Addiction as a Cultural Concept

Stanton Peele; Annals of the New York Academy of Sciences, 602:205-220, 1990.
[Identifier: http://www.doctordeluca.com/Library/AbstinenceHR/AddictionCulturalConcept90.htm]
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See also:
Introduction: War on Drugs, War on Doctors, and the Pain Crisis in America – DeLuca; 2004
The Cultural Framing of Addiction – Robin Room; 2003

Abstract

Our current conception of addiction is a historical anomaly, one that has arisen independent of laboratory or epidemiological data about drug use. This concept has never reflected actual patterns of heroin use, and it currently does no better at describing cocaine use. Neither this vision of heroin addiction nor an equally popular, complimentary model of alcoholism accurately reflects data on the cause, epidemiology, life history or consistency of addictive behavior. Nonetheless, versions of addictions based on these images of narcotic addiction and alcoholism have become increasingly popular in the second half of the twentieth century and have been generalized to whole new areas of behavior, where they succeed no better at explaining the data. These concepts, moreover, have considerable potential for doing harm.

Introduction

In 1929, two Philadelphia physicians--Arthur Light and Edward Torrance--attempted to identify physiological correlates of the withdrawal experienced by hospitalized addicts suddenly withdrawn from morphine.1 The range and care of their measures, including detailed analysis of the blood, blood pressure, respiratory data, cardiovascular recovery rates, and urinalysis, has hardly been matched since. The research turned up no reliable biological index for withdrawal: The variability among the addicts on all the measures was too great.

Beyond these measures, the researchers reported the connection between actual administration of the drug and craving as described by the addicts was highly unreliable and subjective. The most recalcitrant subject refused to continue the experiment at 36 hours after withdrawal unless he was given more morphine, at which time the experimenters injected him with sterile water. This addict "promptly went to sleep for a period of eight hours" and "never became aware of the fact that he was given nothing but sterile water " (p. 12). Noting their own failure to "find any marked changes" in circulation, metabolism, respiration, or blood composition, the researchers anticipated other investigators might criticize the research regimen in the experiment. They cautioned any such critics, who might have observed addict behavior during withdrawal, that "the

incessant begging and annoying behavior of the addict during the withdrawal period becomes at times almost unbearable," thereby "warping" the judgment of observers and leading them "to conclusions that would not have been reached except for the behavior of the addict" (p. 14).

Light and Torrance did observe a withdrawal syndrome composed of restlessness, vomiting, diarrhea, perspiration, and enervation. However, they considered these reactions that supposedly defined narcotic withdrawal not to be particularly singular or noteworthy; for example, they reported observing a similar syndrome among "a university football team just prior to the playing of a so-called 'important game'...yet, when the whistle starting the game is blown, all fatigue quickly disappears" (pp. 14-15). Observations such as these led subsequent observers to accuse Light and Torrance of naiveté about the biological reality of withdrawal, and of mistaking withdrawal for a form of malingering.

Light and Torrance's addicts were maintained on high levels of morphine, and yet their withdrawal could be overcome by admonition, forced labor, or H20 injection. Unlike the high dosage levels these 1920s addicts were accustomed to, addicts on the streets of major North American cities today often report to clinics with pronounced addictive symptoms but are not found to have any narcotics in their systems. This phenomenon has prompted the coining of phrases like "pseudo-junkie" and "pseudo-heroinism" and speculation about "psychologic vs. pharmacologic heroin dependence."2/3/4 In other words, a substantial number of patients who report potent addictive symptoms have taken little or no heroin, while regularly maintained narcotics users often express feeble or inconsistent withdrawal. Our reaction to these phenomena does not conform to the supposedly empirical basis of science: We deny the former is "real" and ignore the latter in order to maintain our existing preconceptions of addiction.

Since the 1929 Light and Torrance research, we have observed a hardening of ideas about the reality of addiction and its invariant relationship to narcotics use. Yet we are less able actually to account for observations either about clinical addicts, or about the millions of people who take considerable amounts of narcotics (in the hospital, for example) without becoming addicted. The formalization of the addiction concept and of notions of addictive symptoms does not represent a scientific advance, and instead is better understood as a cultural phenomenon that fulfills functional and symbolic needs. If we actually wished to create a scientifically well-defined concept of addiction, we would need to wean ourselves from our preoccupation with narcotics and several other illicit drugs and to think about why people form overwhelming attachments of all kinds.5

A History of the Addiction Concept

Light and Torrance's research took place in a historical epoch when the addiction syndrome was newly formalized as a specific entity traceable to habitual narcotics use and cessation of use. Ten to 20 years earlier, Light and Torrance would not have been able to find hospitalized, long-term narcotics addicts who would manifest such ready

indications of the addiction and withdrawal syndromes as their subjects presented. In other words, even the somewhat pale list of symptoms these addicts manifested--considered as a specific, chemically induced syndrome--was of recent historical origin. The narcotic addiction syndrome had not been widely identified in the public mind or by physicians in the nineteenth century or in any other previous era, although narcotics had been known and used since antiquity.

The German physician Levinstein was the first to describe narcotic addiction in detail, in 1877. Even so, at this early date Levinstein "still saw addiction as a human passion 'such as smoking, gambling, greediness for profit, sexual excesses, etc.'" (Berridge & Edwards,6 pp.142-143). Further, "from 1870 to 19OO, most physicians regarded addiction as a morbid appetite, a habit, or a vice" (Isbell,7 p. 115). At the same time, "acetanilide, bromide, and caffeine attracted almost comparable concern to that drawn by opium," and "the analogy so easily drawn with tobacco and particularly alcohol habituation" confused notions of narcotic addiction and tangled efforts at control" (Sonnedecker,8 p. 21). Earlier, although some theorists described narcotic addiction, "this does not mean [they]...held any concept distinguishing addiction to opium from addiction to, say, sugar plums. . . . In this period between the late 16th and the early 19th centuries. . .'to addict' commonly meant 'to devote, give up, or apply habitually to a practice' such as to a vice . . . . [those using the term] meant: It's a bad habit" (Sonnedecker, p. 18).

The modern form of the concept of addiction as an uncontrollable disease did not appear originally with narcotics, however, but with alcohol. Levine9 has described "The Discovery of Addiction" in his article of that title: "The idea that alcoholism is a progressive disease--the chief symptom of which is loss of control over drinking behavior and whose only remedy is abstinence from all alcoholic beverages--is now about 175 or 200 years old, but no older" (p. 143). Previously, in colonial America and before, habitual drunkenness was considered a vice or moral failing or lack of self-control. Only very near the end of the eighteenth century was alcohol first recognized, even by drunkards themselves, as having the power to cause people to drink uncontrollably.

In the nineteenth century the temperance movement argued that alcohol inevitably provoked loss of control. That is, the nineteenth-century view of alcohol addiction is exactly that which in the twentieth century has been connected to narcotics: that the drug is inherently addictive so that regular use guarantees an enslavement of the individual that leads progressively to moral collapse and death. This idea of progressive, irreversible, inevitable exacerbation of the habit, causing loss of control of personal behavior and of the ability to make moral discriminations, actually retains strong elements of both colonial and temperance moralism. It is therefore not correct to say simply that modern disease notions have replaced outdated "moral" models of drug use. Rather, relabeling misbehavior as a medical consequence of drug use locates the source of evil in the drug and dictates that the addict's moral responsibility is to avoid the substance entirely--that is, to abstain.

Essential redefinitions of both alcohol and narcotic addiction occurred at the turn of the twentieth century. The term "alcoholic" was accepted as a popular designation for the

chronic inebriate only in this century, after the founding of Alcoholics Anonymous. Before that time, "drunkard" was the standard designation and "dipsomaniac" was for a long term the preferred psychiatric term. After World War I, Dr. William Silkworth became the first to treat alcoholics based on the idea that they suffered from an inbred allergy to alcohol that caused them to lose control of their drinking. One of his patients, William Wilson, cofounded Alcoholics Anonymous in 1935. The Silkworth/Wilson model of alcoholism has continued to grow steadily, aided by an effective campaign led by Marty Mann and the National Committee for Education on Alcoholism (later to become the National Council on Alcoholism) she helped organize in 1944.10

This modern version of the disease theory of alcoholism thus conceived of alcoholism as a danger for only a small group of afflicted, biologically predestined individuals. Only this group had to abstain, or else they would progress to the same self-destruction that the temperance movement had outlined for all drinkers. Such a revised disease theory was required (after Prohibition was repealed in 1933) to fit a world in which drinking was ubiquitous, popular, and largely benign. Today, the AA-modified disease modal represents the dominant American conception of alcoholism, and public opinion polls indicate that about 90% of Americans accept the view that alcoholism is an illness that must be treated medically.

Changes in views of drug addiction were in almost an exactly opposite direction. In the case of narcotics (and, along with it, cocaine), the entire thrust was to redefine previously accepted substances as dangerous and to proscribe their use for ordinary, law-abiding citizens. The campaign against narcotics under the leadership of Harry Anslinger (founder of the Federal Bureau of Narcotics) began by imposing increasingly stern legislation on labeling, importation, and administration of the opiates. Heroin was introduced in the United States in 1898; by the 1920s it had become the principal object of addiction control efforts, while its use had been relegated to a small group of inner-city addicts. What is most important about these political, economic, medical, and public-relations developments is that narcotics, especially in the form of heroin, came to be seen in American society as the nonpareil drug of addiction--as leading inescapably from even the most casual contact to an intractable depend-ence, withdrawal from which was traumatic and unthinkable for the addict.

That addiction and alcoholism had to be discovered seems bizarre and unnecessary to us, owing to the thoroughness of our indoctrination in the idea that these things are biological entities that have been independently established through clear scientific discovery and practical experience. How, then, have they been missed by so many of the world's cultures for so many centuries? After all, both alcohol and narcotics have been used widely throughout history. Yet only relatively recently, and then primarily in a few Western societies, did addiction and alcoholism come to be perceived as biological phenomena, a part of the natural landscape. How have so many societies and individuals misunderstood, ignored, or failed to perceive such obvious consequences of alcohol and narcotic consumption?

This issue so fundamentally undermines the basis of what we assume today to be objective reality that addictionologists regularly seek to explain away data such as American and British opiate use in the nineteenth century. For in the last century, opiate and other drug use in the United States and Britain was massive and indiscriminate and yet, only near the very end of this era--paradoxically when both societies had substantially reduced their use of opiates--was addictive symptomatology first recognized as a specific byproduct of narcotics use and the addiction concept invented.

Historical works generally maintain that widespread narcotics use failed to create an awareness of addictive symptomatology in nineteenth-century societies because ignorance prevented people from drawing the appropriate connections between usage and addiction symptoms such as withdrawal. These explanations manage to be at the same time tautologous (addiction was not recognized because it was unrecognized) and preposterous (people far more familiar than we are with self-administration of narcotics were not as aware as we are of their inevitable effects). For example, Lindesmith11 argued addiction was not common in the last century because addiction can only occur when the narcotics user understands that narcotics produce withdrawal effects and that renewed use relieves withdrawal distress. In other words, for Lindesmith, the genuine addict could only exist in an era that has an understanding of addiction identical to that which currently dominates our society!

Berridge (a historian) and Edwards (a psychiatrist) examined the social and medical history of the addiction concept as it developed in England.6 These authors described the massive use of opiates by working class Britons through the middle of the nineteenth century: In one region (the Fens), per capita consumption was the equivalent of 137 therapeutic doses of opiates per annum. This commonplace use of narcotics did not arouse special public concern about addiction, and only late in the century did medical authorities label and treat addiction as a specific medical syndrome in connection with the popularity of injectable morphine among the middle classes. Even at this point, however, the medical image of the specificity and frequency of the narcotic addiction syndrome seems to have been tremendously overstated:

There is little evidence that there were large numbers of morphine addicts in the late nineteenth century. The quite small number . . . who happened to be obvious to the medical profession assumed the dimensions of a pressing problem--at a time when, as general consumption and mortality data indicate, usage and addiction to opium in general was [sic] tending to decline, not increase. Morphine use and the problem, as medically defined, of hypodermic self-administration were closely connected with the medical elaboration of a disease view of addiction. (pp. 147-150)

This description actually allows for two separate interpretations (both of which these authors make). Either there was a great deal of addiction in the mid-nineteenth century when opiate consumption was greater, but physicians only began to recognize addiction as it actually was on the wane; or else addiction actually did increase at the end of the century, even though consumption was declining, because "the profession, by its enthusiastic advocacy of a new and more 'scientific' remedy and method, had itself

contributed to an increase in addiction" (p. 149). In the latter case, the very medical imagery of addiction contributed to compulsive drug use.

Berridge and Edwards' potentially radical, revisionist work suggests "Addiction is now defined as an illness because doctors have categorized it thus" (p. 1 50). At exactly this point, the reader is referred to an appendix in which Edwards announces: "The opiates are drugs of addiction . . . anyone who takes an opiate for a long enough period and in sufficient dose will become addicted" (p. 278). Edwards is so confident of this assertion that he does not feel an obligation to reference it. What then are we to make of his own historical analysis with Berridge indicating that addiction has only recently been invented by the medical profession--and that this invention has had counterproductive effects? Apparently, despite their own data, these authors (particularly Edwards) are absolutely incapable of reconceptualizing addiction as something other than an inevitable physiological consequence of continued narcotics use.

The cross-cultural literature on drinking styles and the effects of alcohol presents a similar dilemma. In the words of several prominent ethnographers in the alcoholism field: "Drinking problems are virtually unknown in most of the world's cultures" (Heath,12 p. 436), and "solitary, addictive, drinking behavior does not occur to any significant extent in small-scale, traditional, preindustrial societies" (Marshall,13 p. 451). Finally "beverage alcohol usually is not a problem in a society unless . . . it is defined as such" (Marshall, p. 452). Heath14 investigated the Bolivian Camba--a group with among the highest recorded rates of alcohol consumption in the world. People in this culture drink an 89% ethanol beverage. They only drink at social gatherings, held several times a month, in which all those present over 12 years old drink throughout the day and night. Although these drinkers typically blacked out, Heath observed no cases of antisocial aggression, alcohol withdrawal, or solitary or loss-of-control drinking. One such contradictory instance as this is sufficient to disprove any biologically determined formula about the natural relationship between heavy drinking and alcoholism.

What Is The Empirical Grounding for Our Beliefs About Addiction?

Although historical and cross-cultural cases reveal that addiction is neither a universal concept nor a universal phenomenon, it is commonly held that a host of solid scientific evidence underlies our beliefs about the special addictiveness of narcotics. This supposed scientific validation allows us to claim most of the world's population has been wrong about narcotics and alcohol, and instead ought to think like we do now about addiction. Because the United States is the world's leading exporter of scientific ideas, a realignment of attitudes about alcoholism and addiction is occurring in many countries worldwide.

Let us outline briefly what type of evidence would either support or disprove the idea that narcotics are drugs of addiction. If narcotics are addictive, people who take them should be inclined to take them more frequently, compulsively, and unvaryingly than do users of other, nonaddictive drugs, or to have fewer degrees of freedom than people reveal in

ordinary (that is, nonaddicted) habitual behavior. It is perhaps not surprising that research testing these notions has rarely been carried out; after all, we know that narcotics arc addictive. Thousands of people have reported for treatment for such addiction over the decades since the 1920s; laboratory animals can be made to welcome injections of narcotics; and so on.

On the other hand, evidence and unbiased observation regularly find that street narcotics use, even regular use, does not lead to addiction. This evidence is too extensive to review here, beyond a quote from one typical, recent study of black heroin users in four American cities: "The heroin users and the lifestyles presented reveal men, who, despite regular heroin use, engage in many conventional activities and are able to control their heroin use, taking on the average only one shot of heroin a day. This lifestyle challenges the current media and popular image of. . . inner-city heroin users as . . .[being] enslaved by an uncontrollably escalating heroin habit" (from the book jacket of Hanson et al.15). This statement is wrong, however, in limiting mistaken images to the media and popular opinion. These images are accepted and propagated by leading scientific investigators, including those whose results most thoroughly disprove the notions of addiction they defend.

One event (and the research that accompanied it) not only presents conclusive evidence that popular and scientific images of addiction are wrong, but also indicates how mistaken images remain unshaken despite thoroughgoing assaults on their fundamental assumptions. The research in question is that conducted by Robins, Helzer, and others of the use of narcotics by G.I.s who returned from Vietnam. Narcotics users were identified and interviewed on their return home and three years afterwards; the researchers in addition analyzed urine samples from subjects. The most significant aspect of this research was that it identified addicted heroin users in a nonclinical setting. The results of the study, in the words of the investigators, "changed our view of heroin."16 The questions they posed in their research and the answers they obtained are as follows:

1. Does the use of heroin rapidly progress to regular use and addiction?

Use of heroin purchased on the streets of the United States in 1974 did not lead rapidly to daily or compulsive use, no more so than did use of amphetamines or marijuana.

2. Does heroin use supplant the use of other drugs?

Heroin does not seem to supplant the use of other drugs. . . . The stereotype of the heroin addict as someone with a monomaniacal craving for a single drug seems hardly to exist in this sample. Heroin addicts use many other drugs, and not only casually or in desperation.

3. Is addiction to heroin more or less permanent without prolonged treatment?

> Of all the men addicted in Vietnam [defined as prolonged heavy use and severe withdrawal symptoms lasting more than two days], only 12% have relapsed to addiction at any time since their return. . . . Of those men who were addicted in the first year back, half were treated and half were not. . . . Of those treated, 47 percent were addicted in the second period; of those not treated, 17 percent were addicted . . . Treatment is certainly not always necessary for remission.
>
> **4. Does recovery from addiction require abstinence?**
>
> Perhaps an even more surprising finding than the high proportion of men who recovered from addiction after Vietnam was the number who went back to heroin without becoming readdicted . . . . Half of the men who had been addicted in Vietnam used heroin on their return home, but only one-eighth became readdicted to heroin. Even when heroin was used frequently . . . , only one-half became readdicted. (pp. 217-223)

That heroin use no more often led to addiction (or regular or compulsive use) than did amphetamines or marijuana; that those addicted to heroin often used other drugs, sometimes in preference to heroin; that spontaneous recovery was more common than not; and that many of those who gave up their addictions after returning home did not relapse to addiction when they used heroin stateside attack the foundations of the claim that the opiates are, in Edwards' words above, special "drugs of addiction." What may be more remarkable than the findings themselves, however, is the total lack of impact they have had on addiction research and theory. Few researchers today would be inclined to challenge the claims Edwards makes which, after all, appeared after the Vietnam data were published.

Indeed, even the investigators who revealed the startling findings about Vietnam Veterans could not accept the implications of their own research. In their report of their results, these authors remarked that "Heroin is worse than amphetamines or barbiturates only because 'worse' people use it" (p. 229). Nonetheless, the investigators, who titled their work "Vietnam Veterans Three Years After Vietnam: How Our Study Changed Our View of Heroin," indicated amazement that heroin users acted in no more addicted a way than users of other drugs even though "laboratory experiments have shown it to be a highly addicting drug" (p. 216). Typically, this last statement was unreferenced.

Actually, according to Charles Schuster17 (currently director of the National Institute on Drug Abuse and a leading animal researcher), compulsive drug-seeking behavior is often attributed to the seductive reinforcing effects of certain insidious drug molecules. Instead, his research indicates, "behavioral variables are as important as pharmacological ones in the development of compulsive drug-seeking behavior" (p. 358). Another behavioral psychopharmacologist concluded after several decades of animal research, "any intrinsic, pharmacological reinforcing functions [of drugs] are altered radically by seemingly small changes in behavioral context"18 (p. 389).

These conclusions are based on studies finding that animal drug self- administration requires a specific experimental environment and can be "turned off" by such minor modifications as increasing the amount of bar pressing required to obtain the drug. In other circumstances, animals can hardly be forced to take a drug. Alexander and his colleagues19 noted that animals in spacious cages they shared with other rats overwhelmingly preferred drinking water to a narcotic solution, even after having drunk the solution exclusively for several weeks. Falk18 similarly noted animals that consume drugs and alcohol excessively when under extremely uncomfortable experimental inductions cease to do so as soon as normal laboratory conditions are reinstated. Findings like these led Dole20 (1980) to note: "Most animals cannot be made into addicts." In response to drugs reported regularly to addict human beings, "animals generally avoid such drugs when they are given a choice" (p. 142).

Robins et al.'s faith that, while their own research contradicts such a notion, other research demonstrates the genuine nature of heroin addiction presents a kind of "Catch 22" in addictionology. No amount of data disproving the most basic assumptions of the current model is sufficient to undermine the model, since the model is already beyond questioning. In a related analysis, Peele21 analyzed shifting, sometimes radically divergent findings about the likelihood of former alcoholics or other addicts moderating their consumption. Sometimes the same groups present diametrically opposed results. For example, we saw above that Robins, Helzer et al. found that the large majority of returned Vietnam narcotic addicts who used heroin in the States did not relapse into readdiction. Five years later, the same group reported that l.6% of alcoholic patients achieved genuine moderate drinking, leading to the conclusion that "The evolution to stable moderate drinking appears to be a rare outcome among alcoholics"22 (p.1678).

What accounts for these remarkably disparate images of the possibility of attenuating addictive substance use? One might posit that narcotics addiction is the easier habit to moderate, although this is certainly not a popular point of view or one that researchers such as Robins and her colleagues would be likely to endorse. Alternately, perhaps the earlier narcotics research was severely flawed, while the later alcoholism research was not; indeed, the Helzer et al.22 team (while not discussing their own earlier strongly contradictory findings with narcotic addiction) discounted the discovery of substantial controlled-drinking outcomes by other investigators on these grounds. An alternate explanation offered by Peele21 is that the explanatory culture changed: that growing medicalization of alcoholism treatment, rapid growth in the acceptance of the disease view of alcoholism, and other background and professional factors in the lives of researchers and the scientific (as well as popular) culture accounted for changes in reported findings.

The Cultural Concept of Addiction

Room23 attempted to explain the "culture-bound" appearance of addiction "as depending for its existence and meaningfulness on sociocultural characteristics specific to particular times and places" (p. 133). Room's concern was especially with "loss-of-control" models,

which Levine's9 analysis--in the case of American attitudes towards alcohol and habitual drunkenness-- showed clearly to be a cultural invention. For Room, such an idea of loss of control is the mirror image of the Calvinistic notion of control, thereby explaining its appearance most prominently in advanced industrial societies. Room expresses here, in common with many clinicians and liberal commentators, a neutrality, if not negativity, toward self-conscious Western ideas of self-control.

Nonetheless, the occurrence of addiction is not clearly linked to Protestantism or to the achievement ethos. Within the United States and worldwide, for example, alcoholism is prominent among the Irish Catholic and non-Protestant Eastern European groups.24 Moreover, as Room23 noted, Native American cultures do not share the Calvinistic value of constant self-control and yet they display the most severe alcoholism problems in the United States. Jews and Chinese Americans, on the other hand, consistently display the fewest alcohol problems among American ethnic groups, including very few observed cases of clinical alcoholism. Yet the Jews and Chinese Americans are distinguished by their high levels of achievement motivation, values toward self-control, and community disapproval of antisocial acting out.25

MacAndrew and Edgerton's analysis, Drunken Comportment, described how various cultures create a social compact about exactly what behavior--or misbehavior--will be tolerated on drinking occasions, even those involving drunken excess.26 Remarkably, nearly all drunken behavior occurs within these cultural guidelines. For example, the researchers described cultures that practice drunken sexual orgies in which incest taboos are observed by culture members who are apparently uncontrollably intoxicated. These taboos apply to intricate familial relationships that observers outside the culture are unable even to comprehend.

The question of whether certain involvements thought to be addictive excuse certain types of behavior is central to current legal, political, and therapeutic debates. The rapidly expanding reliance on loss-of-control models of addiction has generalized images originally proposed for disease views of alcoholism and heroin use to wholly new areas of behavior. The expanded application of these addictive models has profound implications for psychological experience, personal responsibility, and addictive phenomenology in our society.27

Moralism, Politics, Economics and the Addiction Concept

While addiction models such as the disease theory of alcoholism purport to be value free, they actually convey distinct values about human responsibility and about the desirability of certain kinds of behavior. For example, the application of addiction and dependence models to different drugs has always projected the dominant moral views of our society (see, for example, the drug tables popular in the 1960s that labeled all disapproved drugs--but no legal drugs other than alcohol--capable of producing psychic or physical dependence; Peele,5 p. 22). In the case of drugs in the United States, the moral message

is of the evil and allure of the illicit drug experience, and of the need totally to avoid such experience.

The moral lesson that drugs control and corrupt users was graphically depicted in the classic drug film, "Reefer Madness." This lesson is regularly repeated with whichever new drugs become popular for recreational use. Often, this message is presented in the guise of scientific discovery. For example, in the NIDA publication Cocaine Use in America, Cohen28 wrote:

> Cocaine-dependent humans prefer it to all other activities. They will continue to use it until they are exhausted or the cocaine is depleted. They will exhibit behaviors markedly different from their precocaine lifestyle. Cocaine-driven humans will relegate all other drives and pleasures to a minor role in their lives. [p. 152]

This quote supports the imagery of "Reefer Madness" and "Demon Rum" with claims to have scientifically linked certain kinds of uncontrolled, immoral behavior to a specific chemical structure:

> If we were to design deliberately a chemical that would lock people into perpetual usage, it would probably resemble the neuropsychological properties of cocaine . . . . It is likely that anyone with access to cocaine in quantity is at risk . . . . The primary deterrent [to cocaine dependence] is the inability to sustain the practice because supplies become unavailable. The user is then driven to obtain additional cocaine without particular regard for social constraints. A variety of paranoid, manic and depressive psychotic states result with accidental, homicidal or suicidal potentials. [pp. 151-153]

Despite decades of experience with this drug, including much laboratory experimentation and growing recreational use in the 1970s, cocaine was designated as a nonaddictive (or non-physical-dependence-producing) agent well into the 1970s. As cocaine became a major recreational drug in the 1980s, pharmacologists began claiming cocaine produced a condition indistinguishable from addiction because of cocaine's extreme "psychological addictiveness" (cf. Peele5). It is evident now from Cohen's quote above that the line separating cocaine from "genuine" addictiveness has been discovered to have been exceeded. What epidemiological data have prompted the discovery of cocaine's inherent addictiveness?

Preliminary results from the 1988 NIDA National Household Survey of Drug Abuse indicate very few cocaine users become addicted. The survey found that 21 million Americans had used cocaine in their lives, 8 million had used it in the last year, 3 million were current users, but that only 300,000 used cocaine daily or nearly every day. Government statistics thus show that 10% of all current users and about l% of lifetime users use the drug close to daily. Siegel29 followed a group of regular cocaine users for nine years. Of this group, four-fifths remained social, situational, or recreational users. Moreover, even those in this study who abused the drug did so intermittently and thus did

not resemble the addicted cocaine hotline callers who typify cocaine use for numerous television programs about cocaine. These findings agree with the results of other field studies of cocaine use.30

As for crack, a front-page story on crack addiction in the New York Times trumpeted the headline "Importance of User's Environment is Stressed Over the Drug's Attributes." The first paragraph of the article stated31 "Drug experts now believe that the extreme difficulties they face in treating crack addiction stem far more from the setting and circumstances of the users than the biochemical reaction the drug produces." The Times article reported that addicts in surveys conducted in the United States, Britain, and Canada reported that they found it easier to quit cocaine--"either injected, sniffed, or smoked"--than alcohol, heroin, or cigarettes. By the other key measure of addiction in addition to difficulty in ceasing use, that is, the frequency with which use leads to compulsive use, cocaine also seems considerably less addictive than some other familiar substances. The Times cited figures from NIDA researchers indicating that five times as many cigarette smokers become addicted as crack users. In all of these data, we see that a new drug presented as the penultimate addictive substance falls into place as being no more or less addictive than other popular illicit and recreational drugs and that, moreover, situational and social factors remain crucial in determining the drug's addictive usage patterns.

Nonetheless, it appears to be obligatory to begin not only popular but scientific discussions of cocaine use with lurid descriptions of the addictive nature of the drug and of clinical or historical accounts of hopelessly self-destructive drug users. Perhaps most scientists fear that to do otherwise might encourage cocaine experimentation, including that small minority for whom such use becomes compulsive and self-destructive. The rewards and punishments are so fundamentally opposed to any announcements of controlled use of illicit substances that they are guaranteed not to appear, thus confirming the worst expectations about any drug that society and its scientists focus their attention on. The controlled-drinking dispute in the United States is another example of this trend; no one can afford to endorse the possibility of controlled drinking by alcoholics, and, indeed, not even those who discover it accept controlled drinking as a possible therapy outcome.

Pokorny, Miller, and Cleveland,32 for example, examined outcomes among a group of alcoholics treated in a hospital alcoholism program. The study revealed 23% of patients were drinking in a mild, social way, and 25% were abstinent one year after discharge from the hospital; in this study abstinence was the less stable pattern, with abstinence decreasing over time while moderate drinking increased over the course of the study. This occurred although the study reported hospital treatment insisted that "life- long abstinence is a necessity in the rehabilitation of alcoholics." Results from a highly unstable group of alcoholics who varied between abstinence and excessive drinking were so poor that the investigators concluded treatment was hardly worthwhile for them. The chief investigator wrote me about this study:

> We did not have controlled drinking as a goal, and this was nowhere advocated or taught to patients, even any subgroup of patients. We simply reported the findings at follow-up, which included a substantial group of patients who were not totally abstinent but whose behavior could fairly be classed as improved, perhaps even "controlled" . . . . My personal views were then and have remained that abstinence is the only reasonable goal for clearcut alcoholics, but I try to keep an open mind on the subject. [A.D. Pokorny, personal communication, July 16, 1987]

This study and its principal author's response raise the question, "why bother to conduct research?" Clearly, we are dealing in the case of addiction with areas in which scientific investigators do not simply ask questions, get answers, and apply results.

The model of addiction as a distinct malady requiring treatment that substantially enhances prognosis has a strong economic basis. Miller and Hester33 noted in reference to comparisons between inpatient and outpatient treatment for alcoholism: "Every study has reported either no statistically significant differences between treatment settings or differences favoring less intensive settings" (p. 802). Nonetheless, hospital treatment for alcohol and drug dependence has increased several-fold during the 1980s and has become increasingly coercive and most patients are now forced into treatment by the courts and businesses.27 The principal advantages to expensive, inpatient care seem to be financial ones for providers and a sense of neat categorization and hoped-for benefits for society at large.

Berridge and Edwards6 explain that "images of addiction are consistently and relentlessly marketed--in the nineteenth century to make opium the property of the medical profession . . . . The nineteenth-century discovery that the addict is a suitable case for treatment is today an entrenched and unquestionable premise, with society unaware of the arbitrariness of this come-lately assumption . . . . [However] any suggestion that the current model is fundamentally mistaken in its assumption, and that the treatment enterprise should be closed down and people with bad habits left to their own devices, would be dismissed only as outrageous and bizarre" (pp. 250-251). Edwards may have been jaundiced by his own research experience, in which a well-controlled study of hospital treatment for alcoholism revealed just as much improvement among one group given a single session of advice as occurred in a comparable group receiving the full complement of inpatient and outpatient hospital services.34

The extent of the solidifying and broadening of the addiction concept goes beyond deciding that cocaine was previously wrongly thought to produce "psychic dependence" and is actually capable of producing "physical dependence," that alcoholism is a treatable disease so that those with a drinking problem who deny they require alcoholism treatment ought to be threatened with jail or loss of job, or, alternately, that those who commit crimes and who also drink heavily should be offered treatment in place of jail sentences. Entirely new areas have been opened to disease imagery, understanding, and treatment. Children and other relatives of alcoholics who do not themselves have drinking problems are now treated as though they have a disease, as are those who compulsively gamble,

shop, overeat, fornicate, or participate in abusive relationships. Any and all of these compulsions and others (like PMS), reconceived according to the model of misbehavior as uncontrollable addiction, dominate contemporary psychological thought.27

Actually, the tail is now wagging the dog. We are not so much misconceiving addiction as we are living in a culture increasingly controlled by a new notion of individual responsibility based on the addictive model. To argue today that people--even those who drink a good deal or take drugs or have premenstrual mood swings--ought to be held liable for their conduct, particularly when they harm others, is to wage an increasingly uphill battle. The person who says people who drink too much or who misbehave when they drink are the primary agents of their actions and should be held accountable for them is actually the one least likely to become alcoholic.25 Nonetheless, one who declares such a view today is considered ignorant of modern scientific advances in the field of alcoholism and addiction.

The scientific data are a far cry from providing support for this view. Actually, the modern, so-called "scientific" disease model of alcoholism comprises a mass of prejudices and misinformation. It is certainly not the "value-free" view its supporters contend it to be, at the same time that alternative views are either accused of amorality (because they maintain that people often take drugs or drink without losing control of their lives) or moralism (because they insist that alcoholics are, like everyone else, purposive actors, even while they are drinking). In fact, the modern, broadened concept of addiction represents a new moral vision, one that unfortunately will not reduce addictive behavior. It cannot treat away addiction, while it does encourage more misbehavior under the guise of addictive symptoms.27

Issues of drug use and other excessive behavior have always been morally tinged, just as models about these things have from the beginning of scientific theorizing about them been heavily influenced by politics and social conceptions. Now, as much as or more than ever, the science of addictionology has become a political, economic, and religious tool. We feel confident that we long ago left behind the era where Galileo could be persecuted for maintaining empirically based but unpopular conceptions of the universe. Yet, we have progressed in some ways remarkably little from Galileo's time in the sense that what is declared scientifically "true" depends primarily on popular opinion. Nowhere is this more evident than in the case of addiction, an area that touches our deepest fears about our ability to manage our selves, our children, and our society.

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