 times per hour. Some stimulated their brains more than 2000 times per hour for 24 consecutive hours! So rewarding was this stimulation that the rats forsook all external pleasures, food, water, sex, everything — to trip on the treadle.

Human beings aren't rats. But at times they feel as if they are treated like rats, and they speak of dropping out of the "rat race." In the mid-sixties a lot of them — mostly teenagers — did just that. They turned on with the electric Kool-Aid acid test. And they turned on with other "electrodes" such as STP and speed. These drug binges often lasted for days — so new and powerful was the experience. In one instance, a young woman in Haight-Ashbury was reported to have taken 100 injections of speed in 24 hours. Speed trips lasting a week or longer were not uncommon.

### "Desired to Make Wise"

Of course, human brains are much larger, human cognitive processes much more complex, than rat brains. People have higher and more varied needs and motivations. Man does not live by bread and circuses alone. He is also motivated by concerns for security, love, self-esteem, identity, self-fulfillment and a sense of meaning and purpose to his life.

The most pampered, affluent generation in all human history said through drugs that the "good life" wasn't really so good, that all this progress and gadgetry was actually depriving

people of these other basic needs. The youth movement in its early days was a volatile mixture of chemicals and ideology. Governments were oppressive, factories polluted, work was dehumanizing and meaningless, urban life was artificial and boring, and anybody over 30 was hypocritical and couldn't be trusted.

The hippie-drug revolution was in many respects a vote of no-confidence in the "system" — its morality, its methods, even its future. They had no use for "progress" that had brought man to the brink of nuclear suicide. Words like "alienation" and "turned off" were used until they became clichés falling upon the ears without impact or meaning. But these shopworn words still describe the essence of the problem. Thousands of teenagers used drugs to protest the world they lived in but didn't want to live with.

But drugs were more than a negative protest. They were also viewed by many as a positive means of fulfilling deprived needs, of constructing new values and life-styles to supplant the old.

For drugs did more than titillate and entertain. They could alter consciousness and change the way people thought and looked at the world and themselves. They could open up new vistas of understanding and knowledge.

Drug users sought what William James called the "mystical consciousness" and Abraham Maslow called "peak experiences." "They are states of insight into depths of truth unplumbed by the discursive intellect," wrote James in *The Varieties of Religious Experience.* "They are illuminations, revelations, full of significance and importance." In other words, like the tree in the midst of Eden, drugs were "to be desired to make one wise."

### Altered Consciousness

"Consciousness" is one of those phenomena that occurs but is not easy to define. Very simply stated, it is the total mental configuration of a person, his perception of reality. It is the sum total of his thoughts, moods, perceptions — all the mental processes and modes of which he can be aware.

Whatever consciousness is, many parents are sure they don't want it altered. Since the words "altered consciousness" are commonly used in connection with drugs, they suffer from guilt by association. Actually, the words are quite innocent, because altered

consciousness is something all of us — whether we use drugs or not — experience every day!

Sleep, drowsiness, daydreaming and meditation are all different states of consciousness. We shift back and forth through these states in the course of our daily activity. We can even chart some of these states with an electroencephalograph — an instrument that measures brain waves. Alpha waves are associated with states of rest; beta waves with alertness and attention; theta waves with dreaming.

So altered consciousness is a common everyday occurrence. In addition, society condones — even encourages via commercials and advertisements — the deliberate alteration of consciousness by drugs! People take barbiturates to sleep, alcohol to relax, and amphetamines or caffeine (coffee) to stay awake. Parents who dread their children using mind-altering drugs such as pot may be using two or three mind-altering drugs themselves — all the while wondering what their kids see in drugs.

What their children see are images and colors unlike anything experienced in the usual states of consciousness or in the mild states of altered consciousness parents induce by means of over-the-counter drugs and alcohol. In these "higher" states of consciousness, spatial relationships and the sense of time are dramatically changed. Thinking becomes nonlinear and free flowing. Sensations ebb and flow in intensity.

### Dreams Become Nightmares

Because drugs put things into a whole new perspective, it was deemed in the early days of the youthquake to be an excellent catalyst for revolutions, creativity, personal growth, mystical experiences — whatever the drug user's intellectual bag was. The psychedelic revolution operated under a simple syllogism: change the prevailing mode of consciousness and you change the world.

The forerunner of the new age was the "summer of love" that took place in 1967 in the Haight-Ashbury district of San Francisco. Thousands of "flower children" blossomed for a few halcyon months of free love, good vibes, and plentiful drugs.

But the summer of love quickly turned into a winter of discontent. One problem was that a lot of teenagers were looking for a new thrill more than a new philosophy of life. While the "leaders" espoused

new philosophies and ideologies, the masses indulged in sheer hedonism.

But the major problem was that drugs carry no guarantees of good trips or new revelations. Many people who were inexperienced and apprehensive about drugs had anything but ideal experiences. Cases of toxic psychosis, permanent psychoses and panic reactions were widely reported in the late 60s.

And worse yet, drugs alter body chemistry as well as consciousness. As we have seen, no psychoactive drug is perfectly safe. None is free of potential health hazards. All have undesirable side effects. No matter how high the experience, sooner or later the drug user must come back to earth and experience the side effects and consequences of a particular drug.

But the full dangers of drugs — particularly the harder drugs — weren't widely known then. Or they weren't *believed* since the information came from people over 30 who were just using nonfactual scare tactics. (That was true — to a point.) Even when the mounting death toll made believers out of skeptics, some continued to use them undeterred by the dangers. Some seemed determined to be chemical kamikazes.

### The Drug Illusion

Those who took drugs for spiritual and philosophical reasons largely avoided the harder drugs and their hazards, preferring instead softer drugs such as LSD and marijuana. They were looking for new ways to live — not die. But a funny thing has happened over the years: Many of these seekers of truth and meaning have dropped drugs altogether! Why? Because they finally pierced the great illusion of drugs and came face to face with the reality: they didn't need drugs to enjoy life. They didn't even need them to explore their consciousness.

That drugs are the best or the only way to explore consciousness is the greatest misconception held by many drug users. In truth, there are many ways of altering consciousness *without* drugs. Various esoteric disciplines have been demonstrating how for centuries. Biofeedback has shown promise as a modern technique.

Many people who have tried both drug and nondrug methods of consciousness alteration prefer the latter — no hassle with unpleasant distracting side effects during the experience and no post-letdowns or depressions afterwards. They discovered they were flying high

in coach with drugs — when all along they could have gone first-class without them.

"Practically every drug invented, from opium to LSD, has had its champions who insisted it actually heightened human potentiality," notes psychoanalyst Leslie Farber. "The objective evidence for their claims, however, has always been depressing."

Dr. Robert S. DeRopp believes that "in the beginning, drugs by releasing certain energies in the body, touch off an inner fireworks display that is often fascinating and very beautiful. But the self-indulgent or lazy investigator who makes a habit of trying to set off such inner pyrotechnics will find that the show becomes less and less rewarding .... They can never, no matter how often they are taken, enable the investigator to change his *level of being.* Their continued use represents a form of spiritual burglary which carries its own penalty, an irreparable depletion of the substances needed for real inner work and a total loss of the individual's capacity to develop" (*The Master Game,* p. 48).

### Something Better

Because of the health hazards, and because a lot of idealistic users have gone on to other things, drugs are no longer sugarcoated with high expectations and naive ideology. But millions of teenagers are still taking them. A lot of teenage drug use is — always has been — experimental. But a significant minority continue to use drugs over and over for reasons other than because "it's the thing to do." For them, drugs stand in for whatever is missing in their lives, a buffer from whatever bothers them. Drugs provide stimulation when there is nothing else stimulating to do. They bring relief from the unpleasant stimuli of life — the problems and anxieties. They are a dramatic way to kill time — and maybe kill oneself if nothing else worthwhile shows up.

The philosophy, the approach to life of many a drug abuser, is summed up in this conversation:

*Interviewer:* "Why do you use drugs?"

*User:* "Why not?"

*Interviewer:* "How could someone convince you to stop?"

*User:* "Show me something better."

### The Carrot or the Stick?

"Basically, individuals do not stop using drugs until they dis-

cover 'something better,' " believes Dr. Allan Cohen, widely recognized expert on drug use. "The key to meeting problems of drug abuse is to focus on the 'something better' and maximize opportunities for experiencing satisfying nonchemical alternatives."

Basic Psychology 101 again: The carrot will bring about more effective and longer-lasting change than the stick. People respond more constructively to positive inducements and rewards than to negative deterrents and punishments.

**Positive Alternatives**

Dr. Cohen has drawn up an alternatives model as a paradigm of how to deal with drug abuse. Dr. Cohen emphasizes that to offer an alternative to drug use is not synonymous with a substitute for drugs — it must be something more effective, more worthwhile than drugs for giving people real satisfaction and fulfillment.

For example, if a person is motivated to use drugs for physical satisfaction or relaxation, he may be profitably directed toward physical activities — sports, dancing, hiking, carpentry. If he is seeking sensory stimulation, he may find more satisfying experiences with sensory awareness training, music, or developing an appreciation for the beauty of nature.

The alternatives model is practical because it is based on the premise that there is no one cause and hence no one sure solution for everyone. It tailors programs to fit people, not people to conform to programs. It allows the person the freedom and opportunity to discover and develop his full potential.

This approach works because it treats the drug problem for what it really is — a people problem. It shifts the focus from what drugs do to *why* people use them. As such, it is not only effective in getting people off drugs, but also in *preventing* them from getting started.

And prevention is the ultimate solution to drug abuse. But that will require a radical overhaul of our way of life. For the drug problem is more than a threat to our way of life — it is the tragic *result.* A society that offers "something better" than drugs is a society that will not be afflicted by drug abuse to the extent we find today. The continuing high level of drug abuse means that a lot of young people need — but don't have — something better to do.

Back in Eden there was a

positive alternative to the tree of the knowledge of good and evil. That was the tree of life — symbolizing God's revelation, guidance and instruction. It was readily and freely available. But the original parents believed the original con artist rather than the Creator.

That positive alternative is still available today. It enables man to satisfy his innate needs. It reveals his incredible human potential and how to realize it. It offers something better for a materialistic society that has belatedly discovered that "a man's life does not consist in the abundance of his possessions" (Luke 12:15). It offers hope for a world facing nuclear suicide. For a glimpse of that alternative, write for our free booklet *Why Were You Born?*

"[It] deserves to be stated in letters ten feet high [that] in order to realize his possibilities, man must believe in an *open* future; he must have a vision of something worth doing," wrote Colin Wilson in *New Pathways of Psychology.*

Our free booklet provides that vision.

# ADDITIONAL READING

The Worldwide Church of God publishes many informative booklets on a wide range of topics. Four are listed below.

## *The Seven Laws of Success*

The only way to success is not a copyrighted formula being sold for a price. You can't buy it. The price is your own application of the seven existing laws.

## *Alcoholism — A Worldwide Curse*

Alcoholism is, in reality, the worst drug problem. Read how this debilitating disease is devastating the health of people around the globe. Learn also how you can help someone who drinks too much.

## *VD — The Silent Epidemic*

The disease no one wants to talk about is pandemic. Discover the real underlying cause of venereal disease and the only permanent solution.

## *Managing Your Personal Finances*

This booklet pinpoints common mistakes in handling money, and it shows how you can be better prepared to cope with some of the financial problems that have become trademarks of the twentieth century.

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Write for your free copies of these booklets. Worldwide mailing addresses are at the end of this booklet.

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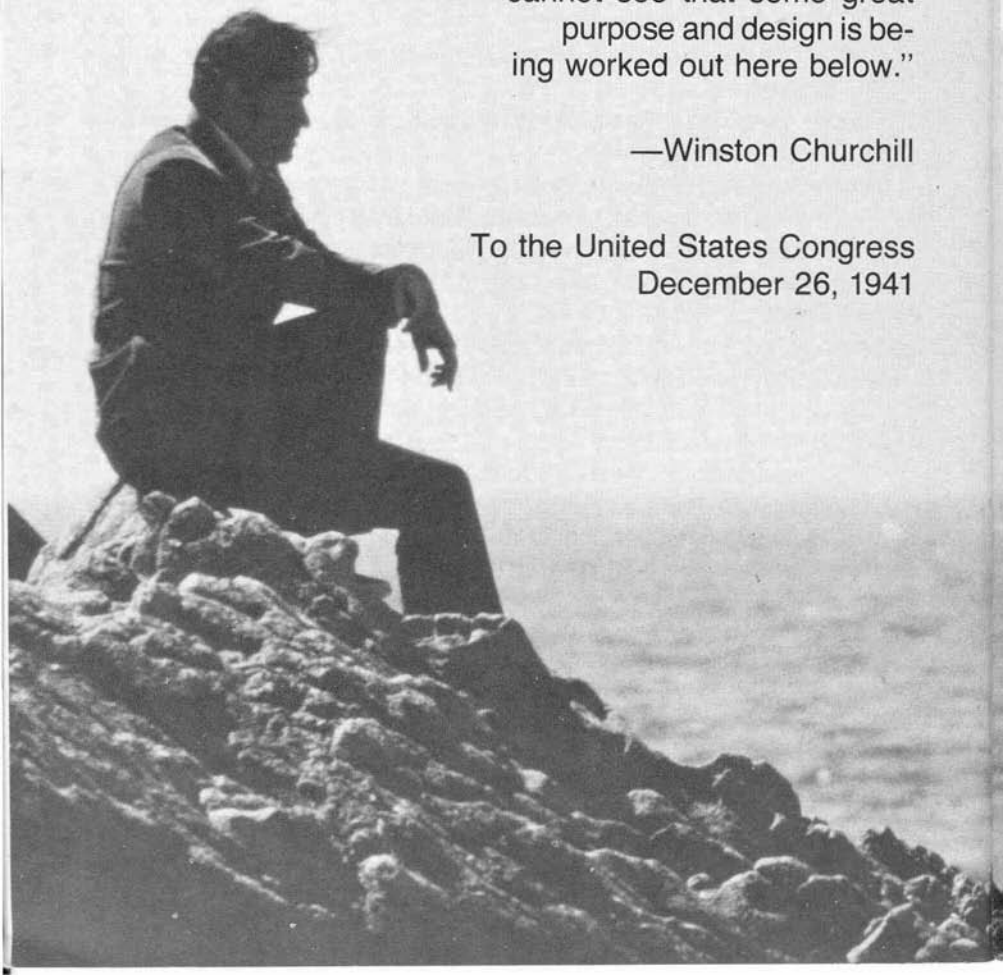
# Why were you born?

"I will say that any man must indeed have a blind soul who cannot see that some great purpose and design is being worked out here below."

—Winston Churchill

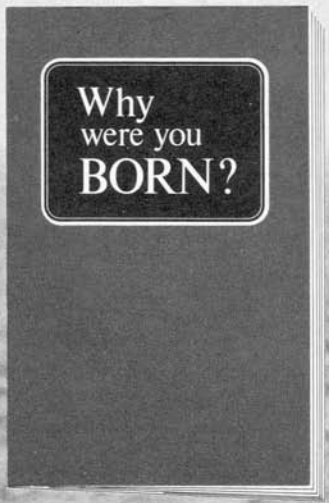
To the United States Congress
December 26, 1941



Churchill understood that man's blood, sweat and tears are not spent in vain. Life was not intended to be an exercise in futility, but rather a meaningful and fulfilling experience.

From birth, every human being possesses an incredible potential that few develop, or are even aware of. There seems to be no consensus of what man is or why he exists, if there is a reason at all. There *is* a purpose to life that science has not discovered and religion has not explained. There are universal goals that lead to abundant living and happiness in a frustrating world.

You can receive your free copy of *Why Were You Born?* by mailing your request to our office nearest you. See the last page of this booklet for our mailing address nearest you.



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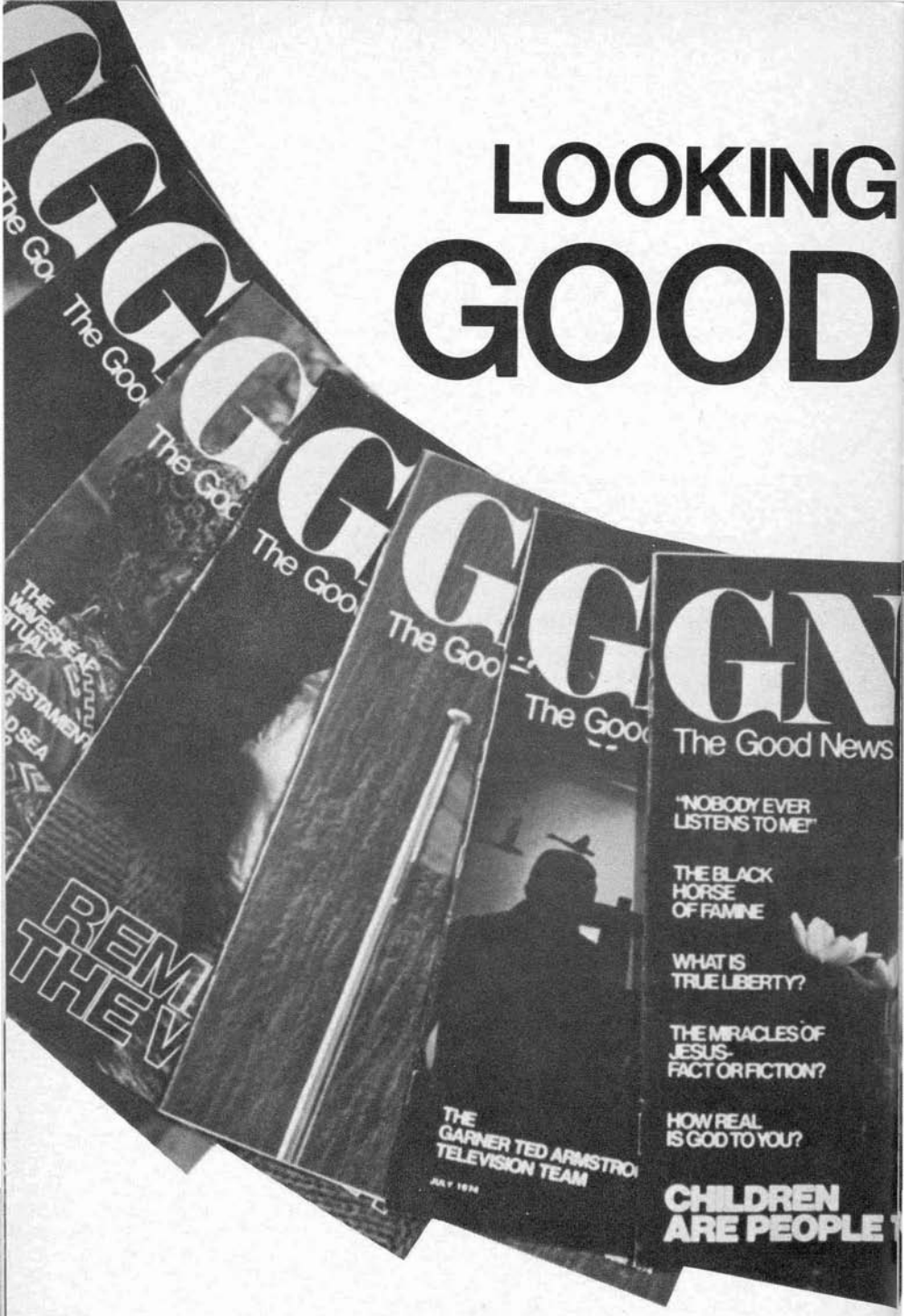

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