

marijuana task force

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PRELIMINARY MEMORANDUM
prepared for the Minnesota Legislature
March 1973

This report is the first of two that will likely be prepared during the 1973 semisession of the legislature. It is intended to acquaint legislators with the issue alternatives to the status quo.

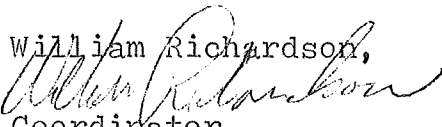
We ask legislators to retain their copies of the preliminary report to allow addition of subsequent memoranda, reports and answers to any individual questions..

The second memorandum will likely be completed late in April. It will include a comprehensive report on actions taken by other legislatures and a more definitive estimate of the financial costs of the existing marijuana laws.

We desire to be of assistance to any legislator who has a question--medical, legal, constitutional or otherwise--about the law as it is written or as it might be revised. If we do not have the answer, we will seek it quickly and to the best of our ability.

Our efforts thus far would not have been possible without the help of the National Organization for the Reform of Marijuana Laws (NORML), the Minnesota and American Civil Liberties Unions, the Schools of Medicine, Pharmacy and Law at the University of Minnesota and John Kaplan, Stanford University professor of law and author of Marijuana: The New Prohibition.

William Richardson,


Coordinator

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Affiliated with the Center for Urban Research

SUMMARIES
Preliminary memorandum
March 1973

1. Existing medical information does not indicate that marijuana is harmful to the mind or body if used in moderation. Even in excess, marijuana is much less harmful than alcohol or the nonprescription drugs that fill most American medicine chests.
2. The existing marijuana laws are costly to enforce in more than economic terms. In addition to the millions of dollars expended in police, court, and correctional costs, the users of marijuana resent the imposition of the majority on their access to an activity that does not work to the disadvantage of others.
3. In some cases, especially among teenage or post-teenage users, this resentment grows into alienation and distrust of all government and laws. By forcing marijuana consumers to turn to illicit sources of the drug, they are much more likely to be exposed to dedicated criminal elements that might introduce them to dangerous drugs.
4. The governments' standing to restrict the use of marijuana is not substantive because . possession and use are not incident to crime against the persons or property of others. Laws such as Minnesota's, which provides a maximum penalty of one year in prison and a \$1,000 fine violate the Constitution's Eighth Amendment which prohibits "cruel and unusual punishment." Other constitutional protections are violated, at least marginally, including the implied rights to expression, free association and privacy and the explicit guarantee that the laws be applied equitably.
5. The Legislature has three alternatives in change. First, legalizing the possession and sale of the drug. Second, legalizing possession but not sale. And third, reducing the penalties for possession.

In 1971, the Minnesota Legislature modified the state's controlled substances act to define possession of up to 1.5 ounces of the drug marijuana (*cannabis sativa*) as a gross misdemeanor. The penalty for such an offense was reduced from a maximum of 20 years in prison and a \$20,000 fine to one year and a \$1,000 fine.

There was a time when Minnesota statutes did not even proscribe penalties for possession or sale of marijuana. But the scare precipitated in the mid-1930s by well-intentioned administrators in the Bureau of Narcotics and Dangerous Drugs prompted the federal government and eventually every state in the union to act to restrict or outlaw the possession, sale or use of the substance.

The contemporary fear was that marijuana produced several responses on the part of its consumers--responses that took the form of antisocial behavior or that would inevitably lead to such behavior.

A common fear of the day was that consumption of marijuana caused an individual to become belligerent, often to the point of violence. A 1937 Justice Department pamphlet balmed marijuana for many a gruesome murder.

Predictably, the drug was expected to produce uncontrollable sexual passion that, if unsatisfied by a marijuana-motivated member of the opposite sex, might result in the

rape of some unfortunate. In general, marijuana users were regarded as sexually promiscuous.

The bureau also maintained, inconsistently, that the drug produced an excessive euphoria that was so pleasurable that the user would crave it more often and in increasing totality. This, of course, was addiction. And, unless the marijuana addict of the day possessed the fortitude to withdraw from his habit, he would increase his consumption until he would have to turn to heroin, morphine and cocaine.

Naturally, the unfortunate addict would lose all motivation to provide for himself, much less his family, not to mention any desire to achieve success. He would contribute nothing to society and doubtless would become a burden, if not a menace.

Recently, although along the same lines of reasoning, marijuana has come to be linked with political radicals whose use of the drug leads many to conclude not only that their radicalism is a product of the drug but that all who smoke marijuana are bent upon defying the established order and destroying it if they can.

Those who reach such conclusions, like the bureau officers 35 years ago, generally lack the benefits of factual information. They tend to class marijuana with narcotic and addictive drugs such as heroin, yet regard as completely safe nicotine, caffeine and alcohol. This bias prevails in the lawmaking process, too, as reflected in

the minimal and inadequate controls on those drugs in the latter group and the complete prohibition on those in the former group, including marijuana.

The fact is, we know, or could know, quite a bit about our society's drugs. We are aware, for example, of the addictive nature of drugs. We know what that drug does to the human mind and body.

We even know the damage alcohol can cause.

One common form is alcoholic dementia, in which atrophy of cortical cells causes a decline in intelligence: the patient gives clinical evidence of advanced intellectual deterioration, being ultimately reduced to a negative state if not cut off by some intercurrent disease.¹

We also know a good deal about marijuana for substantive research has been recently completed and is becoming available. This research indicates, as studies for years have indicated, that the proven physiological and psychological effects of marijuana consumption are insignificant, especially in comparison to other, more common drugs.

The medical evidence cited to prove the dangerous nature of marijuana consumption is usually based on research procedure errors or government records reflecting the effects of entirely different drugs or stronger strains of marijuana than are usually consumed in the United States. A common error in research is the use of concentrated doses or doses administered through injection rather than medium-strength products introduced through inhalation or ingestion. Similarly, many of the misconceptions are based on reports

of the effects of opium or concentrated hashish, a concentrated product of the cannabis plant), both of which are used much less extensively than marijuana.²

Outside of such research, no evidence exists to prove that the consumption of common marijuana is more dangerous than any of the drugs we keep in our medicine chests. Most studies indicate it has a much less extensive potential for abuse.

New York City Mayor Fiorello LaGuardia in 1942 was moved by public fear of the "killer drug marijuana" to appoint a blue-ribbon commission to study the drug. Thirty-five physicians, psychologists and law enforcement officials were appointed. If any bias was present in the commission's considerations, it was against the drug.

After two years of careful study, the commission reported:

Those who have been smoking marijuana for a period of years showed no mental or physical deterioration which may be attributed to the drug.... Marijuana is not a drug of addiction. Marijuana does not lead to morphine or heroin or cocaine addiction.... Marijuana is not the determining factor in the commission of major crimes.³

Dr. David Smith, a California physician, concluded after an extensive state-funded study that "actual physical damage resulting from marijuana use is as yet unproved."⁴

What has been proved is that marijuana in sufficient volume causes reddening of the conjunctiva (the whites of one's eyes); an increase in the pulse rate; and, less

reliably, a dryness of mouth. Marijuana use also enhances appetite for many users.

This is not to suggest that marijuana does not induce intoxication, only that its intoxication is not as predictable as alcohol or other drugs. Unlike alcohol, marijuana does not induce intoxication inevitably. Elements influence marijuana intoxication that have a much less significant, if any effect on alcohol intoxication.

Marijuana is a "subtle drug" whose intoxicating capacity depends on the environment in which it is consumed and the mind "set" of the consumer. (One result, unfortunately for some researchers, is that their marijuana-using subjects fail to become intoxicated under laboratory circumstances.)⁵ In the case of a novice marijuana user, the drug often fails to induce intoxication due to the nature of the drug effect and the new user's failure to recognize it. It is a drug that requires experience and the right conditions for its use (in order to become intoxicated), unlike the more predictable substances we consume.

Once this experience is acquired, however, the consumer realizes an intoxication comparable to that of an alcohol drinker. The marijuana consumer may experience loss of coordination and memory and he may feel euphoric. But, unlike alcohol, the euphoria resulting from marijuana use is not part of an expanding belligerence and general loss of judgement.

A significant study in this area of the controversy was administered by scientist Alfred Crancer and reported in an article in Science magazine. Crancer and his associates, including three members of the Washington state Department of Motor Vehicles research division and a psychiatrist and psychologist from the University of Washington found that there was no significant difference between the performance of persons under the influence of marijuana and the same persons under the influence of no drug at all. But under the influence of alcohol, subjects exhibited a substantive reduction in their normal ability to operate a motor vehicle.⁶

Alcohol is regarded by the Department of Transportation as a major cause of the nation's 55,000 annual traffic fatalities, most figures implicating alcohol in half to three-quarters of the serious accidents. The drunken driver suffers impaired vision, drowsiness and loss of perceptual and physical judgment whose results do not end with traffic accidents.⁷

"Homocide is an alcohol-related crime," the 1967 report to the President by the Task Force: Drunkenness, concluded.⁸

Prof. Marvin Wolfgang found a relationship between the type of homicide and the effect of alcohol on individual judgment.

In considering the distribution of passionate murders, it should be also remembered that alcohol functions to release emotions and lower cortical control over manifestations of anger....

There is a significant association between alcohol in the homicide situation and the method of inflicting death. More stabbings occurred with alcohol present during the act of homicide than did any other assault method. Beating by fist or blunt instrument ranked second.⁹

The relationship between marijuana and alcohol and the comparable effects are considered in Alvin Roth's medical textbook Medical Pharmacology:

Marijuana is often compared to alcohol. Long-term abuse of alcohol is commonly associated with physical deterioration whereas long-term abuse of marijuana is not. Unlike marijuana, alcohol is physically addicting, and tolerance does not develop to marijuana. When inebriated, the alcoholic usually suffers a greater loss of judgment and control than the marijuana user, whose highs are usually characterized by alterations in perceptions and mood without a marked loss of behavioral control. Aggressive drives are commonly released by alcohol, rarely by marijuana. The appetite is stimulated by marijuana, whereas calories, not nutrition, is provided by alcohol.¹⁰

The last point is particularly relevant to considerations of the long-range effects of marijuana as opposed to alcohol use for the assumption has been that marijuana, like heroin or morphine, debilitates the human body over a period of years of use. As we have indicated, no evidence to support such an assumption exists. But extensive information defines fairly completely the nature and extent of prolonged alcohol use.

The greatest potential for harm to the alcohol consumer arises from the greater possibility that he will be party to a fight or automobile accident, in line with his loss of judgment and increased belligerence. But the alcoholic also might contract a vitamin deficiency as a consequence

of alcohol consumption that kills the appetite for more substantial food. The serious alcohol consumer might grow ill with gastritis (inflamed stomach) or cirrhosis (a disease of the liver with which kills half its sufferers.

And the inevitable hangover follows a night of drinking for the novice and experienced drinker alike.

As evidenced by the report of the Indian Hemp Commission (1894), so such long-term ills are found to plague marijuana users.¹¹ More does marijuana induce a hangover or an aversion to food consumption.

The American people, recognizing the obvious potential for alcohol abuse, acted decisively in 1913 to prohibit its production and consumption under almost any circumstances. But those who most feared the danger failed to realize that the vast majority of those who consumed alcohol did so in moderation and, if in moderation, did not harm others in the process.

By 1933, the effects of the prohibition--in the form of a new and expanded criminal element and an unnecessarily divided American people--convinced the electorate that the 13th Amendment was bad law whose consequent evils outweighed its good. It was a law that penalized (often cruelly) a sizable minority who desired a benefit that did not have a detrimental effect on the majority when enjoyed in moderation. It was a law that sought to destroy the abuse by destroying the potential for abuse.

"The marijuana laws have encouraged a disrespect for the laws; they have destroyed the credibility of government; and they have estranged the young."

Richard Cowan writing
in National Review,
William Buckley, publisher
December 8, 1972

More than 24 million Americans have smoked marijuana and 7 to 10 million smoke the drug occasionally or regularly. In Minnesota, reports of law enforcement agencies indicate that more than 300,000 persons have consumed marijuana at some time and probably 100,000 are occasional or regular users.¹²

But the allows any of them--or all of them--to be arrested, tried, convicted and sentenced according to the Controlled Substances Act. Possession of 1.5 ounces or less of marijuana is a gross misdemeanor punishable by a \$1,000 fine and a year in jail.

Persons in possession of larger amounts of the drug, or found guilty of second or subsequent offenses may be found guilty of a felony, in which case the maximum penalty is a \$25,000 fine and 20 years in prison.

These harsher retributions are also applied to violations of the laws restricting the sale and use of narcotic drugs such as heroin or hallucinogens such as LSD, which produces similar effects to those we will outline. But, if we assume that moderation is reflective of discretion, as it certainly is in regard to alcohol or other drug consumption, the possession and use of a moderate amount of cannabis is the most deserving of attention.

The conviction of a young St. Paul man on the basis of his possession of 1/2800th of an ounce of marijuana last year was upheld by the state Supreme Court on grounds that he did, indeed have in his possession an illegal drug that the legislature intended to be punished. Such a case illustrates the potential for misapplication of the law as long as it is allowed to remain in its dangerous form during the current period of debate.

Obviously few prosecutors or legislators or judges or policemen would seek the maximum penalty on the basis of such microscopic evidence. Indeed, few judges in the past two years have sentenced persons convicted of possessing a "small amount" of the drug to prison terms. Rather, small fines accompanied by orders to attend drug education classes are more often meted out.

But the potential persists, and its persistence is costly to all of us.

Most apparent among the costs we all bear are the expenses incurred by law enforcement agencies and the court systems that are mandated to deal with violations of the laws that prohibit marijuana possession. By the very nature of the proscribed drug, law enforcement officers are obligated to undertake their chore through expensive programs. Because use of the drug usually induces a quiet contemplative mood, the individual who is intoxicated moderately on marijuana is much less easily identified than the one who is in similar conditions due to alcohol.¹³ The alcohol consumer in such a comparison may be belligerent and will likely exhibit a loss of some inhibitions. The marijuana user is likely to be quiet--his euphoria kept within himself or exhibited in the loss of inhibitions other than those that control belligerence.

Consequently, the marijuana consumer, who is inconspicuous illegally, is less easily apprehended than the alcohol consumer who is conspicuous legally or illegally.

So in order for the police to fulfill law enforcement obligations, special personnel must be employed for expensive surveillance operations. The Metropolitan Area Narcotic Service, for example, assists the Twin Cities police agencies in constricting the illegal drug traffic by keeping the known dealers under surveillance and making arrests when the opportunities present themselves.

Sometimes the squad must provide an incentive, often in the form of cash payments to informers. The MANS budget includes a \$20,000 line item for such purposes. Even encouragement of this sort might be justified ^{if} the agency were helping to close in on large-volume dealers in hard narcotics. But a comparison of the squad's 439 1971 arrests for possession with district and municipal court appearances for marijuana violations indicate that most of the agency arrests were not for possession of hard drugs or even very large quantities of marijuana. (Most law enforcement agencies do not distinguish arrests for marijuana possession from possession of other drugs in recordkeeping.)¹⁴

One-third of the agency's funding--\$133,695--are federal finances while the other two-thirds are raised by state and local taxes.

Other law enforcement agencies spend about 3 to 5 per cent of their budgets on "narcotics control," according to urban finance specialist Robert Benson.¹⁵ In the case of St. Paul, for example, the expenditure would fall in the \$2-\$400,000 class, which is doubtless a high estimate, but the St. Paul police department budget does not even treat its drug division separately.

In any case, Minnesota law enforcement agencies spend millions of dollars on enforcement of the state's controlled substances provisions and because marijuana use

is predominant, compared to other nonalcoholic drug use, it is more likely discovered. Concomitantly, it is the user in possession of a limited quantity whom police arrest because he is less dangerous and probably lacks the influence possessed by large-volume dealers.

Then there are the expenses for trying those arrested for possessing the drug and incarcerating those who are convicted. Alternatively, Minnesota law allows a judge to order a violator to attend a drug education program. If Minnesota's performance is comparable to other states, about 30 percent of those arrested for possession are convicted and about 50 percent of these are actually imprisoned.¹⁵

All this requires millions of dollars in taxes, but more costly to society are the effects the existing drug law has on matters that are difficult to price.

Fundamentally, the law puts society--the establishment--in much the same position it was in during Prohibition. A sizable minority of the population consumes or has consumed marijuana. In this case, marijuana is no more harmful than other drugs the society allows, indeed, most research indicates it is less harmful. It is predictable, then, that the segment of society against which the law is directed will feel treated unjustly. This has a divisive effect on society, an effect that is aggravated by a number of elements.

First, use of marijuana is increasing. As more people become aware of the facts about marijuana, its acceptance increases among population segments that would not have considered its use a few years ago. Accounts are becoming more common of parents, unable to convince their children of the dangers of marijuana, try it themselves and recognize its advantages.¹⁶

In the same connection, the 16 to 25-year-olds who have made up a sizable majority of the marijuana-using population for several years are growing older and having the effect of all generations as they become part of the older half of society--the radical changes demanded by the college-aged youths seem less radical after a few years as the youths become part of the social institutions that have great bearing on value changes.

It cuts another way, as well. California legal experts have observed that juries are increasingly unlikely to convict persons accused of marijuana possession as a result, they surmise, of increased acceptance among all segments of the population and increased influence of persons in age groups that were exposed to the realities of the drug when they were young enough to accept them.

Second, those who perceive a generation gap are forced apart by the marijuana laws for they are inclined to blame those on the other side for the existence of the chasm. Use of marijuana is still primarily an activity of college-age people, with whom most high school-age

identify. This means the bulk of those who smoke marijuana are on one side of the split between generations while the bulk of those who have supported maintenance of such provisions are on the other. Of particular concern must be the young people who are not yet lost to intractable cynicism. For many young people, the double standard applied to American drug use--the standard that permits if not encourages alcohol consumption while prohibiting a drug such as marijuana that is no more harmful--is unmitigated hypocrisy. The charges that other aspects of American life are rife with hypocrisy find support in invidious law of the marijuana type.

At the same time, it would not be unreasonable for a less informed young drug user to conclude that the drugs the establishment lists with marijuana in its laws--heroin, cocaine, LSD--are no more harmful than cannabis; that the legislators were wrong about marijuana, they must be wrong about the other drugs as well.

Indeed, the prohibition of marijuana use encourages rather than prevents exposure to narcotic drugs.

A person found guilty of possession of a small amount of marijuana on a second or subsequent offense can be punished just as severely as a person found in possession of heroin, a circumstance that minimizes the legal danger for an individual who wants the most effective drug available.

This situation is even more likely to arise due to the

nature of drug traffic. Most heroin dealers supply marijuana as well but most marijuana dealers restrict themselves only to the one drug, with occasional supplies of hashish, pills and hallucinogens. The hard drug dealers also often are involved with organized crime outlets that were long ago attracted to the hard drug business by the prospects of an expanding market.

Due to these circumstances, the drug user will also certainly come in contact with dealers who provide hard drugs--if marijuana sales are guaranteed them. The existing penalties for marijuana possession channel the casual user toward a criminal element and harder drugs, neither of which is of much value to society.

These prospects are especially frightening for teenagers who might be experimenting with beer and marijuana, for, while they are not certain to be exposed to this damaging criminal element when procuring their marijuana, the chances are good. Ironically, teenagers might more easily acquire marijuana than beer because beer is closely administered by merchants and government, which set the rules by which it may be acquired and consumed.

To paraphrase the favorite aphorism of another cause, if grass is illegal, only outlaws will sell grass.

Introduction to the criminal element and dangerous drugs may be a possibility in the process of procuring marijuana, but the exposure to negative influences is a near certainty for the 135,000 young people arrested annually for

possession of a small amount of marijuana.¹⁷

The 18 year old imprisoned--whether for a night or a year-- finds himself in the company of doubtless more experienced criminals who only too willingly offer their knowledge of unlawful life and the law that put them both behind bars. Rather than feeling repentent, the youthful offender is likely to feel a camaraderie with his older fellow convicts who might be more justifiably in jail. An 18 year old who has not seen the damage done by genuine criminals might regard the tales of bank robbery or theft as understandable and romantic.

Prof. Herbert L. Packer emphasized the damaging effect of true criminals on young people in his work, Limits of the Criminal Sanction, then considered the broader and more serious effects in the erosion of respect for society's laws.

The continued use of criminal sanctions against marijuana users is likely to hasten the diminishment of respect for the law among the younger generation. We seem to be faced today with a particularly severe crisis of confidence on the part of youth toward the society in which they live.¹⁸

Whether the young person exposed to dedicated criminality will maintain his contacts made in the workhouse or in the process of buying his recreational drug depends largely on society's ability to convince him otherwise. In the case of the young person who has been arrested, of course, society may throw away its chance by refusing to accept them. Employers, for example, often require potential workers to list arrest as well as conviction records. And many professions exclude felons.

These are conditions imposed by a dominant segment of the population on a minority in terms of power and probably numbers. But

majorities do not have a monopoly on the truth. The American republic, despite its democratic nature, requires that the rights of individuals and minorities be respected absolutely.

The limits of the application of this principle are not easily defined, although legal experts and jurists have sought to do so with increasing effect. The test most often applied to penalties for crimes such as possession of marijuana is whether the commission of the crime produces a victim.

The trend in jurisprudence is the reversal of laws that prescribe penalties for crimes without victims, for, if no individual or group of individuals has standing to complain, the adversary judicial system is difficult to apply.

As a result, the courts have moved toward withdrawing government from involvement in what Americans read or do in their bedrooms.

The foundation for this movement is Justice Brandeis' opinion in Olmstead v. United States, a 1928 wiretapping case.

The makers of our Constitution undertook to secure conditions favorable to the pursuit of happiness. They recognized the significance of man's spiritual nature, of his feelings and of his intellect. They knew that only a part of the pain, pleasure and satisfactions of his life are to be found in material things. They sought to protect Americans in their beliefs, their thoughts, their emotions and their sensations. They conferred as against the government, the right to be left alone--the most comprehensive of rights and the right most valued by civilized men.¹⁹

Olmstead was essentially a Fourth Amendment case

that focused on the right to privacy as a matter of being protected from unreasonable searches and seizures. But the issue of marijuana prohibition is one that extends into the purview of other constitutional guarantees..

The Minnesota Legislature avoided a direct confrontation with the First Amendment by moving in 1971 to allow for the use of peyote in Indian religious practices. But the First Amendment guarantee of free exercise of expression is still violated in the extension of the amendment to include associational rights.²⁰

Eighth Amendment prohibitions of "cruel and unusual punishment" are almost certainly violated by laws such as Minnesota's, that permit punishment of possession--not even sale--as a gross misdemeanor or felony. The disparity between the effect of the unlawful activity, in this case possessing marijuana, and the punishment, potentially imprisonment for years (for more than a "small amount") makes the punishment cruel, under the United States Supreme Court ruling in Robinson v. California. Justice Douglas wrote for the court:

Punishment all out of proportion to the offense may bring it within the ban against 'cruel and unusual punishments.'²¹

At the same time, the Fourteenth Amendment is violated by the governments' failure to apply a uniform standard to equally harmful intoxicants.

In order to satisfy the equal protection guarantee, a law, in pursuing its legitimate goals, must not invidiously discriminate against any particular group.

Making possession of marijuana illegal, while excluding other euphorics such as alcohol, might be considered a violation of the guarantee of equal protection.²²

But the Fourth Amendment should probably be of the greatest concern. The nature of the drug, its use and intoxication require law enforcement officials to violate personal privacy more consistently in their efforts to enforce the law..

Because the individual under the influence of marijuana exhibits his intoxication less predictably, officers often actually do not have probable cause to search an automobile, for example. This gives rise to practices such as peering into a stopped automobile, thereby seeing the remnants of a marijuana cigarette or two on the vehicle's floor. On the basis of such information police often arrest suspects.

This raises other questions regarding the individual right to associate freely with other individuals--a right that is abridged when a marijuana "roach" in close proximity is considered probable cause for arrest for possession of the drug. In the case of alcohol, whose effect can be determined consistently, drunkenness is evidenced by outward behavior and police could arrest a person in such a condition if he was operating a motor vehicle. His passengers, however, could not be taken into custody, regardless of their conditions.

Even if the marijuana had been consumed by one of the suspects, the remnants are not consumable, in much the way an empty bottle of liquor can lead to no further intoxication. In this case, or the case of an arrest at a private residence, the nature of privacy is apparent.

Possession of the full substance indicates the possibility for distribution, but, just as in the case of pornography, it is not objectionable to society--to society's interests--unless it is indeed distributed.

For the proposition that there is a fundamental right against unwanted intrusions into one's privacy, the upreme Court found it appropriate to cite the famous Brandeis opinion in Olmstead. The defendant, in the lower court action that led to Griswold v. Connecticut, "is asserting the right to read or observe what he pleases--the right to satisfy his intellectual and emotional needs in the privacy of his own home."²³

The existing marijuana laws are well-meant attempts at protecting the public's welfare, but they have proven to be inconstent documents, internally and in comparison to other statutes that restrict personal activity. And, to complicate matters, they are applied inconsistently. Failure to resolve the obvious conflicts does nothing to enhance respect for the governmental processes--the courts, the legislatures or the administrations.

Alternatives for resolving the unacceptable conflicts and confusion are many, but they fall generally into three moves that might be made by the Legislature.

First, possession and sale of marijuana could be legalized. This approach would doubtless encourage a increase in use, although it is unlikely that society's weak members would be intoxicated any more often or that the incidence of intoxication in general would increase. We might even see a decline in the drug's popularity among those attracted to it by its illegality.

The divisiveness the prohibition has caused would be eased and the criminal element that does business in the drug--particularly the very large volume dealers--would be put out of business or forced to engage in it legally.

The American business community would have another product that would generate millions of dollars in tax revenues. (Well over \$1.5 million annually in Minnesota, based on a conservative 10 percent excise tax.)

Law enforcement agencies could turn their energies to restricting the traffic in proven dangerous drugs. The court system could unburden itself of the lengthy and costly hearings and trials.

Generally, society would be able to control the

use of marijuana to an extent never before possible.

Second, penalties for possession could be stricken. The Legislature might desire to retain the "small amount" distinction, which would affect the drug's use, but likely not to a substantial extent. This approach has been called "decriminalization" because the drug would not be legal to the extent that it could not be sold. Yet one could have it in his possession. The intent of such an attack would be to focus attention on the "pusher" while permitting private use.

Presumably, persons wishing to consume marijuana would grow their own, although it is likely many persons would begin to acquire it as a gift from persons who would grow slightly larger crops.

As a result, the government would lose the benefits, if any, of control over the substance, including any tax revenues and increases in employment.

But the benefits of diminishing the divisiveness imposed by harassment and alienation would still accrue, although to a lesser extent.

Third, the Legislature could reduce the penalty for possession, most likely to a simple misdemeanor which would carry a maximum penalty of 90 days in jail and a \$300 fine.

The greatest danger in this approach is the retention of the potential for abuse. Police officers desiring to take an individual into custody for a major offense

might be tempted to use possession of marijuana as a surrogate charge until a case can be built on a more serious charge.

The only real improvement on the existing system would be the restriction of sentences that could be imposed on offenders. Most likely many judges would continue to order persons convicted of possession to participate in drug education programs or submit to probation.

The fact that marijuana consumers would still be subject to penalties would perpetuate their alienation and resentment from and of a system that imposes unreasonable restrictions on their lives.

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Marijuana: A Realistic Approach

GEORGE CHUN, M.D., Long Beach

■ *Much of the current confusion concerning marijuana has been caused by a lack of definition of terms. Variations in drug effect that are related to the type and potency of cannabis preparation and route of administration need clarification.*

When domestic strength marijuana is smoked recreationally, the subjective effects include relaxation, mild euphoria and increased sensory awareness. The objective effects include tachycardia, reddening of the conjunctivae and a distorted sense of time. Undesirable effects such as panic reactions, amotivational behavior, and acute toxic psychosis occur infrequently and are reversible with proper therapy. Other effects which have been attributed to marijuana are unsubstantiated.

The recent upsurge in use of marijuana involves persons of a different type than those who used it heretofore and has greatly increased the number of people familiar with the drug. The disparity between what many people know empirically and the information disseminated through official media has lessened the credibility of physicians with many of our younger citizens. When young people recognize misinformation about marijuana, they are no longer listening when the facts are presented about more dangerous drugs, and the abuse of these drugs must be our main concern. To be considered is the potential hazard to adolescent users who may concomitantly be exposed to a subculture of experimentation with stronger drugs at a time when the opinion of a peer group is a strong factor in their behavior.

THE ABUSE OF DANGEROUS DRUGS in this country is a growing problem which has not received the medical recognition and response that it deserves. When physicians have become involved with the problem, their efforts are too often ineffective. Unfortunately, the credibility of physicians is diminished with the young people most in need of

drug education, and this is largely due to the viewpoint on marijuana generally associated with the medical profession. Too many physicians have employed the traditional arguments against marijuana without first reviewing them for authenticity and applicability. In so doing, they fail to realize that many of these assertions are contradicted by the personal experience of a growing number of our younger citizens. It is becoming apparent that such an approach can only hamper

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Submitted November 17, 1970.

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our total drug education effort, because when young people recognize misinformation about marijuana, they are no longer listening when the facts are presented about more dangerous drugs.^{1,2} It is urgent for physicians and drug educators to develop a realistic approach to marijuana by reviewing the recent controlled research in this area and by acquainting themselves with the current sociological context of its use.

Marijuana

Marijuana is a mixed preparation of the flowering tops, leaves, seeds, and stems of the hemp plant, *Cannabis sativa*. The flowering tops of both the male and female plants produce a sticky resin which contains tetrahydrocannabinol or THC, the major pharmacologically active ingredient.³ The potency of the mixture depends on resin content and this is determined mainly by plant strain but also by factors involved in cultivation, harvesting, and preparation of the crop. The highest quality marijuana is derived from choice hemp grown in hot, humid climates with a final mixture containing mostly resin-covered tops and upper leaves.^{4,5,6}

Most of the marijuana in this country is either imported from northern Mexico or grown locally, and its THC content varies from near zero to 1.5 percent.⁷ Marijuana from more tropical areas is generally stronger. According to the Army Chemical Laboratory in Japan, "Viet Nam Green" from Southeast Asia is twice as potent as our domestic variety.⁸ "Acapulco Gold" grown in southern Mexico may contain as much as 2 to 4 percent THC. "Panama Red" imported from the Canal Zone is reputedly the strongest marijuana of all. Because of variations in potency, it is important to specify THC percentage before considering pharmacological effects, keeping in mind that the marijuana generally available in this country is approximately 1 percent THC.

Hashish

Hashish is the cannabis product obtained by separating the pure resin from the remainder of the plant. Pure resin can contain as much as 20 percent THC, so hashish can be up to ten times stronger in effect than the most potent marijuana regularly available in the United States.^{5,9,10} This difference in potency explains why hashish can produce hallucinations while such dramatic ef-

fects are not observed when domestic strength marijuana is smoked recreationally. Hashish effects are often incorrectly attributed to the weaker mixed product, so it is important to regard the two as separate entities, especially when reviewing the literature on cannabis from other countries.

THC

Tetrahydrocannabinol or THC is generally considered the main pharmacologically active principle of marijuana. In addition to being extractable from cannabis resin, THC can be synthesized, and it is currently being employed in research. Isbell studied the effects of synthetic THC on former marijuana smokers and found that these patients had an increase in resting pulse rate and became subjectively "high" after an ingested dose of 120 mcg per kg of body weight, or a smoked dose of 50 mcg per kg. He concluded that delta-9-THC accounts for most if not all of the psychotropics of marijuana.^{11,12}

In light of the fact that a white powder labelled THC has been sold on the street for only \$2.50 per capsule, it should be kept in mind that THC is difficult to manufacture and costs \$50 per psychoactive dose. On analysis this material sometimes contains methamphetamine, mescaline or LSD, but usually it turns out to be phenylcyclohexylpiperidine or PCP (sernyl, the "peace pill"), a veterinary anesthetic. Smith reported the case of a patient supposedly overdosed with THC who was treated with a phenothiazine tranquilizer because his physician had read that large amounts of THC could cause hallucinations. Unfortunately this patient was actually overdosed with PCP and the additional depressant led to coma, respiratory arrest, and death.¹³ It is important to remember that any patient supposedly overdosed with synthetic THC has almost certainly received something else, so treatment should be based on the symptoms and not the history.

Route of Administration

In this country, cannabis products are usually smoked, using a technique of deep inhalation followed by breath-holding, but they can also be ingested after incorporation into food or beverages. Generally speaking, smoking provides a rapid, titratable induction of drug effect while ingestion delays the onset of action for 45 to 60

minutes. More specifically, the influence of route of administration on subsequent drug effects depends to some degree on the substance used. Isbell demonstrated that synthetic THC is more effective when smoked than when ingested.¹² It has been postulated that synthetic THC may undergo heat-isomerization to a more potent compound with the combustion of smoking.¹⁰ With natural marijuana, however, a different response pattern is observed. According to Weil and others, ingesting natural cannabis products causes more powerful effects, more "LSD-like" effects, longer lasting effects, and more hangovers than smoking.^{1,6} Weil also reports that he has seen ten cases of acute toxic psychosis resulting from ingested cannabis, but has never seen a case caused by the smoking of marijuana.¹⁴ He raises the possibility that certain toxic constituents of natural cannabis resin that enter the body when the drug is eaten are destroyed by the heat of combustion.^{6,14} These variations in response according to route and substance used should be considered before any conclusions drawn from research involving oral administration of THC are applied to marijuana usage in general.

Subjective Effects

The subjective effects of marijuana usage are those which can be modified by the emotional set of the user and the mood of his immediate environment. When an experienced subject smokes domestic-strength marijuana in non-threatening surroundings for the purpose of reaching a "social high," the following subjective effects are produced. After a number of inhalations, a feeling of lightness develops in the extremities, followed by "rushes" of warmth and well-being that eventually lead to a sense of relaxation and mild euphoria. Sensory perception is heightened and accentuated but reality testing is not distorted. Lights seem brighter and colors appear more vivid. Certain sounds become striking in character and music takes on new dimensions. Appetite is sharpened and food and drink taste especially good. Time seems to stand still and there is an unusual ability to focus on a single object or event. Mental processes seem more acute and thoughts come rapidly. Through it all there is a curious feeling of being both involved and detached at the same time, and one feels that he can "pull himself together" and function normally if necessary. These effects are at their peak shortly after

smoking and they fade after a few hours, leaving a desire for sleep.

Objective Effects

The objective effects of smoking domestic marijuana in a neutral laboratory setting were well described by Weil, Zinberg, and Nelsen in a double-blind controlled study which considered the variables previously discussed. They found that smoking marijuana containing 0.9 percent THC caused moderate increases in resting pulse rate, reddening of the eyes from dilatation of conjunctival blood vessels, and subtle difficulties in speech involved with remembering the logical thread of what was being said.¹⁵ There was also a tendency toward overestimating the duration of a five-minute time sample. Contrary to popular belief, the pupils did not dilate. When mental functions and physical coordination were tested, the subjects who were smoking for the first time showed diminished performance, but the experienced users performed as well or better while "high." These effects were at their peak one half hour after smoking and gradually decreased until gone in three hours. From their results, the researchers concluded that marijuana, when smoked at the dose level usually found in this country, is a mild intoxicant producing minor, short-lived effects.⁶

More data is supplied by Crancer *et al*, who tested subjects on an automobile driving simulator while recording errors in performance. Subjects tested while intoxicated with alcohol had a mean score of 97.44 errors, significantly higher than the control group score of 84.46. In contrast, the subjects tested while "high" after smoking marijuana (1.3 percent THC) had a mean score of 84.49, which is not significantly different from the control value.¹⁶

The effect of marijuana on auditory and visual sensation was studied by Myers and Caldwell in a neutral laboratory setting. Subjects were tested after smoking cigarettes containing either 300 mg of crude marijuana (1.3 percent THC) or carefully disguised placebo. The results indicated no significant difference in auditory or visual discriminatory ability between the two groups.¹⁷

The neurological and electroencephalographic concomitants of a marijuana "high" were investigated by Rodin, Domino, and Porzak. In their study, ten medical students who were experienced users smoked marijuana (1.3 percent THC) in a laboratory setting until they had reached their

usual "high." The observed effects were considered minimal. Results of the neurological examination remained normal with slight improvement in appreciation of vibratory sense. Mental status examination showed a slight decrease in intellectual efficiency, some excess jocularity, and slight loosening of associations. The ability to execute Bender-Gestalt drawings was hampered slightly after smoking. The electroencephalogram showed a slight but statistically significant shift toward slower alpha frequencies. There were no significant changes in cerebral evoked responses. The investigators concluded that the subjective pleasure and relaxation which follow the recreational smoking of marijuana are accompanied by a very slight decrease in highest cortical functions.¹⁸

The effects of cannabis extract on perception, learning ability, and coordination were evaluated by Clark and Nakashima using orally administered, highly concentrated marijuana resin in contrast to the previously mentioned studies which employed smoked marijuana. The performance of subjects on six out of eight tests was unimpaired even by high doses of the concentrated drug. The authors found impaired performance in the tests involved with complex reaction time and digit-code memory. In subsequent studies, they related the impairment in these two test areas to a measurable distortion of time sense.^{19,20}

Tinklenberg et al conducted a double-blind controlled study to determine the effect of THC on cognitive tasks requiring recent memory. Calibrated doses of THC obtained by extraction from marijuana were administered orally to test subjects. The drug produced episodes of temporary impairment in recent memory that tended to be intermittent and brief in duration.²¹

Undesirable Effects

The undesirable constitutional symptoms occasionally seen with recreational marijuana smoking are not of a serious nature. Bronchitis and asthma may occur in susceptible individuals and any treatment required is symptomatic. Nausea and vomiting occasionally develop when a novice smokes too much, disappearing as the drug effect wears off.^{10,13}

A panic reaction to marijuana occurs when an individual becomes frightened of the effects of the drug and starts to doubt that these changes are reversible. Panic states are more common

among novice users who were ambivalent about trying the drug, and they are more frequent in areas where marijuana experimentation is considered deviant behavior. Panic is extremely rare in settings where marijuana is an accepted recreational intoxicant, especially among users who are receptive to its effects. Patients having panic reactions are able to demonstrate intact reality testing, so they should not be considered psychotic—merely frightened. According to Weil, treating them as psychiatric emergencies can actually prolong the panic by inadvertently confirming their fears of a mental breakdown. He said that medication and admittance to hospital are contraindicated except in cases of extreme agitation, and indicated that the best treatment is firm reassurance that the panic state is temporary and reversible as the drug effect wears off.¹⁴

An amotivational syndrome has been described in the small proportion of marijuana users who smoke heavily every day. Whether marijuana usage is a symptom, a contributory factor, or the primary cause of this syndrome is difficult to establish. In any event, the development of the syndrome is characterized by a progressive change from conforming, achievement-oriented behavior to a state of relaxed drifting. As a result, the person affected seems less willing to follow routines, endure frustrations or carry out long-range plans. In extreme cases greater introversion is exhibited, the subject becoming totally involved with the present while disregarding future goals. Persons in this condition tend toward child-like magical thinking and report greater subjective creativity but demonstrate less objective productivity.²² Smith considers the condition reversible, indicating that if smoking is discontinued and underlying problems can be resolved, the user returns to his pre-drug level of functioning.¹³

An acute toxic psychosis (acute brain syndrome) is a temporary malfunction in reality-testing that occurs in response to a toxin. Such a reaction can be caused by many agents, including cannabis products. The toxic psychosis induced by marijuana is self-limited, usually requires no drug therapy, and is not dangerous if the patient is protected from injury for the duration of his disorientation. Weil reported having seen ten cases of acute toxic psychosis resulting from ingestion of cannabis products, but said he had never seen a case caused by the smoking of marijuana. He observed that, after a certain point is

reached, even smoking very potent marijuana continuously does not make the smoker any higher—only more sedated.¹⁴ In contrast to this, Talbott and Teague reported 12 cases of toxic psychosis associated with marijuana smoking in Viet Nam. The authors indicated, however, that there is unusual environmental stress in Southeast Asia, and they also mentioned that about half of the already potent Vietnamese marijuana is adulterated with opiates.⁸

It has been charged that cannabis products can produce chronic psychotic states. Proponents of this indictment frequently cite reports from India and the Middle East, especially the work of Benabud of Morocco.^{23,24} With specific reference to Benabud's report on the cannabis situation in Morocco in 1956, Mikuriya pointed out that the study was done without controls and that psychiatric diagnosis was obtained by copying admitting data.²⁵ When considering the symptoms which Benabud described as characteristic of "cannabis psychosis," Grinspoon indicated that they are common to other acute toxic states such as those associated with malnutrition and endemic infection, particularly in Morocco.⁹ On a broader scale, Isbell referred to the reports from India and the Middle East as anecdotal clinical descriptions which are in most ways scientifically unconvincing.¹¹ Pillard indicated that these reports appeared to describe schizophrenic reactions in persons who also happen to be using cannabis.⁵ Allentuck and Bowman denied the existence of a characteristic cannabis psychosis, and stated that marijuana will not produce psychosis *de novo* in a well-integrated, stable person.²⁶ Some support for this contention can be inferred from the fact that there is no evidence showing that psychosis is more prevalent among marijuana users than among non-users of the drug.^{5,9} Well controlled, long-term studies in this field are needed before firm conclusions can be reached.

Hallucinations are not produced by the recreational smoking of domestic-strength marijuana, although such effects may follow the use of hashish or other concentrated cannabis products. This correlates with the data from Isbell's study using synthetic THC which determined that subjects became "high" after a smoked dose of only 50 mcg per kg of body weight, but there was no report of hallucinations until a dose of 200 to 250 mcg per kg was reached.¹²

Marijuana is not an addictive drug. Physical dependence and dose tolerance do not develop with its use, and withdrawal symptoms are not seen when usage is discontinued. The "psychic dependence" that may occur with marijuana can be classified as habituation, and it is not as strong as that seen with tobacco or alcohol.^{1,2,5,9,27,28}

There is nothing inherent in the pharmacologic properties of marijuana which leads to the use of more dangerous drugs, particularly heroin. The fact that many heroin addicts have smoked marijuana does not establish a causal relationship, especially in view of the overwhelming majority of marijuana smokers who never use heroin.^{1,2,5,9} Smith considers the "stepping-stone theory" invalid and maintains that any progression to stronger drugs that occurs is a result of personality and environmental factors and is not dependent on the pharmacological properties of marijuana.¹⁰

Marijuana does not cause aggressive criminal behavior.⁹ As early as 1894, the Indian Hemp Drug Commission concluded that there was little or no connection between the use of hemp drugs and crime.²⁹ In 1946, Bromberg and Rodgers studied 40 users and 40 non-users of marijuana who were naval prisoners, and the non-users of the drug were shown to have committed more aggressive crimes.³⁰ Maurer and Vogel stated that the effects of marijuana are minor compared with those seen with the abuse of alcohol, and they expressed belief that cannabis has received a disproportionate share of publicity as an inciter of criminal behavior.²⁷ Chopra et al pointed out that the pacifying effect of cannabis on an individual serves as a deterrent to violent behavior.²⁴ This view is shared by McGlothlin and West, who agree that the characteristic non-aggressive response to marijuana would tend to inhibit rather than cause violent crime.²²

Smoking marijuana does not lead to sexual debauchery. There is no evidence that cannabis is an aphrodisiac even though some users report greater enjoyment of sexual intercourse while "high." The reports most likely stem from the increased sensory awareness and the distorted time sense which would seem to prolong the duration of orgasm. Anyone who attempts to use marijuana as an adjunct to seduction, however, will generally be disappointed, for moral barriers remain intact.^{2,9,27}

Concerning the genetic consequences of using cannabis products, there has been no case of human fetal damage attributed to marijuana alone.⁵ Recent studies have shown that cannabis does not produce significant aberrations in chromosomes either *in vitro*^{31,32} or *in vivo*.³³ On the other hand, in studies in which rats, hamsters, and rabbits received large parenteral doses of marijuana extract during early gestation, an increased incidence of fetal malformation and rejection was reported.^{34,35} To keep such animal data in perspective, it should be noted that fetal malformations have been produced in mice under similar experimental conditions using comparable doses of common aspirin.³⁶ Even though the dose of extracted cannabis resin used in these animal experiments far exceeds the dose of marijuana ordinarily used by human subjects and despite differences in species response, it appears reasonable to caution women specifically against the use of marijuana during pregnancy.⁵

The possibility of cannabis-induced hepatotoxicity has been raised by Kew et al, who carried out an uncontrolled study of 12 marijuana smokers and found "evidence of mild liver dysfunction" in eight. Percutaneous liver biopsy in three subjects showed "striking parenchymatous degeneration." Unfortunately, there were no controls, and three of the test subjects were also users of alcohol while six took "pep pills" when available. A more carefully designed study must be done before firm conclusions can be reached in this matter.³⁷

Marijuana is a non-lethal drug in human subjects. A high degree of safety has also been demonstrated in animal experiments. The median lethal dose (LD₅₀) of synthetic THC in mice is 1500 mg per kg of body weight, and huge doses have been given to dogs without causing death.^{1,9,11} There has been no reported case of fatal marijuana overdose in man.^{1,9,38}

A Realistic Perspective

Before a realistic perspective can be developed, marijuana must be evaluated as a substance rather than as a symbol of the generation gap. The growing body of factual information must also be considered in relation to the current sociological framework in which marijuana is used.

At one time in this country, the use of marijuana was limited to jazz musicians, migrant farm laborers, and urban Negroes.^{6,11} In recent years, how-

ever, its use has become widespread so that users and experimenters are now found in almost every sector of society.^{5,39,40} As early as 1967-1968, Manheimer et al determined in a probability-sampled census-tract study of 1104 adult San Francisco residents that 13 percent of the total cross-sectional population had smoked marijuana; and in the age group 18 to 24, half the men and a third of the women reported previous experience with marijuana.³⁹ More recently, Hochman and Brill reported that 52 percent of the undergraduate students at UCLA have tried marijuana, while 34 percent use it once a week or more.⁴¹ Studies performed in high schools over the past four years indicate a steady upward trend in marijuana usage, so that now in some schools it is difficult to find a pupil who has not tried it.¹ Clearly, then, the use of marijuana has become fairly common in this country, and the sociological implications of this large population which is familiar with the drug through personal experience or observation must not be underestimated. The disparity between what is known by so many people empirically and the information disseminated through official media has caused the medical profession and public officialdom to suffer a general loss of credibility with a growing number of our younger citizens.^{1,2}

At one time, marijuana smokers were generally characterized as non-productive, sociopathic individuals, but the recent upsurge of marijuana usage among middle class Americans has rendered this appraisal invalid. In his San Francisco survey, Manheimer discovered that the majority of adult marijuana users were reasonably conventional people.³⁹ In their work at UCLA, Hochman and Brill found no difference between users and non-users with regard to number of interruptions in study, probations or suspensions. The marijuana users also had higher over-all grade averages, and twice as many users as non-users were going on to graduate studies and advanced degrees.⁴¹ This latter trend is already in evidence at the UCLA School of Medicine, where, it is estimated, 75 to 90 percent of the medical students have had experience with marijuana.¹ We must recognize that instead of being characterized as non-productive sociopaths, many of today's marijuana users can be better described as socially perceptive, functioning individuals who offer a great deal of potential contribution to society.^{1,5,40,42}

For many years, marijuana smoking was generally considered deviant behavior, but among the younger age groups in our current society, a different frame of reference is developing. In the youth culture, marijuana is smoked by individuals for its relaxant effects and by couples and groups as a social lubricant in much the same context as their elders use alcohol.² Vogl and others have noted that many young people no longer regard marijuana as a dangerous drug but classify it instead as a social intoxicant.^{2,43} In 1968, a Michigan Health Department study involving 1379 high school seniors concluded that among young people the use of marijuana represents a social form of recreation far removed from the traditional problem of narcotic addiction.⁷ It is important to recognize that the majority of the people in this country who currently smoke marijuana are occasional users who employ it in a recreational sense to reach a "social high" rather than a psychedelic experience.^{2,10}

Marijuana itself was characterized by the Federal Bureau of Narcotics in the 1930's as a "killer drug" that caused "murder, insanity, and death"; but more recent controlled studies have shown that its effects are far less devastating than previously described.^{6,10-18,20} What may be the greatest danger of marijuana is situational rather than biological and it applies more to younger users. Unlike adult recreational smokers, adolescent users are more likely to be introduced to a drug subculture where they encounter opportunities to experiment with stronger drugs at a time when the opinion of their peer group is a major determinant of their behavior. Although this is a potentially hazardous situation, it should not be used to justify the perpetuation of misinformation about marijuana, because such deception is self-defeating. When young people hear lies about marijuana, they are no longer listening when the truth is told about more dangerous drugs, and the abuse of these drugs must be our main concern.^{1,2}

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The Marijuana Problem

THE EPIDEMIC-LIKE SPREAD of the use of marijuana in the United States in the past few years has caused a great deal of anxiety in the public. The extensive use of marijuana that was first seen on college campuses has spread downward into the high schools and the elementary schools and into the communities where it now is not

confined to any age, social or occupational group.

In the past, marijuana use was frequently associated with psychopathy and most narcotic addicts gave a history of having used marijuana before starting on "hard" drugs. Passage of the Marijuana Tax Act in 1937, the listing of marijuana along with opium and coca leaves on the Special Tax Stamp, and the removal of marijuana from the United States Pharmacopoeia and the National Formulary in 1941 gave the impression that marijuana was a "narcotic," that it was addicting and therefore dangerous. It became extremely difficult for investigators to obtain either a license or the drug, and research on the drug for all practical purposes ceased.

It was known that practically all hippies used marijuana and that many of the youngsters who were dropping out of school or developing into serious behavior problems at home were using drugs.

Harsh penalties, intensified police activity to apprehend the law-breaking marijuana user, statements about dangers issued by the Committee on Problems of Drug Dependence of the National Research Council and the Committee on Alcoholism and Drug Dependence of the AMA Council on Mental Health, warning by the World Health Organization, and educational programs in schools had little or no effect in stemming the rising tide of marijuana use.

The use of marijuana was associated with experimentation with many other drugs—LSD, peyote, mescaline, amphetamines, barbiturates, hashish and the volatile component of glues. Increasing numbers of parents seeing their children behaving peculiarly suspected they were using drugs, but were at a loss to know what to do.

Physicians who were consulted by concerned parents, law enforcement officers and legislators often expressed opinions about the drug which were based on prejudices rather than knowledge, or on "the little knowledge" that proverbially is a dangerous thing.

Many conflicting opinions were expressed. There were many respected lawyers and teachers who advocated legalizing marijuana. Many investigators urged caution in coming to any conclusion regarding the effects of continued marijuana use, pointing out that no reliable long-term studies had been done. Revolutions in dress, in sexual behavior, in manners, and in attitudes toward life, authority figures and the

establishment developed simultaneously with the increase in use of marijuana. This explains in part the feeling that marijuana use is an expression of rebellion against parents and the establishment, and indicative of a social change that is of even greater concern at present than the impairment of health that may result. Some observers have felt that the illegality of marijuana was a motivating force rather than a deterrent.

It has become obvious that to look upon the people who use marijuana as all alike would be as unfounded as thinking of all those who use alcohol as being the same.

Marijuana is used for a wide variety of reasons. Some people have tried it out of curiosity and quit. Some continue to use it sporadically on the urging of friends or because of a wish to belong. Some use it occasionally for relaxation, some for stimulation and some for socializing and to remove inhibitions. The intoxication that is experienced seems to be associated with a transient toxic encephalopathy that produces measurable changes in some aspects of brain function that are described in Dr. Chun's excellent review article on marijuana in this issue.

The effects that are sought by the social user seems to be euphoria or feeling of well-being, a decrease in social anxiety, sharing an experience and often an increased sensual experience with music, colors, or beauty. Social users hardly ever have a bad reaction or, as far as is now known, any serious long range ill effect—or habituation.

There are those, however, who have used marijuana frequently over a long period primarily as an escape from reality or as a means of making life tolerable. These users, who are dependent on marijuana and almost without exception use other drugs, too, in some respects, resemble chronic alcoholics but are often more disturbed. The other drugs they use produce far more problems than the marijuana.

Studies of personalities of users and non-users on a college campus revealed far less in the way of differences than would be expected. Even chronic users were found to be doing well in their work and in their lives. They did not show the poor motivation, the apathy and relaxed drifting that has been described by some observers as a frequent complication. It is possible that some portion of those who may have been so affected have dropped out of school, but the size of this group is simply not known.

There is no doubt about the existence of very serious emotional disorders in some chronic marijuana users (or abusers). Some have severe personality disorders and some are borderline or overt schizophrenics. Many need to be treated in hospital for severe disabilities. Many were clearly ill before they started using marijuana (and other drugs). In some instances a psychiatric illness appears to be precipitated by excessive drug use

(including marijuana) but even here pre-existing significant psychopathology is the rule rather than the exception. It is not unusual to see a patient who has used marijuana to escape from reality. Some patients decompensate while seeking mystical experiences or psychological insights. Acute psychiatric reactions following marijuana use have been described. However, they are rare and clear up rapidly with treatment when the predisposition was not great. Hekimian and Gershon¹ reported that 50 percent of drug abusers who were admitted to Bellevue Hospital had been schizophrenic before taking drugs.

The widespread use of marijuana is still so new that there is as yet no reliable data on the effects of frequent, continued use. Prospective studies may help in distinguishing between the roles of premorbid personality and drug effect in persons who show adverse reactions.

Animal experiments indicate that, as compared with alcohol or barbiturates, marijuana is an unusually safe drug. Huge doses have been given without causing death. Nor have there been any reliable reports of human fatalities. The Indian Hemp Commission that studied the problem of marijuana use over 75 years ago² concluded after a most careful and exhaustive investigation that there was no connection between marijuana and violent crime and that *moderate* use produced no moral injury. The Commission concluded that "excessive consumption, on the other hand, both *indicated* and *intensified* moral weakness and tended to lead to loss of self respect, occasionally to dishonest practices that were associated with degraded poverty but rarely with violent crime." There was no evidence of its producing chronic insanity except as might occur with chronic excessive use of alcohol.

It seems clear that marijuana is not addictive. Its use does not result in physical dependence. Tolerance does not develop and discontinuance of marijuana does not produce withdrawal symptoms. Nevertheless, as McGlothlin³ and others

have pointed out, the concern about marijuana is not limited to the harmful effects that drug abuse may produce in individuals, but to the burdening of society with the care and support of persons who may become disabled. But of even greater importance is the possibility that marijuana abuse is a new form of disaffection—a symptom of dissatisfaction with the present values, ethics and direction of society, the solution of which lies in the resolution of some of the major conflicts between the younger and older generations, such as those about the Vietnam war.

Not only is there a need to maintain an unbiased perspective about the "pot scene" that has been unfolding, but a need to develop imaginative controls to replace the punitive approaches that seem to have aggravated rather than solved the problem.

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The New York Times

Consumer Union Urges Federal and State Drug Law Reform.

CONSUMERS UNION SCORES DRUG LAWS

5-Year Study Urges Repeal Of All Marijuana Statutes —Heroin Clinics Backed

By ROBERT D. McFADDEN

The Consumers Union, after a five-year study of drugs, has recommended the immediate repeal of all Federal and state laws against marijuana, the establishment of experimental heroin maintenance programs and a nationwide ban on cigarette and alcohol advertising.

The union, which for years has rated consumer products and services for subscribers, presented these and other recommendations—and a wide array of supporting data—in a 623-page book, "Licit and Illicit Drugs," by Edward M. Brecher and the editors of Consumer Reports, the union's monthly magazine.

The book, published on Monday by Little, Brown & Co. in a hardcover edition selling for \$12.50, is described as the union's report on narcotics, stimulants, depressants, inhalants, hallucinogens and marijuana, and includes sections on caffeine, nicotine and alcohol.

Mr. Brecher, a writer on medical and scientific subjects, was a principal collaborator on the 1963 Consumer Union Report on Smoking and the Public Interest, which provided

data for the Surgeon General's Advisory Committee on Smoking and Health and its 1964 report on the hazards of cigarette smoking.

After the publication of the 1963 report, according to the current book's introduction, a similar study on drugs "seemed urgently needed" in light of the widespread problem of drug abuse.

"The impression of Consumers Union is still dominated by our testing of products," observed Walker Sandbach, executive director of the organization, in a telephone interview yesterday. "But people forget that we've long been interested in medical products."

Since Consumers Union had written at length about the "licit" side of drug use and abuse, he said, it seemed appropriate that the group should also venture to comment on the "illicit" side as well.

"We hope it will elevate the discussion that's going on," he said of the new study.

Study of Available Data

The new book on drugs was based on a study of available literature on the medical, pharmacological, sociological, psychiatric and psychological aspects of drugs, including many still unpublished scientific reports.

Anticipating some "indignant objections to our recommendations," the authors urged a careful study of the supporting data and drew the conclusions on various drugs.

On heroin they urged the following:

¶The nation's policy should be revised to "insure that no narcotics addict need get his drug from the black market."

¶Methadone maintenance should be "promptly made available under medical auspices to every narcotics addict who applies for it."

¶Along with methadone, other narcotics maintenance — "including opium, morphine and heroin"—should be made available "on a carefully planned experimental basis."

Describing the British experience with heroin maintenance as "magnificent," the authors observed:

"An addict is personally far better off on legal, low-cost, medically pure opium, morphine, or heroin than he is on exorbitantly priced, dangerously adulterated, and contaminated black-market heroin."

Society, too, is "better off when addicts receive their drugs legally and at low cost or free of charge," they added.

Marijuana Recommendations

On marijuana, the authors recommended the following:

¶Repeal of laws against the growing, processing, transportation, sale, possession and use.

¶Passage of new state laws legalizing "the cultivation, processing and orderly marketing of marijuana subject to appropriate regulations."

¶Establishment of a national marijuana commission to provide states with research data, monitor various state plans and eventually, build "the best features of those plans into Federal marijuana legislation."

¶Moderate taxation of marijuana, with proceeds to go to drug research and education.

¶Pending full legalization, an immediate end to imprisonment for possession or transfer among friends, classifying these as "civil violations."

¶The release of all those in prison for possession or sharing of marijuana, with such offenses expunged from legal records.

Quick Action Not Expected

The authors said they were recommending legislation of marijuana not because they believed it was "safe or harmless," but rather because they believed that an orderly system of legal distribution would sepa-

arate marijuana from heroin black-market channels, limit the exposure of smokers to other illicit drugs and "end the criminalization and alienation of young people and the damage done to them by arrest, conviction and imprisonment for marijuana offenses."

The authors said it was "hardly likely" that Congress or the state legislatures would legalize marijuana promptly, but they contended:

"It is now much too late to debate the issue: marijuana versus no marijuana. Marijuana is here to stay. No conceivable law enforcement program can curb its availability."

Contending that the nation's alcohol problem is "a far larger problem, no matter how measured, than all other drug problems added together," the authors said that "the ideal solution is to raise a generation of young people whose needs" for alcohol and pharmacologically similar barbiturates are "minimal."

As interim measures, however, they recommended:

¶A prohibition of all advertising and promotion of alcoholic beverages.

¶Placement of health hazard notices — similar to those required on cigarette packages — on all alcoholic beverage labels.

Noting that cigarette consumption—after seven years of anticigarette drives—is close to its all-time high, the authors recommended:

¶A ban on all cigarette advertising and promotion, including point-of-sale displays and vending machines. Present laws ban cigarette ads on radio and television.

¶Development of smoke-free alternative ways of taking nicotine to satisfy the craving, including inhalers or perhaps pills or chewing gum.

¶Stepped-up antismoking campaigns, including messages about nicotine addiction "wov-

en into the school curriculum."

The authors cautioned that these and their numerous other recommendations were "not intended as a blueprint" for solving drug problems overnight, but rather as "an approach worthy of consideration and trial."

reprinted from page 1 and 26

WEDNESDAY, NOVEMBER 29, 1972

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PERSPECTIVE, Associated Press, Jan. 26, 1973

NEW YORK--Legalization of marijuana seems as elusive at present as the ultimate high. But there is growing support that at least its personal possession and use should no longer be considered a crime.

Many law enforcers, drug experts, state legislators and various national organizations have been speaking out in favor of decriminalizing marijuana. Nevertheless, a majority of the the American public is resistant to any changes regarding its legal status.

At least 24 million Americans have tried marijuana at least once. That's about 15 percent of the adult population, according to the National Commission on Marijuana and Drug Abuse. A 1971 Gallup Poll indicated that 51 percent of all college students had--at that time--smoked it.

Statistics on prisoners convicted of marijuana possession are unavailable. But according to the American Bar Association, there are about 225,000 arrests involving marijuana each year. More than 90 percent of these arrests are estimated to be for simple possession, with two-thirds of those for less than one ounce.

Thousands of young people currently are serving jail terms ranging from 90 days to life for marijuana possession.

The prevalence of the drug, the harsh laws that still prohibit its use and the ensuing disregard of the law by so many people have led a cross section of the nation's leaders to reevaluate the current marijuana legislation.

The national commission found that public attitudes toward marijuana are often confused. The majority are aware of the problems involved in processing marijuana users, who are concentrated heavily in the 16-25 age bracket, through the criminal system. But two-thirds of adults surveyed thought making marijuana legally available was unacceptable.

Proponents of marijuana reform argue that present laws are causing more harm than the drug itself. The American Medical Association, the National Institute for Mental Health, the American Bar Association, the Consumers Union and even conservatives like columnist William Buckley and Arizona Sen. Barry Goldwater have called for a reduction of penalties for use and possession.

A sampling of attitudes among law enforcement officials turned up this pattern--deep concern about hard drug abuse and crime related to it has led to more tolerance of marijuana use in large cities.

Amid the debate over criminalization, the trend for lighter penalties is firmly established across the nation.