The overall thrust of these 2 papers is that, with widespread drug use, we must re-examine motivation for drug usage and clearly distinguish between drug use and abuse. Considerable data is included on: (1) patterns of use; (2) relationships of use with user attitudes and use; (3) the educational level of beginning users; and (4) attitudes and values related to use. The widespread usage of drugs demands that the common practice of analyzing causation on a basis of personality differences between users and non-users be re-examined. Such analysis must take into account not only the user, but also which drug is used and cultural-environmental factors. The author, while acknowledging a continued role for personality variables in such analyses, clearly sees a trend toward explanatory mechanisms drawn from the study of collective behavior. Disavowing the usual moral-based refusal to distinguish between illicit drug use and drug abuse, the author offers a value-free view of usage which is related to the problems of adolescence and of secondary education: the adolescent wants to feel better, believes that drugs will work, has no constraints against using them, and has the opportunity.
Motivations for Psychoactive Drug Use

Among Students

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Report No. 71-15
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Joel W. Goldstein

Abstract

Drug usage is a complex behavior with multiple causes. Motivational causal analysis is useful in specifying who within a given demographic category is most likely to engage in this behavior. In the past, however, personality analyses of usage motivation and causation have often been used to stigmatize users and to deprecate their usage. Studies comparing degree of usage of a given drug and personality scales show impressive similarity of findings. The similarity of personality profiles of users of a wide variety of drugs with each other is also impressive and only recently has attracted the attention of investigators. For example, teenage cigarette smokers, college student marijuana users, college student amphetamine users, college student drinkers, and Haight-Ashbury multiple drug users all score lower than nonusers of these drugs on scales assessing satisfaction with self and higher on scales assessing flexibility. Detailed data on amphetamine, marijuana and hard liquor use by a university freshman class (N=752), tested during their first days at college, was obtained as part of a major all-university drug study. Comparisons of scores and scale configurations on the California Psychological Inventory and on the Allport-Vernon-Lindzey Study of Values reveal substantial agreement in the pattern of user-nonuser differences for all three substances.

Rather than label drug-taking behavior as "pathological" it is suggested that a value-free model of approach and avoidance forces be used to better clarify the relationship between the various usage correlates discovered to date. Such an approach has the additional virtue of helping to prevent the exacerbation of personal and social difficulties (the "drug problem problem") which sometimes accompany efforts to combat drug usage. Labeling adherants of deviate behavior as pathological often is disguised circular reasoning; further, it increases the likelihood that they will be treated unjustly while not advancing understanding of causation or, where needed, treatment. To lessen the problems of drug abuse we must separate it from drug use by criteria based upon deleterious effects, not merely on unauthorized use, and when we do this we find that the amount of drug abuse which exists is but a small fraction of even illicit use. Motivational analyses which distinguish between users and abusers are now needed to guide therapy with abusers and to help us in understanding the relationships between innocuous and deleterious use.


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Joel W. Goldstein

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Drug use is a behavior with causes at many levels of molarity, ranging from historical-cultural socialization of usage to genetic predispositions. Past explanations of specific episodes of drug use have tended to concentrate on a few explanatory variables, usually at the same moderate level of molarity. The upsurge in psychoactive drug usage in the United States has lead to research which adhered to this pattern of explanation at first, but which is now displaying increasing sophistication. The first reaction to greatly increased usage among youth was to conduct surveys asking, in effect, "How many people are taking these illegal drugs?" This was followed by surveys asking, "Who is taking what?" Currently, research is expanding into more sophisticated analyses of causation. Personality studies have been a favorite of psychologists. As certain forms of usage become more prevalent, relationships with personality variables can be expected to weaken, and explanatory mechanisms drawn from the study of collective behavior will become increasingly relevant.

What continuing role, then, for personality variables in understanding widespread drug use? Several possibilities exist. As the extent of usage increases, personality variables may still be of interest in delineating user-nonuser differences; however, the nonuser may become of primary interest. This situation exists in some studies of alcohol usage. Further, we would expect to continue to find that degree and type of usage would still be related to these variables, with extreme patterns being most readily identifiable. It is extremely frequent use, and use of the more potent drugs, which arouses greatest public concern, of course.
Our consumption of motivational analyses should be especially cautious because drug usage is perceived with ideological overtones which are not always recognized. The problem of the investigator here exceeds considerably what has become normal concern for experimenter bias. Drug usage has strong attitudinal correlates. The early and pervasive socialization of these attitudes makes it especially difficult for him to avoid premature conclusions in evaluating the meaning of drug use behavior. Drug use comes in many types, but all of them have their adherents and their detractors who, in turn, have built up elaborate cognitive rationales for their behaviors and their beliefs. Indeed, one theory of social psychology suggests that involvement with a new behavior itself leads one to change his attitudes about that behavior (Bem, 1967).

In our study of student drug usage (Goldstein, Korn, Abel, and Morgan, 1970; Goldstein, 1971) we not only found that use was related, as expected, to benign perceptions of drug effects (perceptions which were somewhat more accurate than those of nonusers), but that users of illicit drugs tended to estimate the percentage of such usage on campus at twice the figure of the "straight students" - those who used not even alcohol - and who, incidentally, estimated the percentage almost perfectly! Perhaps seeing more usage than there is, is a way to reduce the perceived degree of personal deviance associated with one's behavior. Of course, the exaggerated descriptions of the dangers of such drugs by their opponents (see discussions in Goode, 1970; Kaplan, 1970) and by nonusers (Goldstein et al., 1970, 25-26, 57) are well known.

It is essential that we remember that not all users are in trouble. That is, if one defines "trouble" as life-disturbance, produced by drug use
or by a use pattern that leads to such disturbance with a high degree of probability, then most drug use in our society, including the vast majority of illicit use, does not result in such trouble. The tendency of some in the medical and other professions, therefore, to define any illicit use as abuse is not definition based upon effects of use. To be able to help those in trouble and to prevent others from having such experiences, we need to know more about those who do get into difficulties as a result of drug use. The general question for the drug usage motivation researcher is, I submit, "What is the role of usage in the life of the user?"

In investigations of the meaning of drug use from this point of view, it must be recognized that the phenomenon of interest is not static. The meaning of usage differs greatly from culture to culture. For example, Jessor, Young, Young, and Tesi (1970) found that frequency of alcohol use and drunkenness was associated with frustration, dissatisfaction, and feelings of powerlessness in a sample of Boston adolescents of Italian origin, but not in adolescents in Southern Italy. They conclude that, for their American, but not for their Italian youth, heavy drinking is seen as an appropriate way to respond to personal frustration — especially that resulting from a failure to achieve one's goals. We obtained clear differences in usage patterns for students from various religious and social class backgrounds attending the same University (Goldstein et al, 1970, 20-24). Data such as these suggest that socialization has considerable influence upon the manner and personal meaning of drug use. Psychological interpretations of use from the user's point of view differ widely with different cultural backgrounds, and thus inferences of the evaluation of drug use by the participants which are based upon the mere existence of use run the risk of frequently being erroneous.
The meaning of usage also changes over time within the same culture and for the same individuals. Ray (in press) indicates that the President's position on illicit drug use in our society has shifted from an emphasis on tough law enforcement in 1968 to one also advocating education and understanding in 1970. Not only governmental and public opinion, but also the characteristics of drug users change with time. The first participants in a deviant behavior are, it is proposed, highly distinguishable from the rest of the populace. We would expect to find that they are less closely tied to traditional mores and are more open to and eager for new experience. Not only do we expect their personality profiles to be distinct from the mass of adherents who follow them in the successful new trend, but we should also expect their patterns of usage to be different.

In our study of drug usage by all students at our university in 1968, we offered respondents 25 different possible reasons for using each of the 17 drugs about which we asked. For marijuana and even for the more exotic drugs, LSD and mescaline, the exotic reasons offered were usually passed by in favor of "curiosity" and "to get high, feel good." One surmises that the first entrants into the unknown utilize elaborate mystical-religious preparatory rituals as socialization vehicles to provide them with positive expectations and confidence to sustain them in their "risky" endeavor. As usage expands and experiences are shared such elaborate preparations may come to be seen as less necessary and shortcuts may be taken; ("Maybe I don't have to read all of the "Tibetan Book of the Dead..."). Sometimes early adherents will derogate the cheap "body highs" sought by those who forego the ideological context which they used so faithfully to give meaning to their usage.

These trends toward wider use and more routine definitions of use indicate that the society generally is becoming less "straight" and that illicit
drug use is becoming less deviant. As behavior can change attitudes at the individual level, changes in statistical norms produce changes in the moral norms of society. Can a majority behavior be deviant in either the statistical or the moral sense? It can, but those who view it as such are usually to be found outside of the setting in which the behavior predominates. Thus, adult drug use, largely alcohol, tends to be looked upon as less deviant than youthful use of empirically less harmful drugs such as marijuana.

Empirical studies relating personality scales to drug usage are becoming increasingly abundant. The similarity of findings of studies where comparisons can be made is impressive. Thus, several studies utilizing the California Personality Inventory (Haagen, 1970; Hogan, Mankin, Conway and Fox, 1970; Blum, 1969, 236-237; Goldstein, et al., 1970) with virtually the same profile for youthful users of illicit drugs. Further, where comparisons can be made to other instruments, the conceptual relationships obtained seem to be consistent with the CPI results.

A second type of similarity of findings in drug use, personality studies, is only recently being discussed (Brehm and Back, 1968; Goldstein, et al., 1970): patterns of user-nonuser trait differences are very consistent for a wide variety of drugs and types of users. For example, teenage cigarette smokers, college student marijuana users, college student amphetamine users, college student drinkers, and Haight-Ashbury multiple drug users all score lower than nonusers of these drugs on scales assessing satisfaction with self and higher on scales assessing flexibility. Brehm and Back obtained congruent data on the relationship of predilection to use a wide variety of drugs and a personality battery. They suggest that drug usage motivation may be conceptualized as what may be called an approach-avoidance process. Motivation towards drug use loaded heavily on a factor they call Insecurity, and this
relationship held across energizers, hallucinogens, opiates, stimulants, tobacco, intoxicants, sedatives, analgesics and tranquilizers. A factor labeled Curiosity related significantly only to willingness to use energizers, hallucinogens and opiates, but not the other substances listed. Such factors were said to indicate "dissatisfaction or feelings of inadequacy" and these, coupled with the absence of restraints against self-administered drug use, predict a willingness to use drugs in general.

Our study dealing with actual usage rather than willingness to use is supportive of the Brehm and Back findings. In agreement with the other studies utilizing the CPI we find among Carnegie-Mellon University freshmen that those with any marijuana experience score especially high on the social presence and flexibility scales, and especially low on the sense of well being, responsibility, socialization, communality and achievement via conformity scales (Table 1). This pattern would seem to represent a configuration compatible with the approach-plus-lack-of-avoidance motivation position. When

Table 1 about here

the user-nonuser differences are compared for the other two substances, amphetamines and liquor, we again find behavioral support for the attitudinal relationships of Brehm and Back. The scale mean patterns and significance levels of the comparisons are very similar. There seems to be a general predilection to use drugs which has validity across substances. Additional differentiation, not yet fully developed, should be able to predict the particular drugs of preference. Some interesting clinical suggestions of this sort have been made by Weider and Kaplan (1969) using a personal need model. An interesting note from our data in Table 1 concerns the only reversal of direction.
in the 24 scale means for all three substances: on the power scale of the AVL we find that liquor users are more concerned with power issues than non-users, while the reverse is true for amphetamine and marijuana users.

The approach-avoidance model of drug usage motivation is suggested as an alternative to more elaborate models because it is (a) more parsimonious, and (b) it avoids the pejorative labeling inherent in almost all of these other models. The arguments for parsimony are well-known. The existence of pejorative labeling is not widely recognized. Such labeling exists within both the medical and the behavioral science literature. One psychiatrist with six years of experience of treating narcotics addicts prior to becoming director of a methadone maintenance program in 1969 suggests that the negative labeling is a result of treatment personnel seeing addicts at their worst; he reports that those in methadone maintenance programs probably exhibit no greater incidence psychopathology than the population at large (Ekstrand, 1971). Behavioral scientists, like the populace at large, have been socialized to view illicit drug usage as deviant behavior impelled by pathological motives. This socialization produces a subtle ideological bias: given personality data which indicates differences in user-nonuser personalities there is an enhanced tendency to evaluate the differences as indicative of pathology.

But what of drug abuse? Surely that is not to be denied! It is not, but, as suggested earlier, abuse is only meaningful in terms of deleterious effects or of behavior patterns which lead to such effects with a high degree of probability. Labeling any unauthorized use as abuse is merely circular reasoning. Further, it may create difficulties in a variety of ways: a self-fulfilling prophecy may be set up wherein drug users come to view themselves
as "outlaws," and disrespect for law in general is engendered. Such labeling by fiat also exacerbates the "Drug Problem problem" as Helen Nowlis has called it (Nowlis, 1969, xii). This refers to all those difficulties created by societal responses to drug usage rather than by drug effects themselves. The cost to society of this problem is not readily calculable but it may exceed the cost of actual drug-induced problems. It includes destroyed trust between users and nonusers, police and legislative actions with unintended consequences, and the vast costs entailed in attempts to arrest, prevent and otherwise discourage certain types of drug use while other types of a more serious nature do not receive the attention they deserve. A discussion of the costs of the marijuana laws which develops this point is made by Kaplan (1970). Resistances to changing the definition of abuse to that of a criterion-dependent state may be due to our reluctance to recognize that many of our "drug problems" are, in part, a product of our drug control policies, and of other general societal deficiencies.

Motivation to begin and to continue and sustain psychoactive drug use can be clarified by using the approach-avoidance model. Following Dollard and Miller's discussion of drug effects (1950, Chap. 23) we should remember that drug use in some cases may be self-administered therapy designed to remove unsatisfying personal states. Many of the favored drugs have the effects of alleviating anxiety; thus, their usage is self-reinforcing. The chemo-therapy works—at least on a short term basis. Unfortunately, such use may provide only temporary relief in the absence of an external therapist to use the state of lowered anxiety to decondition the aversive stimulus situation of its anxiety-provoking properties. Even temporary relief, however may be seen as
preferable to no relief. It may be that illicit drug use, while sometimes creating medical and psychological difficulties, may also be serving for some as a deterrent to the onset of personality disorders and more serious self-destructive behavior.

When the plea is made to define abuse in terms of effects it is acknowledged that these effects may be at the societal as well as at the individual level. Thus, if widespread marijuana use led to an overall lowering of national achievement—and it is by no means clear that it would—there would be justification, in my view, for labeling the general behavior pattern as abuse even if the effects upon individuals are not vividly destructive. Here we must recall, however, that changes in our national motivational patterns are seen outside of the arena of illicit drug usage as well as within it. The solution to abuse at the societal level would appear to lie at that level, and not in ignoring general national trends and in focusing blame on individuals.

Despite widespread beliefs to the contrary most illicit drug use does not result in obvious deleterious effects to the student user. Our data indicate, for example, that only 7% of those with use of amphetamines 10 times or more (outside of medically directed use) have had a disturbing or upsetting experience with the drug, and that only 1% of those with at least ten exposures to marijuana, and 4% of the one-time marijuana "tasters" had such experiences with this drug.

Psychoactive drug effects are determined by interactions of the characteristics of the agent, the user and the conditions and setting of usage. The interpretation of these effects, furthermore, is subject to socio-cultural as well as to psychophysiological determinants. Thus we were not surprised to
find that novice users reported somewhat greater percentages of negative drug experiences than did the sophisticated users. Among the latter reactions to drug-induced experiences are flavored by more clearly defined expectations and greater objective knowledge about the drugs used.

While drug abuse is but a small part of total illicit drug use, it still is a significant phenomenon both in terms of the absolute numbers of persons involved, the trends towards usage at earlier ages, and the extremity of the reactions in some instances. In order to be able to anticipate which persons are likely potential abusers and to increase the effectiveness of therapeutic interventions with actual abusers additional research is needed. I would like to suggest that a major need is for motivational analyses which empirically differentiate between the person who uses psychoactive substances without harm to himself and the person whose use leads to personality disorder, blocked self actualization or medical problems. Given the extensiveness of psychoactive drug use in our society by both adults (Parry, 1968; Mellinger, Manheimer, and Balter, no date) and youth generally (Berg, 1970) solutions to drug abuse which aim for abstinence seem foredoomed to failure. Psychoactive drug use must be fulfilling substantial significant needs to be so widespread. Furthermore, there are serious, though often unrecognized, constitutional and moral issues lying beneath the surface of any attempts to impose bans on psychoactive drug use per se without regard to the consequences of use in a given person. The question of the right to pursue happiness chemically will no doubt stimulate a major debate in the years just ahead.
References


Table 1

CPI and AVL Scores of Freshmen Who Have Never Used Amphetamines, Liquor and Marijuana Compared to Scores of Users

<table>
<thead>
<tr>
<th>Scale</th>
<th>CPI Never Used N=679</th>
<th>CPI Any Use N=73</th>
<th>t</th>
<th>p</th>
<th>CPI Never Used N=528</th>
<th>CPI Any Use N=151</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dominance</td>
<td>49.8 48.6 0.80 n.s.</td>
<td>49.3 49.8 0.39 n.s.</td>
<td></td>
<td></td>
<td>49.7 49.3 0.40 n.s.</td>
<td>52.1 2.66 .01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Capacity for Status</td>
<td>50.1 52.5 2.06 .05</td>
<td>49.3 50.7 1.92 n.s.</td>
<td></td>
<td></td>
<td>49.8 52.1 0.12 n.s.</td>
<td>56.8 4.91 .001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sociability</td>
<td>49.2 48.1 0.79 n.s.</td>
<td>47.1 49.9 3.35 .001</td>
<td>49.1</td>
<td>.01</td>
<td>49.0 0.12 n.s.</td>
<td>49.4 3.14 .01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Social Presence</td>
<td>52.3 55.4 2.09 .05</td>
<td>48.2 54.5 6.91 .001</td>
<td>51.6</td>
<td>56.8</td>
<td>4.91 .001</td>
<td>49.9 3.14 .01</td>
<td></td>
<td></td>
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<td>5. Self Acceptance</td>
<td>56.8 58.8 1.51 n.s.</td>
<td>54.1 58.2 4.94 .001</td>
<td>56.4</td>
<td>59.4</td>
<td>3.14 .01</td>
<td>54.9 3.14 .01</td>
<td></td>
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<tr>
<td>6. Sense of Well-being</td>
<td>41.9 37.3 2.99 .05</td>
<td>43.6 40.6 2.99 .01</td>
<td>42.4</td>
<td>3.8</td>
<td>3.84 .001</td>
<td>43.2 3.14 .01</td>
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<td>7. Responsibility</td>
<td>48.6 42.4 5.54 .001</td>
<td>51.4 46.6 6.65 .001</td>
<td>49.5</td>
<td>42.2</td>
<td>9.05 .001</td>
<td>49.6 3.14 .01</td>
<td></td>
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<tr>
<td>8. Socialization</td>
<td>51.0 39.6 8.46 .001</td>
<td>54.1 48.1 6.81 .001</td>
<td>52.1</td>
<td>41.2</td>
<td>11.29 .001</td>
<td>55.9 3.14 .01</td>
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<tr>
<td>9. Self Control</td>
<td>43.2 39.9 2.53 .05</td>
<td>46.5 41.3 6.37 .001</td>
<td>43.9</td>
<td>38.9</td>
<td>5.28 .001</td>
<td>42.1 3.14 .01</td>
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<td>10. Tolerance</td>
<td>46.5 45.2 1.04 n.s.</td>
<td>47.9 45.7 2.70 .01</td>
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<td>11. Good Impression</td>
<td>42.9 42.5 0.36 n.s.</td>
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<td>41.7</td>
<td>1.64 n.s.</td>
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<td>12. Communality</td>
<td>49.1 42.2 5.18 .001</td>
<td>49.9 47.9 2.27 .05</td>
<td>49.6</td>
<td>45.7</td>
<td>6.02 .001</td>
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<td>13. Achievement via</td>
<td>46.3 38.9 5.90 .001</td>
<td>48.6 44.3 5.35 .001</td>
<td>46.9</td>
<td>40.1</td>
<td>7.51 .001</td>
<td>49.6 3.14 .01</td>
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<td>Conformity</td>
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<td>Liquor</td>
<td>Marijuana</td>
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<td>CPI</td>
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<td>p</td>
<td>Never Used</td>
<td>Any Use</td>
<td>t</td>
<td>p</td>
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<tr>
<td>14. Achievement via Independence</td>
<td>54.7</td>
<td>55.2</td>
<td>0.44 n.s.</td>
<td>54.8</td>
<td>54.8</td>
<td>0.07 n.s.</td>
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<td>15. Intellectual Efficiency</td>
<td>48.4</td>
<td>45.3</td>
<td>2.30 .05</td>
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<td>47.7</td>
<td>1.59 n.s.</td>
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<td>46.0</td>
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<td>16. Psychological-mindedness</td>
<td>53.2</td>
<td>54.8</td>
<td>1.28 n.s.</td>
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<td>53.1</td>
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<td>17. Flexibility</td>
<td>54.7</td>
<td>61.7</td>
<td>4.95 .001</td>
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<td>56.4</td>
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<td>18. Femininity</td>
<td>55.3</td>
<td>56.7</td>
<td>1.09 n.s.</td>
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<td>55.0</td>
<td>1.67 n.s.</td>
<td>55.4</td>
<td>55.5</td>
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AVL

<table>
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<td>19. Theoretical</td>
<td>44.3</td>
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<td>20. Economic</td>
<td>38.6</td>
<td>34.4</td>
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<td>21. Aesthetic</td>
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<td>38.3</td>
<td>39.6</td>
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<td>24. Religious</td>
<td>35.6</td>
<td>33.6</td>
<td>1.60 n.s.</td>
</tr>
</tbody>
</table>

1 CPI means were computed from standard scores not raw scores.

2 n.s. - not significant.
Getting High in High School: The Meaning of Adolescent Drug Use

Joel W. Goldstein
Carnegie-Mellon University

Biographical Sketch of Author

Joel W. Goldstein is Assistant Professor of Psychology at Carnegie-Mellon University. He is a social psychologist with the Ph.D. from the University of Kansas. This paper is based upon his continuing research project on the use of psychoactive drugs by students.
Characteristics of Drug Users.

Psychoactive drug use is not an isolated aspect of a user's life. It is a behavior pattern closely related to his sociological and psychological characteristics. The particular configuration differs somewhat from drug to drug, but it is possible to discover variables which differentiate users from nonusers. In our study of all students on our campus we paid particular attention to the freshman class: we asked them to fill out anonymous and elaborate background and drug usage questionnaires and personality and values scales during freshman orientation. This was during one of their first days on the campus. Almost the entire class responded so that we obtained, in effect, data on the high school drug experiences (including those with the most widely abused drugs, alcohol and tobacco) of an entire class at an heterogeneous university. In comparing our results with those of other systematic high school and college studies, we have been impressed (as have other investigators) with the congruence of the findings: characteristics of users seem to fit remarkably consistent patterns.

For example, if we compare users with non-users of marijuana, the following pattern emerges: users are more likely to be from urban or suburban communities, to have better educated parents, to have a higher family income, to have come from a Jewish background or one with little or no emphasis on formal religion rather than from a Catholic background, to be more liberal politically, to prefer the humanities or fine arts to other academic fields, to believe that marijuana is not physiologically
addictive and that it does not lead to use of LSD or heroin or criminal activity, to feel that the marijuana laws are too harsh, and to estimate higher numbers of others who have used marijuana, than nonusers. No clear-cut relationships were found between marijuana use and sex of the person, grades earned in school, and frequency of participation in extra-curricular activities either on or off the campus.

Usage Patterns, Social Relationships and Attitudes.

Most marijuana users intended to use marijuana again but not LSD or heroin. Typically, they were introduced to the drug by a close friend of the same sex and usually had used it with one or two others present. Usually marijuana was the 4th or 5th psychoactive substance used in the respondent's life of the 17 drugs we inquired about. A sizeable minority of the user's friends also have tried it (among the freshmen, 23% for the tasters and 42% for other marijuana-only users), but a sizeable minority also disapproves (or at least did in 1968): half of the tasters' friends and a quarter of the marijuana-only users' friends. The most frequently mentioned reasons for using marijuana were: "to get high, feel good," "curiosity" (especially for first time use), and "to explore inner self." Most students found the drug had a beneficial and not harmful effect or reported that it had no particular effects, either good or bad. Those students who had decreased or stopped marijuana usage indicated that they had done this because they did not desire to continue experiencing its effects (among tasters), or because of illegality; for tasters a negative personal experience with the drug was also a reason mentioned by a significant minority.
Time of Starting.

Among the freshmen, when asked in September 1968, 7% had tried beer during their elementary school years, 4% had tried hard liquor, 12-1/2% had tried tobacco, but none had tried marijuana or LSD that early. During their high school years or immediately after but before college, an additional 63% had tried beer, 64% more had tried hard liquor, 44% more had tried tobacco, marijuana had been experienced by 17% and LSD by only slightly more than 2%. When we asked upper-classmen and graduate students when they had started using various drugs, we found that those with more than one marijuana experience and no other illegal drug use had started their marijuana use as follows: elementary school 0%, high school or afterwards but before college 5%, freshman year 24%, sophomore year 26%, junior year 24%, senior year 6%, after college and/or in graduate school 11%. Users of stimulants, narcotics, hallucinogens, barbiturates, or tranquilizers who had used at least one of these drugs at least 10 times (and many of whom had also used marijuana, usually before using these drugs) started as follows: no reply 31%, during elementary school 0%, high school or immediately afterwards 19%, freshman year 19%, sophomore year 13%, junior year 7%, senior year 5%, and after college and/or in graduate school 5%.

Personality and the Causes of Drug Use: Data and Interpretation.

Marijuana, amphetamine, and alcohol users were compared to their respective nonusers on the 18 scales of the California Psychological Inventory and on the six scales of the Allport-Vernon-Lindzey Study of
Values. Again, the results are very much in accord with those of other investigators. Users score in the direction of greater poise but lower sense of well being, are more non-conforming, more critical, more impulsive, more self-centered, less oriented toward achievement by conformity, more insecure, more pessimistic about their occupational futures, more disorganized under stress, more flexible in thinking, more rebellious toward rules and conventions, more inclined toward aesthetic and social values and less toward economic, political, and religious values on the Allport-Vernon-Lindzey, than are nonusers. There was no significant difference on the theoretical scale. It is interesting that the single difference between users and nonusers which did not appear in the same direction for these three substances when compared on these 24 scales was a reversal on the political value scale for alcohol users: they are more concerned with power issues, while marijuana and amphetamine users were less concerned than were nonusers of these drugs.

Immediately a caveat is in order: as drug usage becomes more widespread (the freshmen class went from 18% with any marijuana experience during the first days on campus to 28% the spring of their first year at college, to about 45% during the fall of their junior year) the identification of user characteristics becomes increasingly less revealing. Personality and other usage explanations focusing on the individual decrease in importance and an analysis of a general widespread behavior becomes ever more appropriate to explain usage distributions. When almost everyone becomes a "user," it becomes less productive to speak of the special character of the user. We would expect to continue to find that particular extreme types could be defined, however.
The causation of usage can include variables at many levels of analysis. Some with some empirical support include, in addition to those mentioned already, a history of greater medication as a child than abstainers—perhaps inducing a "pharmacological optimism," political disagreement with one's parents, and general dissatisfaction with and lower school morale. Others with little or no data gathered as yet, but which seem worthy of research, include media advertising for psychoactive drugs, school structure and procedures, and stress. The data on hand suggest to me the following as the briefest adequate representation of usage: one has a desire to change the way he feels. He believes that drugs can bring about such changes. He is relatively free from restraints against using drugs to do this. Finally, a usage opportunity occurs (or is sought). Note that desiring to alter the way one feels is in no sense an inherently pathological desire. We all have such desires and often do use psychoactive drugs as one means of accomplishing this; adults typically use the xanthines (coffee, tea, cola, cocoa), alcohol, tobacco, tranquilizers, barbiturates, or the amphetamines.

It is possible to argue at great length whether this "desire to change" motivation is "positive" or "negative," whether it is primarily a desire to move "toward" or "away" from some new mood or state. It should be obvious that these motives vary from person to person and from time to time within the same person. The personality data from drug-using young people indicates that they have some characteristics which might be labeled "negative" such as insecurity, pessimism, cynicism, and alienation from societal standards. It is necessary, however, to ask whether it is the individual or the setting in which he find himself
which most bears changing. This is as much (or more) a moral-ethical issue as it is a scientific or medical one. In some cases the message is clear; a person is saying literally, "I do not like the way I am and I want to change myself;" at other times a person is saying, "I do not like the situation in which I find myself and I want to change myself."

The desire to change may not stem from any especially noxious state of oneself or of one's situation - in fact, it may rarely stem from such strong motives, since the vast majority of drug users are able to function quite well in society. It may stem simply from a desire to feel better than when in the non-drug state. We must be alert to prejudices against people feeling better by means of drugs; note that the issue is confused, not clarified, when certain drugs are made illegal while others are approved for this purpose without medical or pharmacological consistency.

Drug Use, Adolescence, and the School.

Immediately there will be concern for the effects of psychoactive drug usage among the young, especially those in adolescence. Concern is justified, for data on the role of such usage in the lives of adolescents is rare. Some young people, and increasingly more of them, do cause themselves serious damage with some psychoactive drugs. In such cases, of course, medical treatment and even hospitalization may be necessary. In other cases where the use is not merely recreational, but is a means of withdrawing from the world or of obtaining acceptance from peers, it should be just as clear that the drug itself is not the primary problem.
Each individual case must be examined on its own merits. Counseling, a changed curriculum, family therapy, or other intervention may achieve what the person wants and needs.

This paper focuses on the high school student. He is experiencing the historically recent, yet important, and confused stage of adolescence. A primary difficulty is establishing a position in relation to the rest of society while in this ambiguous state which is neither full childhood nor full adulthood. A self-concept which is positive with a coherent identity is difficult to formulate and retain if one does not have a clear idea of who one is, or if one feels oneself to be a failure. Charles Silberman's Crisis in the Classroom is only the latest in a series of studies to document the nonproductive and psychologically destructive nature of much of our educational system today. The explicit message of the high school is often, "You are mature, responsible, and an adult." The implicit message contained, however, in close supervision and tight rules and regulations is that the student is immature, irresponsible and not to be trusted.

While I realize that control of students is often a major difficulty, I feel that an important element of the problem - along with the lack of resources, over-loaded teachers, and other well-known woes of the educational machinery - is a lack of trust between student and teacher (and between parent and child). Trust is difficult to establish anywhere, because before it is offered the recipient must demonstrate trustworthiness, and this he cannot do until he is trusted. This vicious circle is best broken, I believe, by those with the status, prestige or power advantage in an asymmetrical relationship. Once established, a self-
fulfilling trust-building, rather than trust-destroying, cycle is started, and greater maturity is induced: the student can say, "They trust me; I am a trustworthy person - unless I destroy their trust." Many educational rules prevent the student from learning the consequences of his own behavior; learning mature control over one's behavior under such circumstances is difficult.

Many of the popularly used drugs have the effect of reducing anxiety - recognizing that the effect is usually an interaction of the drug's physiological effects, the usage setting and the user's personality and mood. Thus usage can be self-reinforcing: usage makes one feel better so that when another anxiety-inducing situation occurs, the person's probability of using a drug to alleviate it is greater. I would like to see if learning could be enhanced and anxiety reduced simultaneously by non-competitive instructional systems. Research on teenage runaways suggests that having a success experience at either home, school, or among one's peers (or at an after school job) is sufficient to hold a person at home. If none of these are present, then no anchor to home exists, and the probability of running away is greatly increased. Do not track systems inherently define certain students as "failures"? Why cannot every student compete against his own learning standards rather than against his peers so that student cooperation is fostered rather than inhibited? This would improve the learning environment so that every student might be able to define some success experiences of his own at school. The adolescent drug user, too, may not be obtaining meaningful success experiences from school.
The identity issue seems to me to be with us more than ever. Students have increasing difficulty understanding the nature of their parents' occupations or, indeed, of almost the entire world of real work in the society, because they are kept from it by school attendance and child labor laws. Furthermore, it is increasingly difficult for young people socialized in a world radically different from the one in which their elders were socialized to follow the traditional career models of that elder generation. Given the many failures of the present educational system, these issues are certainly worthy of increased research. Our job as educators is to help people fulfill their potentials - as they see them.

Drug Use as a Problem.

A final note on drugs: when a person is obviously disturbed and unhappy and uses drugs, it seldom is the case that the drug itself is his problem. For example, Jessar and his colleagues have found that frequency of alcohol use and drunkenness was associated with frustration, dissatisfaction and powerlessness in a sample of Boston adolescents of Italian origin but not in adolescents in southern Italy. They conclude that, for their American but not their Italian youth, heavy drinking is seen as an appropriate way to respond to personal frustration - especially that resulting from a failure to achieve one's goals. Cultures differ in the meanings that they give to drinking patterns. Thus it is the manner and local definition of use and not the mere fact of use which is significant in efforts to understand the reasons why an individual uses a particular drug.
How can we prevent drug use from becoming destructive to the individual? In addition to specialized help from the school, I suggest that students should be encouraged to be their own clinical diagnostician; to be their own first line of defense. The student should periodically ask himself, "What is the meaning of my drug usage; what role does it play in my life?" If one finds the question strongly unpleasant, then that in itself should be a sign that some concern is warranted. One should also monitor his own drug using behavior, paying particular attention to actual or desired changes in substance used, amount used, and/or circumstances of use. While we all engage in rationalization, we also all have continuous and meaningful insights into our own behavior and inclinations. We all can benefit from periodic personal assessment: the student, the parent, the drug user, the drug researcher, and the educator.
Footnotes

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