COLLEGE STUDENT MISPERCEPTIONS OF ALCOHOL AND OTHER DRUG NORMS AMONG PEERS: EXPLORING CAUSES, CONSEQUENCES, AND IMPLICATIONS FOR PREVENTION PROGRAMS*

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Introduction

The abuse of alcohol and other drugs among college students remains a prominent concern on most campuses. Problems commonly associated with such abuse include property damage, poor academic performance, damaged relationships, unprotected sexual activity, physical injuries, date rape, and suicide (Berkowitz & Perkins, 1986a; Perkins, 1992; Presley, Meilman, & Lyerla, 1993; Wechsler & Isaac, 1992; Wechsler, et al., 1994). While some students begin using alcohol and other drugs after enrolling in college, research suggests that other students actually begin much earlier and simply continue to develop problem behavior during the college years.

Institutions have responded to problems of substance abuse by developing counseling and health education programs and by imposing strict administration policies. Yet there is little evidence that such measures reduce consumption among youth in general (Braucht & Braucht, 1984; Hanson, 1982; Kinder, Pape, & Walfish, 1980; Moskowitz, 1989) or among college students specifically (Kraft, 1988; Moskowitz, 1989; Oblander, 1984). Simply educating youths about the variety of abused drugs, their effects, and the associated health risks may produce more sophisticated (i.e., knowledgeable) users but has shown no significant benefit in changing behavior (Tobler, 1986). Where education programs have changed attitudes, those changes have been pro-drug as well as anti-drug, leading Pickens (1985) to conclude that "the effects of drug information on behaviour are best regarded as unpredictable" (p. 40).

Legal responses such as raising the minimum drinking age have helped somewhat in reducing highway accidents and adolescent use in general, but such responses have done little to reduce consumption and abuse in the college setting (Engs & Hanson, 1988; Perkins & Berkowitz, 1989; Williams, Kirkman-Liff & Szivek, 1990). Furthermore, some drug prevention programs remain relatively ineffective because they do not include a comprehensive approach to prevention at primary, secondary, and tertiary levels of campus concern (Berkowitz & Perkins, 1987; Dean, 1982; Kinney & Peltier, 1986; Kraft, 1979).

Various theories have been advanced to explain the persistence of drug abuse among college students. Some psychological studies, for example, have focused on youthful rebellion or problem-prone personalities; others

have examined cognitive expectations associated with intoxication. Sociologists have typically focused on the effect of peer socialization in settings void of mature role models, examining the way students internalize problematic behavioral norms.

Most empirical research in social science, however, has attempted to isolate personality and environmental variables that predict drug use without providing a clear theoretical framework. Such research also fails, for the most part, to offer practical means by which institutions can combat problems of abuse.

It is therefore clear that new and more effective strategies must be developed, strategies based on coherent theories supported by research. The most useful theories are likely to have two important characteristics. First, they must simultaneously consider both psychological concerns about cognitive functioning and sociological concerns about peer group and institutional effects. Second, they must be translatable into practical programmatic initiatives that can be applied at primary, secondary, and tertiary levels of intervention.

This paper applies attribution theory and peer socialization theory to the problems of substance abuse. More specifically, it applies these theories to an analysis of peer group influence and to misperceptions of peer norms among college students. Such misperceptions, which have a negative impact on alcohol and other drug abuse, are then examined in order to develop institutional tactics to counteract problems of substance abuse. Focusing on student misperceptions from a theoretical perspective that is both psychological and sociological, this study aims to address limitations we face in trying to solve alcohol and other drug problems on campuses solely through drug information approaches and legal restrictions. Certainly there is value in educating students about the problems and dangers of addiction and in using legal means that may limit abuse. But, given the slim evidence that such approaches are effective, we need to examine other potential solutions. Looking at student misperceptions may be a particularly important strategy to address some of the problems.

Peer influence

Classic theories and research in social psychology have long argued that several factors conspire to move individuals to perceive their world as the group does, to adopt peer group attitudes, and to act in accordance with peers expectations and behaviors. Such factors include friendship affiliation needs and social comparison processes (Festinger, 1954), pressures toward peer group conformity (Asch, 1951, 1952), and the formation and acquisition of reference group norms (Newcomb, 1943; Newcomb & Wilson, 1966; Sherif, 1936, 1972). Young people are especially prone to adopt peer attitudes and behaviors, even on a college campus where faculty, administrators, and the curriculum encourage individuality. Certainly the use of alcohol and other

drugs in adolescence seems to be influenced largely by peers, a claim supported by Kandel's (1980) review of research and by more recent studies (Marcos, Bahr, & Johnson, 1986; Orcutt, 1991). While the relative influence of peers and parents on adolescents varies considerably in other areas, peer influence is notably most pronounced with regard to illicit drug use (Kandel, 1985). Even in early adolescence, parents' attitudes and behaviors have less impact than those of peers and older siblings (Needle, et. al., 1986). Furthermore, the predominant influence of current peers extends into young adulthood, affecting individual drug use across the range of "soft" and "hard" drugs (Clayton & Lacy, 1982).

Peers may be of signal importance in college, where socialization is typically "peer intensive," especially at undergraduate and residential colleges. There students lack frequent contact with parents, siblings, and other reference groups and institutions (e.g., religious communities, occupational structures); therefore, peers become crucial in defining attitudes and behaviors. Research on college students indeed demonstrates that their use of alcohol and other drugs is associated much more closely with peer use than with family or religious influences (Perkins, 1985).

Of course, not all students residing on campus or even living in the same residence hall think and behave identically regarding drug use. Besides the residual influences of family, religion, and social background, students interact with various student peer groups that can vary in composition and lifestyle. Peer influence, moreover, is not necessarily negative. Peer pressure may encourage or discourage drug abuse depending on one's "peer cluster" associations (Oetting & Beauvais, 1986) or on one's reference group orientation. Furthermore, students may differ in their susceptibility to peer pressure depending on their psychological differences in inner- versus other-directedness. Some students are simply more socially integrated than others, thereby producing differences in the intensity of peer interaction. Nonetheless, the basic assumption of this socialization model is that one tends to think and act as one's peers do, especially when contact with them is close and frequent. In such situations, peers set standards of acceptable and valuable behavior. Thus, even if the larger society considers heavy alcohol and other drug use deviant, youths may learn and continue such behavior if the peer group provides models for it, rewards it, and defines it as desirable (Akers, Krohn, Lanza-Kaduce & Radosevich, 1979).

If asked directly, students may not always indicate that they experience peer pressure, even if they conform rather closely to peer expectations. Furthermore, some expressions of felt pressure may not correlate highly with behaviors, but this lack of correlation may reflect problems with the subjective means used to measure the pressure. Subjective assessments of peer pressure may be misleading because we build into our notion of such pressure a negative orientation toward the activity studied along with a component of exposure. If we simply ask students how much "pressure" they feel to use alcohol and other drugs, part of that felt pressure may reflect how much they are

exposed to the drugs. Another part of the pressure may reflect how positively or negatively they feel about the particular drug use. That is, to describe oneself as feeling pressured may imply a negative orientation toward the activities in question. Thus students who react negatively to other students' drug use may feel pressured even though they are not necessarily close to peers who exhibit or encourage drug-related behavior. On the other hand, students who are heavily exposed to peer drug use are not as likely to object to this use even though it produces more encouragement to participate. So one may have little exposure but, feeling negative about it, experience considerable pressure. Alternatively, one may have much exposure and, feeling positive about it, sense little pressure. In research on undergraduates at a state university, Orcutt (1991) found that students who were generally light drinkers did not increase their drinking in the presence of close friends, whereas students disposed to drink heavily did so. The latter type of students may have been more vulnerable to peers but, failing to recognize the influence negatively as pressure, may have viewed the presence of peers as encouragement to act on their preferences. Thus, peer pressure as subjectively experienced may simultaneously reflect degrees of competing social and psychological forces (exposure to and negative evaluation of drinking or other drug use).

Given the problems with subjective assessment of peer pressure, some researchers have used measures of peer attitudes and behaviors that avoid implicit evaluation of the activity, thus providing a more accurate assessment of exposure to differing reference groups. In many instances, researchers ask students to indicate their immediate peers' level of alcohol and other drug activity and then use the reported information to indicate how much exposure and pressure a student faces. These are perceptual assessments of one's peers, of course, and may not accurately reflect the student's actual peer environment. Students may misperceive or misremember which drugs are readily available or how much their friends are actually using drugs. Some studies simply ignore this distinction. Others using this method, while clearly acknowledging that such measures are perceptions, nonetheless accept them straightforwardly as accurate indicators of the peer environment.

In contrast, still other studies use measures that evaluate students' peer environments more objectively. For example, one's friends can be contacted and interviewed or surveyed directly about their attitudes and behavior in order to construct an indicator of peer influence. Ecological context measures (e.g., exposure to differing housing or social environments with varying consumption levels or use patterns that are known) provide another objective approach for comparing students and assessing the effects of various peer groups.

Yet it is also possible to question the use of objective contextual variables to measure the student's peer environment. While such measures may provide a better assessment of actual peer norms, this objective "picture" of the student's world may not be what the student actually sees. Thus, it may be

equally or even more important to consider the picture of peer influence through the eyes of the perceiver. That is, what students see happening among their friends may be more important than the actual peer norms. Certainly whatever one's peers think and do is likely to correspond to some extent with one's impressions of those peers, but this correspondence may be only partial (Nisbett & Kunda, 1985). Here a classic sociological dictum is particularly relevant. If people perceive situations as real, those situations are real in their consequences (Thomas & Thomas, 1928). Subjective percep- tions, be they accurate or inaccurate, must be taken as important in their own right since people act on their perceptions in addition to acting within a real world.

Which is crucial for the individual student, the actual norms of peers or the student's perception of those norms? Both are presumably relevant, but rarely are both considered in research or in education and prevention pro- grams. Figure 1 illustrates a basic model of peer influence on drug use. The impact of actual peer norms may come from two routes. First, actual norms may influence students directly (path A). Drinking environments, for exam- ple, are an important consideration in this regard. If almost all students in a particular setting are drinking heavily, then a student entering that setting is likely to be handed a drink without requesting it and to feel compelled to accept because everybody else is drinking. In this case, then, the actual peer norm directly affects behavior as the individual responds to it.

Likewise the actual peer norm may indirectly influence personal use. What peers actually do will presumably have some impact on the student's perception of the norm (path B). This perception can, in turn, affect the stu- dent's personal use in multiple ways. No matter what the student's own atti- tude about use might be, he or she may adjust personal behavior in light of
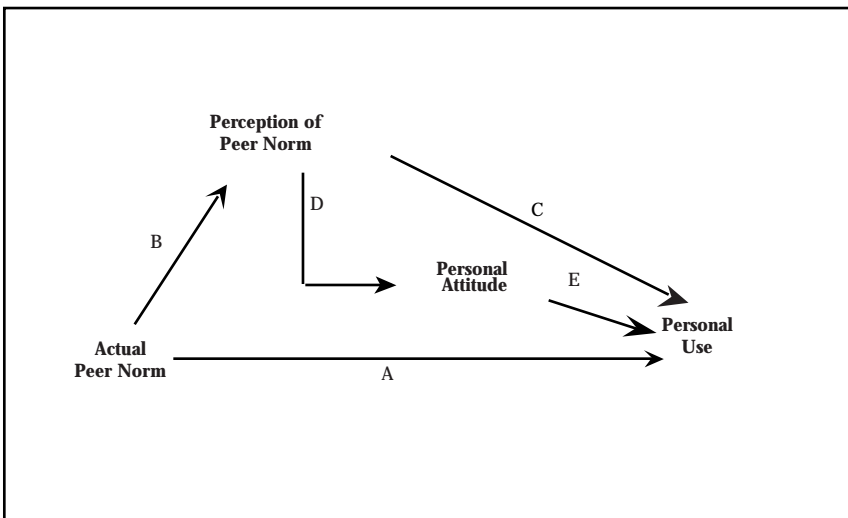

Figure 1. Simple peer influence model of personal drug use

the perceived standard in order to feel more comfortable socially (path C). Of course the student's perception of peer attitudes will likely influence his or her own attitude (path D), and the student's personal attitude will direct-ly affect his or her drug use (path E). Thus, if a student perceives peers as per-missive, this perception may encourage a relatively permissive personal atti-tude and more extensive consumption. Furthermore, the student with a moderate or restrictive attitude toward a particular drug, when placed in a situa-tion where she or he believes friends are more permissive, may be inclined to use in excess just to "fit in" on that particular occasion, regardless of personal beliefs.

Figure 1 is not meant to suggest that personal use has no affect on one's attitudes and perceptions of others. Indeed, individuals may shape their atti-tudes to conform with their current behavior, thereby producing greater cog-nitive consistency. In addition, it can certainly be argued that one's actions will, at least in part, affect one's assessment of peer norms because of a cog-nitive tendency to see oneself as relatively normative. Likewise, an individual's behavior may tend to place him or her in situations with other people who exhibit similar behavior. Thus a more complete picture of the psychological dynamics of human behavior here would also include arrows from personal use toward personal attitudes and perceptions. The purpose of Figure 1 and of this theoretical discussion, however, is to consider actual and perceived peer influences on personal behaviors. Thus the "causal flow" discussed here is not intended as a complete model of all possible dynamics.

The model presented in Figure 1 can be modified, however, to provide a more complex explanation, one that incorporates a "contingent consistency" model (Rabow, Neuman, & Hernandez, 1987; Grube & Morgan, 1990). This type of model accounts not only for the independent effects of norms and personal attitudes on drug use, but also for the interaction of norms and atti-tudes. Several studies suggest that one's attitude influences one's behavior most saliently in the presence of supportive peer norms, although the research results have varied somewhat depending on the nature and extent of the behavior (Andrews & Kandel, 1979; Grube, Morgan & McGree, 1986; Liska, 1974). That is, while peer norms may influence personal use directly and indirectly by affecting one's attitude, such norms may further determine use by reinforcing an existing personal attitude. Thus someone who person-ally finds drug use acceptable and then simultaneously experiences a permis-sive peer norm may be far more encouraged to abuse drugs than if influ-enced by personal attitude or peer situation alone.

Here again, however, we must distinguish actual peer norms from per-ceived peer norms, both of which may exert interactive influences when con-sistent with personal attitudes. Thus Figure 2 expands the model in Figure 1 by incorporating the contingent consistency model for both actual and per-ceived peer norms. Path F represents the interaction between personal atti-tude and actual peer norm. Such an interaction might occur, for example, in the case of a student personally prone to use drugs but likely to do so only if the drug is actually made freely available by peers. Path G represents the

interaction between personal attitude and perceived peer norm. In this situation a student personally prone to use a drug might do so only if he or she perceives friends to be accepting of such behavior. The model in Figure 2 shows that actual peer norms, perceived peer norms, and personal attitude may contribute independently to a student's use of drugs. The model also
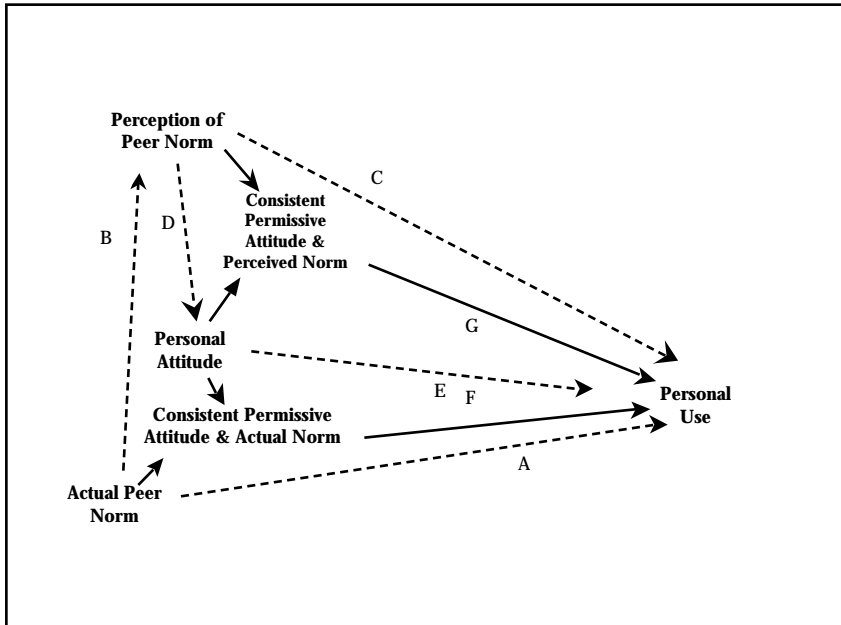

Figure 2. Contingent consistency peer influence model of personal drug use

shows, however, that even more encouragement may occur if permissive actual and perceived peer norms combine with a permissive personal orientation.

Misperceptions of peer norms

The models presented in Figures 1 and 2 show how the perceived peer norm can be an important determinant of personal use. Indeed, the strongest peer influence may occur indirectly through the individual's perception of peers, regardless of the accuracy of that perception. Yet research and programmatic efforts to address substance abuse on campus often fail to consider (1) variation in perceptions of drinking and other drug use norms among students, and (2) any contrast of these perceptions with actual attitudes and practices. Radically different perceptions of campus norms may exist in the same student body, and the typical student's perception of the norm may be at odds with the actual norm. If perceptions of the environment do vary and influence the individual (Jessor, 1981), then an empirical question is critically important: Do students' perceptions of their peers' attitudes and behaviors

tend to differ from the actual student drug norms on a campus? If so, is it possible that the strongest effect of peers may operate through the impression one has of them, an impression that may be significantly distorted for many students?

Perkins and Berkowitz (1986a) published the first research focusing specifically on misperceptions and their effects. Based on data collected in a 1979 alcohol survey of the entire undergraduate student body at a liberal arts college, this study shows that while a range of attitudes and drinking patterns existed, the actual norm could be clearly classified as relatively moderate. Yet students perceived their peers' consumption of alcohol as much more extreme than it actually was. As part of the survey, students were given a range of five possible responses to indicate their attitudes toward alcohol use. These choices were (1) drinking as never good or (2) drinking as acceptable with no intoxication (the relatively conservative options), (3) drinking as accept-able with occasional intoxication as long as it did not interfere with any aca-demic or other responsibilities (the relatively moderate position), and (4) occasional or (5) frequent intoxication as acceptable even if it interfered with other responsibilities (the relatively liberal options). About 14% placed themselves in the conservative camp, about 66% in the moderate camp, and about 19% in the most liberal camp (1% did not respond to the question). Thus, the vast majority of responses—and hence the norm for personal atti-tudes—was shown to be moderate. Asked to give their impression of the gen-eral campus norm in the same survey, however, students painted a very dif-ferent picture. Using identical response categories, virtually no one per-ceived the general norm to be conservative, only about one-third perceived it as moderate (the actual norm), and almost two thirds (63%) saw their peers on campus as having a liberal attitude toward drinking.

Thus while most students' personal attitudes were moderate, they per-ceived other students' attitudes toward alcohol as much more permissive. In this initial study, over three-quarters of students believed that one should never drink to intoxication or that intoxication was acceptable only in limit-ed circumstances. Yet almost two-thirds thought their peers believed that fre-quent intoxication or intoxication that did interfere with academics and other responsibilities was acceptable.

This gross misperception of peer attitudes was not simply the result of a particular historical situation momentarily distorting students' perceptions (e.g., a tragic incident or a large campus party involving alcohol). Subsequent surveys at the same campus over several years consistently uncov-ered misperceptions of similar magnitude (Berkowitz & Perkins, 1986b; Perkins, 1994). Moreover, these findings were based on highly representative samples or surveys of the entire population, with response rates as high as 90% in one case. Thus sampling biases cannot explain the discrepancy between the actual norm and the common perception of the norm.

Misperceptions about substance use on this campus have not been limit-ed to attitudes toward alcohol. Subsequent surveys reveal similar discrepan-cies between the way students perceive marijuana, cocaine, and hallucino-

gens and the way they imagine their peers to perceive these drugs. That is, although personal support for the use of a drug varies considerably depending on the drug (e.g., marijuana is more widely acceptable than cocaine), a similar gap exists in all comparisons between the actual norm and the typical perception of the norm for each drug. Figure 3 shows this relative pattern of actual and perceived norms for each substance.

The tendency to misperceive peer norms for drug use did not go entirely unnoticed among researchers studying earlier generations of college students and other types of institutions. While demonstrating misperceptions was not the primary focus in any instance, a few studies prior to the 1980s did uncover discrepancies between actual and perceived norms. Imperi, Kleber, and Davie (1968), for example, noted such discrepancies in reviewing undergraduate survey results from a previous generation of students at two private East Coast universities. Data showed that students' perceived estimates of hallucinogenic drug use were double or triple actual levels. In another late

Most Permissive
(Frequent use acceptable under any circumstance)

-- PERCEIVED Alcohol --

-- PERCEIVED Marijuana --

--ACTUAL Alcohol --

-- PERCEIVED Cocaine--

--ACTUAL Marijuana--

-- PERCEIVED Hallucinogens--

-- ACTUAL Cocaine--

-- ACTUAL Hallucinogens--
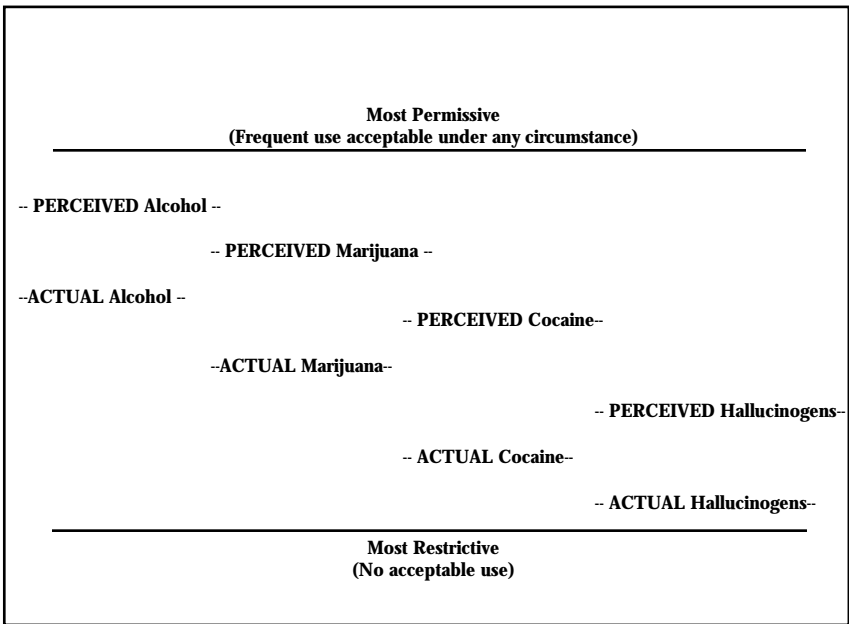
Most Restrictive
(No acceptable use)

Figure 3. Actual and perceived norms for use of different drugs among undergraduates on a college campus

1960s survey conducted at a moderately large West Coast university (Suchman, 1968), four out of five students reported not using drugs (other than alcohol), while only one out of three thought nonuse was the norm and two out of five believed that most students were at least occasional users. Bowker (1974), while concentrating on significant correlations between perceived peer norms and personal drug use at a small liberal arts college, also noted that drug users overestimated the extent of peer drug use. Although

Banks and Smith's (1980) survey of student alcohol use at a private college in western New York relied on a relatively small sample drawn from a psychology class, it is still worth noting that they also found that students typically perceived their friends (presumably other students) to be drinking more heavily or at least as much as themselves and rarely less than themselves.

Several more recent studies have also noted student misperceptions of drug use or have focused directly on this phenomenon. A research note on drinking at a New England state university (Burrell, 1990), for example, reports that students perceive their friends as heavier drinkers than themselves. In analyses of students attending a large Western university (Baer & Carney, 1993; Baer, Stacy & Larimer, 1991), misperceptions of peer drinking norms were found to persist across gender and housing types. In survey investigations using multiple strategies, Prentice and Miller (1993) found misperceptions of peers' attitudinal norms about drinking among students at an Ivy League university.

Finally, data collected by several FIPSE-supported programs reveal a consistent gap between actual and perceived alcohol and other drug attitudes and behaviors. These findings—appearing in professional newsletters, local newspapers, unpublished reports, and personal communications to this author—come from various institutions, including large Southeastern, Midwestern and West Coast public universities as well as small private colleges in the Midwest and the Northwest, all employing the research model initially presented by Perkins and Berkowitz (1986a).

Attribution theory and misperceptions

One explanation of how these false normative perceptions are created and maintained can be found in attribution theory from social psychology. Attribution theory studies the cognitive mechanisms we use to assess the causes of human behavior as we order our perceived environments (Crittenden, 1983; Harvey & Weary, 1985; Hewstone, 1983; Kelley, 1973; Ross & Fletcher, 1985). Over time, we gather information by observing the behavior of ourselves and others in a variety of situations; we use this information to sort out and account for the causes of behavior. That is, we try to answer questions in an effort to bring order to our perception of the social environment (e.g., Is some behavior characteristic of people in general, only of certain individuals, or only of people in particular situations? Did someone act as they did because of personal orientation or because of a particular circumstance?). Thus, attribution theory focuses on how people need to and do construct causal explanations of events and behaviors. As intuitive (albeit crude) scientists, we are always observing ourselves and our environments, trying to understand why events and behaviors occur. We typically have only limited information about what we observe, but we nevertheless have to make judgments about our perceptual environment and try to order it in some way. As we observe things, we use cognitive testing mechanisms to decide whether

something can be accounted for by the particular environment, by the particular person, or by a combination of factors.

Attribution theory can help explain how people judge their own and other people's use of alcohol and other drugs. Most previous work applying attribution theory in this area considers the way people explain their own drug behavior (e.g., why they use, why they continue to use, and so forth). Some of the research focuses on alcohol expectancies (i.e., how people expect the drug to affect them). Other work considers the perceptions of alcoholics and other substance abusers about the locus of control (to what internal and external factors do people attribute the causes of their own consumption?). Finally, other research investigates the extent to which people will attribute responsibility for hypothetical incidents to a person who has been drinking. What I propose is that attribution theory can also be used to understand misperceptions of peers' alcohol and other drug use, a possibility not examined thus far in the scholarly or clinical literature.

Attribution research shows that we generally see other people's behavior as stemming from their personalities, not from their current situation or environment. That is, we tend to overattribute the behaviors of others to their dispositions. Jones and Nisbett (1971) argue that people are likely to consider different information when they are assessing themselves than when they are assessing another person. In evaluating our own behavior, we give primary attention to the situation we are in; in evaluating others, by contrast, we must necessarily focus more on the actor than on the environment. When observing someone else, I may examine the environment to some extent, but I naturally spend most of my time watching that person. In observing myself and my actions, on the other hand, I must necessarily look outward, focusing more on the environment than on myself. So the actor interpreting his or her own behavior tends to look more at the situation, while the person observing someone else is visually centered on that person and less aware of the social surroundings. Consequently, with relatively less information gathered about the environment, the observer ends up attributing more of another person's behavior to that person's disposition.

This perceptual dynamic can help explain how misperceptions about peer drug use arise. We may inherently see people's behavior regarding alcohol and other drugs as more closely linked to their dispositions than it actually is. Such a misperception would naturally tend to rise from our insufficient perceptual attention to surrounding circumstances. Thus, we are likely to downplay the impact of environment on people's behavior. In contrast, awareness of our own actions typically includes intimate knowledge of the context in which we operate (i.e., I know more about what is going on in my own life at any time than about what is relevant to anybody else).

With regard to alcohol use, for example, a person is likely to know much more about why he or she is drinking in a given circumstance than about the circumstances of someone else's alcohol consumption. A student may get drunk on a certain occasion (e.g., finishing final exams or breaking up with

an intimate friend). Regardless of whether such behavior is wise, the student can contextualize it as a limited occurrence consistent with his or her moderate attitude toward alcohol. Likewise, a person watching a close friend get drunk in a given circumstance can probably contextualize that behavior fairly well given his or her knowledge about the friend's life. That is, a student will likely know about how often, to what degree, and for what reasons a roommate or very close friend consumes and abuses alcohol, and in most such cases the abuse will be perceived, then, as limited.

Beyond their immediate friends, however, college students have limited information about other students' lives. Thus, they cannot contextualize drinking behavior very well. For example, if a student sees a fellow dormitory resident passed out in the hall, the observing student may be aware of, and therefore link the peer's inebriation to, a special annual party where drunkenness is common. Knowing less about this student than about close friends, however, the student observer is more likely to attribute the drunkenness to character or to a general pattern of behavior. Still, the student observer will probably see the peer in other contexts fairly often, which may moderate this unfavorable impression. When it comes to a virtually unknown peer, however, the student observer has little information with which to contextualize behavior. The observer, therefore, will tend to blame the peer's disposition and general attitude toward alcohol, not the social context, for the drunkenness.

Thus, although they have limited information about the actual behavior and motivation of most peers, students still must form a cognitive picture of their overall social environment. Attribution theory, suggesting how we cognitively order our environment using fragmentary information, can thus help explain how misperceptions evolve. If our knowledge of others is superficial, then we typically attribute their behavior to whatever we can, most commonly to the character of the individual being observed. For example, even if a student drinks more alcohol than she or he intended to, others may nonetheless see the excess drinking as intentional. The behaviors and attitudes of peers whom a student barely knows may then be generalized, turned into perceptions, misperceptions, even firm beliefs, about wider peer norms. Moreover, a student may even assume that the behavior of other students at, say, a drunken party indicates what they are truly like, since they are perceived as beyond the control of parents, employers, or school administrators. This apparent lack of external control may give a student the impression that peers are being themselves in this situation. Of course, this impression is an illusion; all social contexts, even the most seemingly uninhibited party, are socially constructed and thus controlled by normative expectations. In this case, however, the norms are the perceived expectations of other students.

As we move away from the self toward more distant social groups, we have less contextual information to explain the causes of behavior. Lacking such information, we base judgments increasingly on the perceived dispositions of people relatively unknown to us. Thus we might predict a student's perceptions of behavior to be more distorted the more those perceptions are based

on a relatively unknown group of students. This prediction has been empirically tested at the same college in the Northeast at which we initially discovered misperceived drug norms. In repeated surveys of the entire campus population, students were asked to indicate their perception of the alcohol norm among their closest friends and among other students in their particular living unit. As predicted, student perceptions of alcohol use were increasingly more distorted for peers they knew less well (see Figure 4). Respondents described their friends as somewhat more permissive than themselves, students in their living unit as more permissive than close friends, and students in general as most permissive. They did so even though the actual norm for these three groups (the aggregate or average of all responses) was moderate. Baer, Stacy, and Larimer (1991) found a similar pattern of increasing mis-
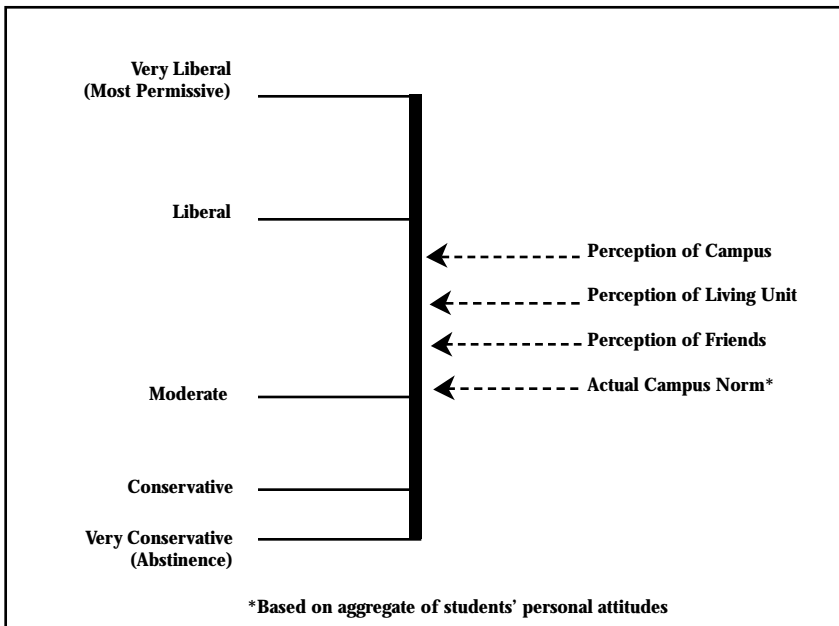
Figure 4. Actual and perceived norms of alcohol use among undergraduates on a residential college campus

perceptions with increased social distance among students at a large Western state university.

Public peer behavior and conversation

To understand more fully how misperceptions of peer norms develop on college campuses, we must look beyond attribution theory toward a broader analysis of public behavior and language. When a student observes a highly intoxicated or drugged peer, that observation is likely to make a vivid impres-

sion. The observing student may be amused, watching or interacting with the peer as a form of social entertainment. The peer may assume comedic roles, act out of character, or become uncharacteristically extroverted. Alternatively, the impression may be one of sadness or disgust as the observer sees an inebriated peer being exploited as a sexual object, vomiting in a residence hallway, or passed out in a public lounge. Or the impression may be frightening as a student tries to fend off the inappropriate sexual advances of an intoxicated peer or faces a belligerent (sometimes incoherent) student destroying property or picking a fight.

Whether the experience is entertaining, unpleasant, or shocking, the student is likely to remember it more vividly than other campus experiences, most of which do not involve alcohol or other drug use. The problem here is that a casual student observer is unlikely to take the systematic approach of a social scientist. The student will remember the unusual behavior and fail to give equal weight to typical behaviors in forming impressions of the norm. That is, the observer is unlikely to count the number of students at a party who are not intoxicated, which is probably a sizeable majority in most cases. Although many students will not use drugs during the course of an evening, the student observer is not a pollster sampling a representative group or an anthropologist systematically recording field notes. Thus, the student distorts the actual picture of drug-related behavior in a student body. This distorted image of heavy use may remain foremost in the student's memory and may be exacerbated by the student's own drug use. That is, the ability to assess accurately the extent of drinking or drug related activity may be compromised by the student's own intoxication.

Conversation can also distort perceptions of alcohol and other drug norms. Students may discuss their impressions of drug use at greater length and in more detail than they discuss ordinary activities of student life, even though these other activities may be statistically normative. A big party where many students drank, the behavior of intoxicated friends, or a fatal car crash involving intoxicated students often become popular subjects of discussion, adding to a sense of heavy use on campus.

Normative misperceptions about drug use are strengthened by the lack of conversation about alternative attitudes and behaviors. Students, for the most part, do not talk about having remained sober at a particular event. Even if they are not embarrassed to proclaim themselves abstainers, if asked, they do not introduce such comments into conversation, since doing so is highly unlikely to impress their peers. On the other hand, students may readily comment about how high or drunk they got the night before, often exaggerating the story or embellishing it with such expressions as "blasted," "wasted," "smashed," "ripped," "stoned," and so forth. Classic behaviorism and social learning theory help explain this circumstance. Individuals are positively rewarded by praise and attention when they recount and embellish their "adventures" while intoxicated. This pattern of conversation is thus reinforced and perpetuated. Students rarely sit down on the morning after a

party and announce casually that they stayed sober the night before, even if such behavior was the norm. Students simply lack access to language that might facilitate such conversation or allow them to discuss alternative behaviors to alcohol and other drug abuse; furthermore, peer rewards for this kind of talk are few or negative. Even abstaining students and those with moderate personal attitudes may inadvertently help maintain conversation about heavy use when they pay attention to and laugh about the reported escapades of their peers. The lack of discussion about alternative behaviors is ultimately internalized by most students—users and nonusers alike—and taken to indicate a lack of restraint among collegians in general.

With the accumulation of conversation over time, certain college social events get the reputation (often encouraged by the sponsors) that "everyone goes" and "everyone gets smashed." Thus a sensationalized view of the college community emerges. This powerful mythology has a life of its own and actually encourages more students to attend parties and get drunk than might otherwise do so. But here again the actual numbers attending such events and the percentage getting intoxicated, though certainly large enough to be a major concern, will typically not come close to justifying the common notions that "everyone" is at the event and that "everyone" is heavily intoxicated. Thus common conversation can contribute to misperceptions and, in turn, to problem behavior.

Consequences, pervasiveness, and persistence of misperceptions

On many campuses, students misperceive the norm for drug use, imagining it to be much more permissive than it actually is. Such a misperception can have negative consequences for individual students, encouraging them to drink or take drugs more than they otherwise would. This is not to deny that problems with permissive and abusive norms do, in fact, exist on most campuses. We should recognize, however, that such problems may be exacerbated by a misperception among students that peer norms are more permissive than they actually are. Many students may drink and take drugs in abusive ways based not so much on their own attitudes as on what they think the student environment encourages them to do.

We can reasonably assume that students' perceptions about the norms of their close friends' will influence their behavior more than will their perceptions of the general student norm. This might be reassuring, given the finding that students tend not to distort their friends' norms toward permissiveness as much as they do the general norm. Nevertheless, as previously noted, friends are still often seen as somewhat more liberal in attitude than they actually are. Therefore, while misperceptions of friends' norms may be relatively slight, those misperceptions can be powerful given the large influence friends have on behavior. In contrast, perception about peers in general may

have a relatively weak effect on behavior but, nevertheless, be very powerful since the distortion of perceptions is so much greater. Thus, the relative social distance of the individual from peers, when combined with the degree of misperception involved, makes each level of peer perception (close friends, students in a living unit, students in general) an important factor.

The phenomenon of students misperceiving peer norms is, then, a self-fulfilling prophecy in the classic sociological sense. As Merton (1957) describes it, "the self-fulfilling prophecy is, in the beginning, a false definition of the situation evoking a new behavior which makes the originally false conception come true. The specious validity of the self-fulfilling prophecy perpetuates a reign of error" (p. 423). So the kind of misperception discussed here fits Merton's definition—that is, the misperceived norm about drug use becomes a behavioral reality. Students' misperceptions prompt them to behave in ways they otherwise wouldn't; their excessive behavior then reinforces misperceptions about drug-use norms. That is, as misperceptions fuel problem behavior, the misperceptions themselves worsen because the behavior is often quite visible. And, as previously noted, these visible behaviors become the topic of public conversation in disproportionate ways. At the same time, misperceptions discourage moderate and conservative students from speaking out against abusive consumption, thus producing an even greater bias toward permissive use in conversation. What occurs, then, is not a simple, direct process of misperceptions producing undesirable behavior. Rather, the process is a complex, self-perpetuating one: misperceptions encourage excessive behavior, excessive behavior leads to more problems that are highly visible and widely discussed on campus, and these problems in turn lead to even greater misperceptions.

Thus misperceptions can have a compound effect. A student may be drinking heavily because he or she imagines the norm to be more permissive than it actually is. This student's heavy drinking, in turn, is misinterpreted by other students as reflecting the actual disposition of the student being observed. This misperception is then passed along and extended in the general process of misperception.

This expanded model of peer influence is illustrated in Figure 5. The model takes into account the individual student's misperceptions of peer norms as well as the misperceptions of other students in the peer environment. If most students are misperceiving each other, the resulting situation creates and perpetuates a misperceived norm, a norm that influences peer attitudes directly (path H) and influences peer use through, and regardless of, personal attitudes (paths I and J). The misperceived norm among peers, the actual peer attitudes, and the actual peer use then all contribute to further distort public conversation about student use (paths K, L, and M). Distorted conversation and the actual peer use observed by the individual spawn his or her misperception of the peer norm (paths N and B). This misperception, in turn, directly promotes increased personal use as the individual behaves in accordance with perceived expectations (path C). The mis-

perception, in conjunction with personal attitudes, also promotes use indirectly (paths D, E, and G), as discussed in the previously presented models of Figures 1 and 2. Finally, as also illustrated in Figures 1 and 2, the actual peer use has its own independent and interactive effect on personal use (paths A and F). More important, however, this actual peer use is already a product of inflated peer misperceptions of the norm (paths H, I, and J). Thus the individual's use of alcohol and other drugs is ultimately encouraged by both peers' misperceptions and personal misperceptions through the various interconnected and reinforcing processes portrayed in these causal pathways.

Of course, each person influenced by peers is simultaneously a peer to other students. Thus, a student's own misperceptions, attitudes, and personal use—affected by all these other factors—are simultaneously part of the peer environment and therefore subject to other students' misperceptions. Moreover, even if a student does not exhibit problematic behavior or hold a permissive attitude, that student still may contribute significantly to the overall problem simply by holding and communicating a misperception about peers. Our research shows that most students indeed misperceive the norm to be more permissive than it actually is, even if they personally abstain or participate very little in drug consumption. Thus, to use the analogy of a contagious disease, these students are carriers of the virus. That is, regardless of their own abstinence or restricted use, they can spread the misperception. By contributing to an erroneous conversation and acknowledging a false norm, they reaffirm other students' beliefs in that norm. They help maintain the
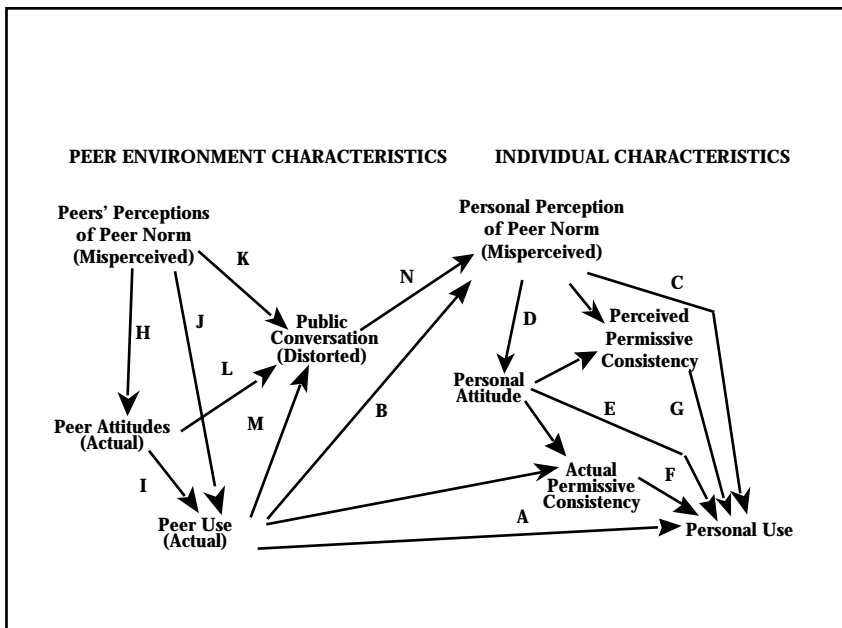

Figure 5. Expanded model of peer influence on personal drug use

false norm, even if they themselves do not fall victim to the misperception.

An environment of multiple drug use may further promote misperceptions in ways beyond those shown in the model thus far presented. In a community where various drugs are used, as on most campuses, the perceptions of peer permissiveness about one drug are not likely to remain distinct in students' minds from perceptions about other drugs. We know there is a correlation in most adolescent and student populations between types of drug use; that is, heavy alcohol users are more likely to use marijuana, and those users are more likely to use cocaine, and so forth. (Clayton & Ritter, 1985; Donovan & Jessor, 1985). And some of the greatest dangers of abuse come when students use more than one drug simultaneously. Since the actual use of various types of drugs overlaps somewhat, students' perceptions about different forms of drug use probably do not remain distinct. In this context of multiple drug use, misperceptions about the use of alcohol will most likely reinforce or accentuate misperceptions about the use of marijuana, cocaine, or hallucinogens, and vice versa.

Approaches to drug abuse prevention from the perspective of misperceptions

This widespread misperception of peer norms has important implications for addressing problems of student drug use. In order to achieve positive changes in behavior, for example, we may not have to rely solely on changing personal attitudes (an approach that has produced only limited effects on campus). If students become aware that actual peer norms are relatively moderate, they might well reduce their own consumption. The power of peers would then serve to restrain rather than to encourage drug use. Such an effect has been demonstrated in research among primary and secondary school students, who also misperceive drug norms (Hansen, 1993; Hansen & Graham, 1991; Marks, Graham & Hansen, 1992). These studies show that confronting misperceptions with actual norms works better than more traditional strategies. Research on college students at large and small schools in various regions suggests that perceived social norms significantly influence students' drinking behavior (Perkins & Berkowitz, 1986a; Perkins & Wechsler, 1996; Wood, Nagoshi, & Dennis, 1992). On one campus, a prevention program aimed at reducing misperceptions achieved notable reductions in binge drinking (DeAngelis, 1994; Haines, 1993; Haines & Spear, 1996).

Figure 6 identifies intervention points in the peer influence model previously discussed. The figure shows three points of intervention for traditional strategies and three for a proposed "perceptual correction strategy." Traditional approaches typically intervene with education programs designed to change actual attitudes. Or they develop policies to restrict public use on campus. In contrast, the proposed strategy attacks entirely different factors—
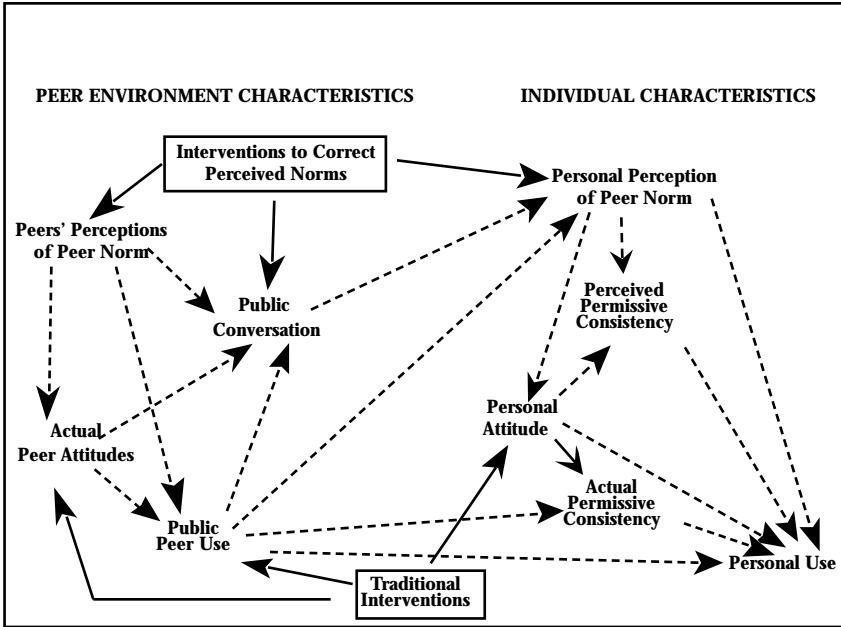
Figure 6. Intervention points in the peer influence model on personal drug use

norm perceptions and public conversation—seeing change in these factors as crucial for reductions in personal use.

To be most effective, this consciousness raising about the actual student norm should occur at primary, secondary, and tertiary intervention levels, and it should simultaneously address misperceptions about the use of all types of drugs. Furthermore, this "perceptual correction strategy" should not necessarily replace traditional strategies. It could be conducted independently or, perhaps ideally, in conjunction with other programs.

At the primary level, it is important to conduct surveys regularly enough to gather information about any student's cohort. Surveys should include questions about student perceptions of their peers as well as questions about their own attitudes toward and use of various drugs (Perkins & Berkowitz, 1986b). Health care personnel on campus can use the survey to assess student health and well-being.

Since students must review their own behavior as they complete the survey, the survey itself becomes a consciousness-raising device. More importantly, survey data—which are likely to reveal a moderate actual norm—can be used to reorient students' misperceptions of their peers, assuming, of course, that the data comes from a representative sample. Furthermore, the discussion of misperceptions sparked by such results can help counter typical public conversation, which distorts the student's image of peer norms. Survey results contrasting misperceptions with actual norms can be publicized in ori-

entation programs, student newspaper articles, radio programs, lectures, poster campaigns, and other forums. Such publicity should help correct students' false impressions about alcohol and other drug use. Disseminating information as widely as possible is especially important; as previously noted, all types of students may be "carriers" of the misperceptions even if they themselves do not use drugs.

At the secondary level of intervention, designated campus personnel can target the most problem prone groups for special attention (e.g., first-year students, fraternity or sorority members, adult children of alcoholics, athletes). Workshops can help these students confront their own misperceptions of peer use and can facilitate discussion about student norms from campuswide studies. Such workshops can also compare perceived norms and actual norms found within the particular group attending the workshop. An anonymous, informal survey of group members' perceptions is a good way to gather information for such a comparison. Group members can then discuss any misperceptions that come to light. Such an exercise can occur in special workshops or in residence hall floor meetings. Since the findings from these kinds of programs reveal peer expectations, students are more likely to respond to them than they would be to educational messages or judgments from authority figures.

Finally, at the tertiary level of intervention, a counselor can explore an individual student's misperceptions of peer norms, whether the student is voluntarily seeking help or is referred by administrative authorities. Discussion of perceptions and actual norms can also serve as a kind of reality testing and consciousness raising about the student's behavior in a peer context. Furthermore, clinicians might give special therapeutic attention to misperceptions for any substance abusers identified as highly peer oriented, conformist, or "other directed" (i.e., students who might be most vulnerable to perceived peer expectations). It is worth noting in this regard that existing research (Brown, Calsen, & Eicher, 1986) demonstrates elevated substance use among adolescents who hold strong dispositions toward peer conformity and who simultaneously perceive a high degree of peer pressure. Research on children of alcoholics shows them to be especially vulnerable to perceived peer pressure (be it positive or negative); this may reflect their need for a normative sense of expectations not previously available in the family environment (Perkins, 1993). Thus, clinicians working with adult children of alcoholics might give special attention to misperceptions of peer norms. The intervention strategies outlined above are designed to help students question their own perceptions of peers and to form more realistic assessments of peer norms. These strategies also aim to stimulate conversation that might counter somewhat the distorted public conversation about alcohol and other drug use. If these types of actions can help us, even slightly, to shift our perceptions and conversations, the ultimate effect should be a notable reduction in student use.

As noted in the earlier discussion of attribution theory, however, misperceptions stem partly from our natural tendency to overattribute other peo-

ple's behavior (e.g., drug use) to their dispositions or personal traits. Thus, it might follow that at least part of the process that creates misperceptions in the first place is out of the hands of those charged with carrying out campus intervention programs. Two comments are important on this point. First, if psychological bias does, indeed, cause us to overattribute behavior to people's dispositions, then intervention efforts focused on norms should be ongoing, designed to continually challenge students' assumptions about their peers.

Secondly, traditional attribution theory focuses strictly on perceptual processes in psychology; its explanations may not apply fully to the kind of attributions discussed here. When we decide that someone's behavior is individually or socially induced, a significant cultural component underlies that decision. That is, the amount of emphasis we place on the individual or the environmental context to explain behavior is learned. This sociological aspect of attribution cannot be ignored. Depending on how we are socialized, we will tend to look more toward the individual or toward the context to explain behavior. Thus educational experiences can be significant in determining how a perceiver will interpret the cause of events (Guimond, Begin, & Palmer, 1989). The point here is that we might also begin to resocialize students, teaching them to look more closely at the social contexts in which their peers use and talk about drugs. By teaching students to give a bit more attention to the cultural situation and not so much to the individual, we could perhaps help them see how behavior is shaped by the social forces of campus life. In this way, students may not so readily assume that the use or abuse of drugs simply reflects peer attitudes and the general norm.

Obstacles, dilemmas, and resolutions in addressing student misperceptions

The "perceptual correction strategy" described above has much potential as an alternative to traditional intervention strategies. This approach, however, is not without its own obstacles for administrators, health educators, and clinicians in higher education. What follows is a listing of some of the most important difficulties, along with possible tactics for resolving them. Although the potential obstacles are considerable, they are by no means insurmountable. Addressing them is crucial for any institution that wishes to develop an effective program for correcting student misperceptions of peer norms.

Staff Expertise
Health educators and clinical staff at most institutions are typically trained to deal with personal attitudes, personality structures, and individual behavior, and thus may be unprepared to conduct and interpret social research about normative perceptions. Here it might be useful to seek help from social scientists on campus who are willing to contribute their research and analytic skills.

Skepticism about Data

If they are highly committed to their own misperceptions, some students will be skeptical of results from campuswide polls about substance use norms. This may be true of both problem users and other students, who will explain discrepancies as the result of an odd sample, poor questions, poor participation, and so forth. Of course the most effective way to counter such criticism is to use the best methodology to get representative samples, honest and clear answers, and high participation rates for any survey. Again, enlisting the assistance of social scientists may be useful.

Another way to address doubting student groups is to have them test out perceptions and actual norms in their own experiments. If they take responsibility for and thus "own" the results, they may find it harder to discredit the findings. They can be encouraged to try an informal survey in classes or social settings, collecting anonymous data on personal and perceived attitudes, looking for discrepancies, and discussing results. Thus the doubters become part of the investigation process and have a greater involvement in discovering actual norms.

Naïve Administrative Reactions

One unexpected obstacle may be the reaction of administrators to an approach that uncovers misperceptions. Some school officials and health workers may react to findings of moderate use with disbelief: "It can't be true. I know we have a significant problem here. You can see the problem at any social event." Others may react in the opposite way, embracing the news uncritically: "I'm relieved to find out that our alcohol and drug problem here is not nearly as bad as people claim. I knew all along that things have been overstated and that the problem is really limited to a minority of our students." Both types of reactions are naïve, of course, in that they miss the fundamental point.

There is a substantial and fairly widespread problem on most campuses, especially with alcohol, but the perception of peer acceptability and use outpaces the reality. It is this misperception that actually makes the problem more of a reality for students than would otherwise be the case. The implications of this model must be communicated clearly to campus officials who deal with substance abuse.

Publicly Acknowledging True Norms

Another administrative issue is the acceptability of acknowledging true norms publicly. At nearly all campuses, most students do not use drugs other than alcohol with any regularity, and thus, the actual norm—nonuse—will not be problematic to acknowledge publicly. However, given the fact that official school policies frequently forbid any drinking on campus, administrators may find it difficult to publicize results that show any alcohol use or even an attitude of moderation as the norm. Presenting the reality, even though it is substantially better than the perception, will still give evidence of a significant problem. Ironically, officials may see such evidence as bad for the school

image. Moreover, they may be reluctant to publicize a moderate norm as part of an effort to bring more permissive students in line with the actual norm, fearing that the information will be misconstrued as tacit support for moderation.

However, given the national attention to problems of drug use throughout society, it is doubtful that admitting only moderately permissive attitudes about alcohol as the norm will cause much negative publicity for most schools. Revealing a moderate norm may inadvertently bolster moderate alcohol use. But this possibility must be balanced against the problems created by misperceived norms. Obviously there are trade-offs. But the benefit of reducing alcohol abuse by correcting misperceptions is likely to exceed any negative consequences of indirectly promoting some students' moderate use.

Conflicting Prevention Program Strategies

Some traditional intervention techniques may conflict with the approach offered here. In particular, educational campaigns that saturate the campus with information about the effects of alcohol abuse among students may cause problems. It is true that students who perceive greater risks may be less likely to use drugs. Unfortunately, however, such a strategy may inadvertently exacerbate the misperception that campus norms are more permissive than they actually are. In some instances, education campaigns may raise awareness about the danger of a drug, but this information may also reinforce students' exaggerated perceptions of use and peer acceptance.

If programs continue to publicize evidence of campus abuse, then the true norms—what most students do and what they prefer—may fade from students' awareness. While particular drinking or other drug problems may be frequent on campus, rarely are they personally experienced by a majority of students. Drawing attention to an already visible minority of problem students may simply serve to amplify further the public conversation that feeds misperceptions of the norm. Thus, negative advertising about pervasive drinking and other drug problems may become counterproductive, inflating misperceptions of the student norm.

In order to create a more positive mindset among students, it might be better to report data differently, emphasizing the "incidence levels" of the majority who do not exhibit the problem. Of course the actual data remain the same, whether presented negatively as incidence rates of the problem or positively as rates of students who do not experience the problem. Concerns about those who abuse alcohol should not be neglected, but we must also consider the impact of the message on the audience who receives it. If the goal is to establish the need for intervention or to raise concern among administrators, then problem incidences should be highlighted. Most students, however, when given problem percentages, are unlikely to invert the calculation and think about who the dominant group of peers actually is. Pointing out that the majority do not want, and are not a part of, substance abuse on campus should be the top priority in presentations to students. An intervention model based on misperceptions is therefore a more proactive educa-

tional strategy, one that reveals the opposition of most students to abusive behavior.

Student Turnover

Since roughly a quarter of the student body changes every year at most schools, correcting perceived norms on campus might appear to be easier than doing so in a more stable community with entrenched perceptions. New students, however, do not come to campus with accurate perceptions. Some arrive with images that match the immediate campus misperception: stereotypes of "animal house" parties and drunken students gleaned from films and popular lore. Other newcomers may have no clear impression upon arrival. The former group may seek confirmation of their stereotype from other students. For the latter group, socialization into campus life begins quickly; these students look immediately to older peers to communicate expectations about social life. So the current perceived norms are passed along quickly to new students early in their college career. Thus intensive programs to address misperceptions may be crucial for new students, especially during their first few weeks on campus, a period when misperceptions are rapidly taking shape.

Counterproductive Role Models

Student roles models may have an unexpected negative effect on other students' misperceptions of peer norms. Most high profile students—resident advisors, student government leaders, star athletes, honors students—may exhibit less substance abuse than other students and therefore function as models of good behavior. Nonetheless, these students are just as likely to misperceive their peers' attitudes as other students are (Berkowitz & Perkins, 1986b; Perkins & Berkowitz, 1988) and to communicate these misperceptions in conversation. Ironically, then, with their disproportionate influence on socialization, these role models may be counterproductive, passing along misperceptions about the normative culture of alcohol or other drug use. For example, if a resident advisor talks casually about how most students abuse alcohol, then that advisor transmits false perceptions and creates pressure to abuse, even though his or her own behavior does not encourage abuse. To again use the image of a contagious disease, just as students in general are carriers of misperceptions, so too are role models. And their greater contact with others can be disproportionately destructive—more "virulent"—in passing on the misperception. Thus, it is essential for any program that addresses misperceptions to target students who serve as role models, just as it is for that program to target problem-prone groups.

Conclusion

The misperception of peer norms contributes significantly to problems of alcohol and other drug abuse on college and university campuses. Put simply, students overestimate the use of drugs and the permissiveness of their peers. Their peers in reality are more moderate in both use and attitudes, and more

of them are nonusers than students typically think. While substance abuse is unquestionably a serious problem on most campuses, students actually misperceive the extent of use, which, in turn, fuels the problem behavior. They end up following a distorted image of their peers, behaving in ways inconsistent with their own attitudes. So a "reign of error" on campus becomes a self-fulfilling prophecy. Thinking that greater use is what their peers expect, some students increase their consumption of alcohol and other drugs, thereby exacerbating an existing problem.

Over the past decade, research and programmatic attention to misperceptions has increased substantially at a variety of institutions nationwide. Generalizing from this work, five basic points are applicable on most campuses. First, perceived norms exceed actual norms regardless of the type of drug. Second, misperceptions persist over time. Left unattended, they become entrenched in the campus culture and are passed from one class to the next. Third, similar misperceptions of peers exist in junior high and high school; students come to college with a misperception of the campus norm, and that misperception grows worse after arrival. Fourth, misperceptions are pervasive across gender, extracurricular, and housing subpopulations. Regardless of constituency and personal drug use, students are likely to be "carriers" of the misperception, passing it on in conversation and reinforcing it in the culture. Fifth, these misperceptions may significantly affect students' personal use independent of, and in addition to, their own attitudes and the actual campus norm. Misperceptions help reinforce the already permissive attitudes of some students, leading to more abusive behavior, whether actual campus norms are moderate or relatively permissive. These misperceptions may pressure students with more moderate attitudes to increase their own drug use. Alternatively, such students may decide not to express their attitudes in conversation, not to intervene in drug abusing circumstances, and not to socialize with peers; such actions further confirm students' exaggerated perceptions of permissiveness.

Our basic knowledge about misperceptions has come of age. So too has our theoretical understanding of the sociocultural and psychological nature of misperceptions in college life. But the creation of programs to address misperceptions is still in its adolescent phase of development. A variety of reliable survey techniques are now emerging to collect data on norms and misperceptions. Several institutions have successfully introduced strategies to publicize actual norms and to help reduce misperceptions. Others have developed workshops and orientation programs that allow students to reveal their true attitudes and to see actual norms in a group. Clearly, though, we need more techniques for correcting misperceptions, and more studies to assess effectiveness.

Other work on misperceptions is in its infancy. We need more research to identify students most likely to follow the perceived norm, those whose perceptions are most distorted, and those who respond best to attempts at

correcting their perceptions. Budget and personnel constraints may prevent some programs from spreading the word effectively to every student. We may therefore need to decide who are the most important targets for changing misperceptions. We also need to see how our efforts to combat misperceptions can be integrated with other intervention strategies already in place on many campuses.

Although confronting students' misperceptions about alcohol and other drug norms is no small task, the benefits of doing so should be well worth the effort. If we can reduce misperceptions and thereby increase the power of more moderate peer expectations, we can considerably enhance the efforts of colleges and universities to reduce alcohol and other drug problems among students.

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