

Behavior in a Vacuum: Social-Psychological Theories of Addiction That Deny the Social and Psychological Meanings of Behavior

Stanton Peele

Mathematica Policy Research

Social psychologists have been in the forefront of the development of modern theories of cigarette smoking and obesity. These theories are reductionist: they account for behavior in purely physiological terms and regard cognitive, value, personality, and social class factors as secondary or irrelevant. Yet, from their beginnings, these theories have failed to account for major aspects of the behaviors under investigation, aspects apparently related to personal intention and social background. While it may seem surprising that work by social psychologists denies social and psychological reality, the theories discussed here actually reflect broader trends in social psychology, trends with rather large implications for our ideas about individual and social efforts at change.

Since the late 1960s, three theoretical models associated with Stanley Schachter and his students have dominated the study of eating and smoking behavior. Schachter's (1968) internal-external model, which proposed that obese persons relied primarily on external cues to regulate their eating, built upon Schachter's earlier laboratory research designed to provide succinct, mathematical explanations of human behavior. The internal-external model was superseded by Nisbett's (1972) set-point model of eating behavior, which postulated that a biological mechanism defends the innate body weight of each individual. The set-point model of obesity was complemented in the area of smoking behavior by Schachter's (1977, 1978) research showing that smokers in the laboratory strove to maintain habitual levels of cellular nicotine, a finding Schachter generalized into his nicotine-regulation model of addictive smoking. The nicotine-regulation model has become prominent along with the recognition that smoking and overeating have major similarities with alcoholism, narcotic addiction, and other appetitive-addictive conditions (Peele, 1985).

Yet, all of the models developed by the Schachter group in the area of appetitive-addictive behaviors have demonstrated severe limitations in predicting the behavior of human beings in natural settings. Schachter (1982) himself later found that over 60 percent of respondents in a survey of two community groups who had ever smoked or been overweight, but who had attempted to modify their behavior, were no longer obese or smokers. Ironically, both the set-point and nicotine-regulation models had been devised primarily to explain why overeating and smoking seem so resistant to efforts at change. The models' failures in this instance reflect the inherent inadequacies of explanations of addiction that refuse to incorporate social-psychological facts as fundamental determinants of behavior (Peele, 1981). These failures are especially noteworthy in the case of the Schachter group's work since this work grew out of core areas of social psychological research, and might thus be thought unlikely to fall prey to a reductionist oversight. Instead, the work of Schachter and his students in the areas of smoking and obesity reveals that strong reductionist assumptions characterize social psychology: namely, the dominant theme in contemporary social psychology is that human beings are fundamentally unaware of and unable to influence the sources of their behavior (Nisbett and Ross, 1980). For example, according to Schachter (1980), purely biological models are "already capable of revolutionizing our understanding of the nature of a presumably psychological or social phenomena" (p. 132; the two main examples Schachter offered for this observation were smoking and alcoholism).

The research on which these ideas are based is laboratory bound. I argue in this paper that models of addiction have failed precisely because they have ignored social-psychological dimensions of behavior, as revealed most clearly by naturalistic studies (Peele, 1985). I propose further that the internal-external, set-point, and nicotine-regulation models mirror broader trends in social psychology, trends which downplay the ability of individuals to modify their own behavior according to their intentions, conscious awareness of their environments, and social settings. Psychological theories are influential in shaping our images of humanity. The models discussed in this paper have vast implications for our understanding of the sources of behavior, for how we attack social problems as a society, for how we attempt to remedy individual behavioral problems (such as smoking or eating too much), and for our conception of what being human means and our belief about the goals to which individuals and societies can aspire.

Social Psychological Models of Smoking and Eating Behavior

Schachter and his students presented results from several experiments in the 1960s showing that normal-weight people ate when hungry but obese people were unable to determine when they were full and relied instead on external cues to tell them when to eat (Nisbett, 1968; Schachter, Goldman,

and Gordon, 1968; Schachter and Gross, 1968). Schachter (1971b) then explored similarities between the behavior of obese humans and ventromedial-lesioned rats, leading Schachter and Rodin (1974) to an expanded externality model of obesity that proposed that overweight humans (and rats) were hyperemotional and hyper-responsive to immediate stimuli of all kinds, and not just food. Eventually, Rodin (1980, 1981) rejected the internal-external model, primarily because there were internally and externally responsive eaters at all weight levels. While recognizing that a range of factors influence eating behavior, Rodin sought mainly to identify neurological mechanisms that might account for "arousal-related overeating without relying on psychodynamic factors" (1981, p. 368).

The set-point model was developed by another Schachter student, Richard Nisbett, who had been exploring parallels between human and animal obesity and physiological mechanisms in overweight. Nisbett (1972) proposed that the hypothalamus is set to defend a given body weight established for each individual by heredity and/or feeding during childhood. The set-point hypothesis has been extremely influential both in obesity research (cf. Stunkard, 1980) and in popular conceptions about overweight (cf. Bennett and Gurin, 1982). Polivy and Herman (1983) eventually suggested that people may get their weight below its set-point-determined level through conscious restraint of eating but that this is an inherently unstable and ultimately futile resolution of overweight.

Although Schachter endorsed both the set-point and restrained-eating models (cf. Bennett and Gurin, 1982, p. 44), he disengaged from eating experimentation in the 1970s to turn his attention to research on smoking behavior in which he initially replicated earlier designs from his work on obesity. For example, he found smokers were less willing to tolerate shocks than non-smokers, the same difference his team found between obese and normal-weight subjects. Smokers were also more distractible when nicotine-depleted, another difference that held between obese and normal-weight subjects. Obese subjects ate more when fearful and tense (Schachter et al., 1968), similar to findings that smokers smoke more under such conditions (Gilbert, 1979). Yet, whereas Schachter conceived the externality of the obese as a seemingly inbred constitutional factor, he viewed continued cigarette smoking as an acquired dependence on nicotine. What was constant in both lines of research was the idea that behavior was almost entirely biologically or pharmacologically determined, and that smoking and overeating were not responses to psychological forces.

The Regulation of Calorie and Nicotine Intake

The set-point and nicotine-regulation models explain human behavior in terms of the need to keep food (or calorie) and nicotine intake at a constant level. Evidence supporting these models includes the short-term regulation

of cellular nicotine in experimental studies of smokers and the tendency, over periods of months and years, for humans to return to a constant weight level. Arrayed against this evidence are findings, which I present and discuss below, that nicotine regulation, even in the laboratory, is variable and influenced by nonpharmacological factors; that weight levels and eating do respond to environmental factors; that over the long term, weight and smoking do vary considerably and that, in particular, people have a strong tendency to cease smoking and to eliminate overweight. The set-point and nicotine-regulation models also do not consider such nonpharmacological and nonbiological relationships as that between social class and obesity and the high correlation between smoking and other substance abuse and health-risk behaviors.

Schachter (1977) found that heavy smokers presented with cigarettes containing less-than-accustomed amounts of nicotine smoked more cigarettes, confirming earlier findings that smokers regulate their intake of nicotine to keep their plasma nicotine levels constant. However, other research has shown nonpharmacological considerations are essential to understanding smoking behavior and nicotine intake. For example, nicotine administered directly (through injection or orally) does not have nearly the impact that inhaled nicotine does for habitual smokers, who continue to smoke even when they have achieved their accustomed level of cellular nicotine via capsule (Jarvick, Glick, and Nakamura, 1970). This may be why this type of research has found smokers' regulation of nicotine levels to be inexact and only approximate (McMorrow and Foxx, 1983; Schachter, 1977). As Leventhal and Cleary (1980) noted, Schachter himself found that a 77% reduction in nicotine content produced only a 17%–25% increase in cigarette consumption.

Leventhal and Cleary also suggested that Schachter's model assumes "a direct and automatic step from changes in plasma nicotine level to craving and smoking" (p. 390) without considering any other intentional or situational factors that might intervene. As an example of such a factor, Schachter (1978) himself remarked that Orthodox Jews regularly gave up smoking "without a qualm" on the sabbath. This observation might seem to introduce the entire realm of competing values and motivations in smoking behavior, including those which eventually cause many smokers to quit. Schachter did not pursue this discovery, however, since, for him, smokers' pharmacological addiction means they will undergo intense discomfort from any diminution of their nicotine intake and will ceaselessly strive to regain habitual nicotine levels, or else suffer intense discomfort from the failure to do so. For Schachter, in this work on nicotine regulation, it would seem that no one could ever comfortably forgo habitual smoking. In the following passage, he graphically described what might be the result of efforts to quit smoking:

When a large portion of an addicted population is attempting to quite smoking . . . , a very large number of people in that population will be in withdrawal. Given what we

know of withdrawal, this means large numbers of people simultaneously in a state of irritability, irascibility, short temper, and so on. One could with reason anticipate high rates of divorce, assault, and general mayhem in such a population. (1980, pp. 156-157)

Actually, there is little evidence that avoidance of withdrawal is a major motivation for the continuation of smoking, since smokers frequently quit only to relapse long after they have endured peak periods of withdrawal distress (Bernstein, 1969). When nonsmokers (along with other former addicts) do relapse, they rarely do so because of sensations of physical discomfort. Instead, relapse most often results from emotional tensions and environmental pressures and former addicts' subjective reactions to these (Marlatt and Gordon, 1980). It is for this reason that blue-collar workers are better able to quit smoking when they are middle-aged, when they report experiencing less tension in their jobs (Caplan, Cobb, and French, 1975). In the naturalistic study in which he later was to discover that nearly two-thirds of those who had ever tried to quit smoking had succeeded, Schachter (1982) himself found no difference in remission rates for heavy and light smokers, although in earlier work he had claimed that those heavily addicted should be least able to overcome their need for their regular nicotine levels.

The surprisingly high percentage of formerly overweight respondents Schachter discovered had undergone an average weight loss of 35 pounds, which they had maintained for an average of 11 years. This finding is, of course, strong evidence against the set-point theory, which likens efforts to reduce weight levels to undergoing voluntary starvation. Indeed, Polivy and Herman (1983) described weight loss to be almost a physical impossibility, since "for the foreseeable future, we must resign ourselves to the fact that we have no reliable way to change the natural weight that an individual is blessed or cursed with" (p. 52). These authors actually discussed Schachter's findings of "relatively common" remission in obesity, but attributed this result to the fact that most respondents in the Schachter research were not at their set-point when they had been obese. In this case, the question is why their weight rose above set-point in the first place. And is it really true that those with "nonset-point" overweight find it easier to lose weight than those whose obesity is "natural"? Polivy and Herman presented no data to this point; in the Schachter study, remission from obesity was equally likely for those who had been 30% and more overweight and those only 15% overweight.

Rodin (1980, 1981), while sympathetic to biological interpretations of obesity in general, rejected the set-point theory on the grounds that those who lost weight were *not* more responsive to food cues than others (Rodin, Slochower, and Fleming, 1977). The original internal-external model research showed overweight people to be more responsive to external cues in eating, and Rodin and Slochower (1976) found that externally responsive subjects put on more weight than others in a food-rich environment. However, those hyper-

responsive subjects who had been of normal weight before entering this environment also displayed a tendency to lose this added weight when they returned home. The sensitivity to external cues of many who became overweight and their resulting fluctuation in weight level contrasts with the idea that people adhere to a strict weight range based on internal biological mechanisms.

Both immediate social influences and background social attitudes have been shown to have a strong impact on an individual's weight. Garn, Cole, and Bailey (1979) coined the phrase "cohabitational effect" to describe the strong family-line resemblances in weight levels they found in family members whether or not – or no matter to what extent – they were related biologically. Community and epidemiological studies have also repeatedly demonstrated that social class and ethnicity are major factors in obesity (Garn, Bailey, and Higgins, 1980; Goldblatt, Moore, and Stunkard, 1965). Such social differences in weight are often enormous: Strunkard, d'Aquili, Fox, and Filion (1972) found girls from lower-SES homes were nine times as likely to be obese by age six as girls from upper-class homes. Social class differences appear in other health behaviors in addition to smoking and overeating. The tendency toward excessive consumption also bridges specific substances for the same individuals. For example, smoking and consumption of caffeine and alcohol are correlated, especially at the highest levels of consumption (Istvan and Matarazzo, 1984). Appetitive behavior is more than pharmacologically bound, since drinking, smoking, and drug-taking are also related to risk-taking behavior other than substance use, such as buckling automobile safety belts (Mechanic, 1979).

Since Polivy and Herman (1983) suggest childhood obesity as the mark of true set-point obesity, such findings have important implications for our views on the maintenance of overweight. The relationship between social background and overweight disputes set-point notions, however, by finding social differences – almost by definition – not to be permanent. Stunkard and his co-workers found those from ethnic groups with heightened tendencies toward overweight approximated ordinary weight levels the more they assimilated and adopted middle-class American values. Garn, LaVelle, and Pilkington (1984) observed that family-line resemblances disappeared the longer family members lived apart, approaching a statistical limit of zero correlation. Indeed, large-scale, long-term epidemiological studies emphasize the impermanence of weight as an individual characteristic. Garn, Pilkington, and LaVelle (1984), measuring 2575 individuals over two decades, found a strong regression to the mean effect – those who were most lean initially showed the greatest weight gain and those most obese typically showed the greatest weight loss.

Longitudinal and survey studies reveal substantial tendencies for people

to overcome obesity: Garn, Bailey, and Cole (1980) found that over half of initially obese men (although only 20% of obese women) were no longer overweight when measured a decade later. Combined with evidence of large-scale remission in smoking (Pierce, Fiore, Novotny, Hatziandrev, and Davis, 1989), such data suggest a substantial human tendency toward the elimination of excessive and self-destructive patterns of behavior. Clinical observations, on the other hand, have found that most therapy patients do not achieve long-term weight loss or cessation of smoking (Leventhal and Cleary, 1980; Wing and Jeffery, 1979). This difference may have to do with the nature of therapy-seeking populations. In the Schachter study, those who never attended therapy for overweight had a higher remission rate than those who had, leading Schachter (1982) to suggest that therapy may be counterproductive to overcoming these appetitive-addictive conditions.

Interviews with former heroin addicts and alcoholics who have quit addictions without the aid of therapy often reveal that addicts resolve to change their lifestyles and develop personal strategies to do so (Biernacki, 1986; Tuchfeld, 1981). Few data are available on the subjective experience of smokers and the obese who have attained remission on their own. Schachter (1982) did not report the methods his respondents used to change their behavior. However, in a brief side-bar to a report on the Schachter study in *Psychology Today* (Gerin, 1982), an editor reviewed the original interviews for such methods. The prototypical response for ex-smokers was "I decided to stop." And, although the formerly obese gave a wider range of explanations for their success, most of their descriptions amounted simply to eating less high-calory food and less food overall.

These descriptions do not prove that respondents found it easy to change their behavior. But they do suggest that people can often bring their behavior into line with strongly-held values, even when this means defying impulses to maintain high caloric or nicotine intake levels. This would seem to be the case with the Orthodox Jewish smokers observed to regularly abstain from smoking on the sabbath. Something similar may have been operating in the Rodin and Slochower (1976) study, where hyper-responsive girls of normal weight at first gained poundage in a camp where food was abundant, but managed to lose much of the weight even before leaving the camp. As Rodin (1981) noted, "these data suggest that other factors may be more important than external responsiveness in influencing the final levels of body weight attained" (p. 364). These girls seem eventually to have learned how to control their eating patterns at camp because they wanted to be a certain weight. Rodin would be unlikely to summarize the data in exactly this way, however, since she finds the idea of conscious restraint of eating to be "only a descriptive term and not a mechanism" in eating and overweight. However, intentional and social factors often appear to be essential for understanding

appetitive-addictive behaviors and their modification, even if the set-point and nicotine-regulation models refuse to acknowledge such factors.

Recent Research in Relation to Larger Trends in Social Psychology

Reductionist models of overeating and smoking predate the research of selected social psychologists, of course. What is noteworthy is how social psychology has failed to bring social and psychological factors into focus when examining these behaviors. Social psychologists have been prominent opponents of purely biological or pharmacological explanations of addiction and alcoholism (cf. Chein, Gerard, Lee, and Rosenfeld, 1964; McClelland, Davis, Kalin, and Wanner, 1972). In the case of alcoholism, the division between social-psychological and disease views has created an almost war-like state (Peele, 1984a). This tension has not been present in the social-psychological study of smoking and obesity. That social psychologists conducting research in these areas accept mainstream reductive assumptions about eating and smoking behavior suggests that the set-point and nicotine-regulation models may offer basic insights into the direction of social psychology as a whole.

Veterans of the heady period at the turn of the half-century when Kurt Lewin and Henry Murray were the dominant figures in social psychology often regret developments in the field since that era (Cartwright, 1978; Katz, 1978; Kelley, 1980; Pepitone, 1981; Sarason, 1981), including the failures to consider the larger social unit and conscious intention in behavior, and the over-reliance on experimental research designed to permit convenient statistical analysis. In the area of obesity and smoking, experimental and field research often give entirely different views of behavior. Findings of social causality, of the relationships among health behaviors, and of natural remission are unlikely in the laboratory. For example, physician Albert Stunkard's (1976) shift in emphasis from social class to physiological sources of obesity coincided with his shift from epidemiological to experimental research. The contemporary field research of physical anthropologist Stanley Garn exists in total isolation from the laboratory investigations that shape current views of obesity (cf. Stunkard, 1980).

On the basis of their externality experiments, Schachter and Rodin (1974) declared: "almost any fat person can lose weight; few can keep it off" (p. 1). Rodin (1981, p. 361) repeated this sentiment. (Although Rodin's subsequent research was not limited to the laboratory, it was extremely limited in time frame.) Schachter's (1982) study of obesity over the life span, on the other hand, found long-term weight loss to be a common occurrence. This same dichotomy in results occurs with the divergent research perspectives on drug use. Under laboratory conditions, addicts may appear to be totally wed to their drug of choice. However, studies of the natural history of drug addic-

tion and alcoholism have found both that substance use varies substantially from time to time and that most alcoholics and addicts quit their habits for good (Cahalan, 1970; Maddux and Desmond, 1981; Nurco, Cisin, and Balter, 1981; Vaillant, 1983). Such anomalies led one biologically oriented researcher to announce perplexedly:

The foundation is set for the progression of the alcohol dependence syndrome by virtue of its biologically intensifying itself. One would think that, once caught up in the process, the individual could not be extricated. However, and for reasons poorly understood, the reality is otherwise. Many, perhaps most, do free themselves. The withdrawal process, and the associated desire and drive to drink, collide with the totality of the individual and the whole of life. (Gross, 1977, p. 121)

Sometimes, anomalous views of human behavior collide within the same study and the investigator is forced to choose one version of "reality." In their study of the effects of manipulating the clock time apparent to obese and normal-weight subjects, Schachter and Gross (1968) predicted the obese would eat more when they believed it was later, while normal-weight subjects would eat the same amount no matter what time they thought it was. In fact, normal-weight subjects ate less when they thought it was later, apparently because — "aware they would eat dinner very shortly" — they were "unwilling to spoil their dinner" by filling up on the crackers the experimenters offered them (Schachter, 1968, p. 754). One might decide this was a significant aspect of the eating behavior of those who are not fat, the kind of eating restraint that may be passed along through social background or that overweight people must learn in order to lose weight. Yet Schachter (1971a, p. 96) dismissed this finding as the "spoil dinner artifact," maintaining that only the eating of the obese is cognitively influenced (albeit in a faulty way).

Nisbett (1968) examined how prefeeding subjects in an experiment would affect their reactions to better- and worse-tasting food. He found that both obese subjects and subjects who were formerly obese over-reacted to the prefeeding by eating *more* food later. Nisbett felt that "the theoretical and practical consequences of these data on the formerly overweight are considerable." Since the obese responded "to food and eating in ways which are enduring," even after they had lost weight, Nisbett concluded that "the long-range prognosis is very poor" for the obese (p. 116). This is, of course, the idea underlying set-point theory. On the other hand, it could seem a strange deduction — on the basis of finding that subjects overate under conditions of experimental forced feeding — to decide that the obese are doomed to overeat forever. After all, the formerly obese subjects had demonstrated by their actual weight loss that they were able to regulate their behavior in a desired direction over a considerable period of time outside the laboratory.

The notion that laboratory behavior is somehow "truer" than other ex-

pressions of human nature traces back to developments in social psychology in the 1950s, and particularly to the formulation of the research ideal of experiments in which extraneous influences are controlled in order to observe the impact on behavior of carefully calibrated variables (Festinger, 1953). This approach marked a distinct departure from the Lewinian research model combining laboratory and field observations of global variations in behavior. Stanley Schachter was to play a seminal role in these research developments, through his early work on group influences on attitudes (Festinger, Schachter, and Back, 1950; Schachter, 1951), his studies (Schachter, 1959) on affiliation (which found that people sought the company of others under conditions of arousal and uncertainty), his classic work on the labeling of arousal states as emotions based on convenient if misleading social cues (Schachter, 1964), and his view of obesity as a reliance on external cues to determine when one is hungry and should eat.

The Schachter experiments were typical, if extreme, examples of the belief that keeping subjects off balance produces more valid results. For example, in Schachter and Singer's (1962) evocation of drug reactions, subjects who were misled about the effects of a drug injection picked up the mood of a paid experimental stooge with whom they were closeted. Such studies were not ones in which subjects had the opportunity to develop reasoned responses to familiar dilemmas or, certainly, to manipulate their environments as to be able to control their outcomes. As a result, behavior in these experiments appeared highly malleable, where people seemed in the throes of forces they were little aware of and even less able to control. This fundamental disbelief in people's ability to enact courses of action based on conscious goals and the processing of available information carried over to Schachter's (1968) and Nisbett's (1968) work in obesity and later research.

Nisbett and Wilson (1977), for example, examined data from several key social-psychology experiments and noted that subjects were rarely able to identify the experimental manipulations that prompted their behavior. Nisbett and Wilson (1977) and Nisbett and Ross (1980) created a basic model of human functioning out of this view that cognition is inescapably after-the-fact, suggestible, inaccurate, and impotent. Yet this conclusion stems from experiments designed specifically to be as noncommonsensical and as indecipherable by subjects as possible. Rather than detecting anything fundamental about human conduct, these psychologists may simply have been reifying into general laws findings that appear mainly under the very specialized laboratory conditions in which they were observed. Nevertheless, the current academic climate seems especially receptive to this point of view. Christensen-Szalanski and Beach (1984) found in their literature survey that studies showing poor judgmental performance were cited six times as often as comparable research indicating that people make accurate judgments; examples of poor judgment

recalled by a group of researchers came invariably from laboratory studies, usually with college students as subjects, while most of the recalled studies of good judgments were conducted in natural settings.

Funder (1987) has argued that social-psychological studies of judgmental processes are not designed to assess actual accuracy of judgment, and that errors measured using artificial stimuli in the laboratory may not comprise faulty judgmental processes in broader social contexts. (Funder points by way of analogy to perception studies that find perceptual errors of the parlor-game variety translate into sound judgmental rules under ordinary observational conditions.) The most oft-cited judgmental error in the contemporary literature is the so-called fundamental attribution error (Ross, 1977), according to which observers consistently over-rate the importance of personality traits relative to situational determinants of behavior. This error has been uncovered regularly in laboratory studies where people judge others they do not know, or who indeed do not exist but are fabricated by experimenters to express a "canned" opinion.

It would seem quite natural in these circumstances that people's reliance on personality attributions should prove misguided. When people have the chance to form relationships and to observe each other over time, however, a sensitivity to the personality characteristics of others could be quite useful (Peele, 1983, 1984b). Funder and Dobroth (1987) reported that correlations between peer and parental assessments of subjects and such subject behavior as delay of gratification regularly achieve the same order of predictive power as do potent situational factors in typical social-psychology experiments. They noted further that industrial psychologists have repeatedly validated relationships between personnel assessments and job performance. Mischel (1984), who has been associated with the view that personality is impermanent and maybe nonexistent, declared on the basis of his research review that people often make quite sound attributions based on complex personality-situation assessments.

Social-Psychological Sources of Behavior and Our Image of Humanity

The fundamental attribution error and other portrayals of human beings as myopic and misdirected may reflect philosophical and moral assumptions as much as empirical results. Prominent and popular thought in social psychology has found people to be unaware of – and thus unable to control – the causes of their actions. This image of the wellsprings of behavior is similar to that which many theorists have proposed to account for obesity and smoking, as well as alcohol and drug addiction. In the latter two cases, the individual is thought to act only in order to maintain alcohol or heroin intoxication. All other motivations are seen to have lost any meaning for

the person, now in an animal-like state (cf. Peele, 1985). From a contrasting perspective, other theorists conceive of addiction as an effort by the individual to modify psychological states and to adjust to specific environmental conditions (Alexander and Hadaway, 1982).

These opposing notions present different images of the human being and can affect how people conceive of themselves and their possibilities for regulating their behavior. Oddly, those most likely to describe themselves as being unable to control their drug or alcohol use and to believe that only medical or biological interventions can "save" them may be those who are most likely to become addicted in the first place (Peele, 1985). The same may hold for obesity and smoking. For example, research with smokers has found that those who believe they have the most internal control over their smoking, regardless of the actual level of their addiction, are better able to quit smoking (Shiffman, 1985). What then is the result of speculation such as the following by Polivy and Herman (1983): "As research progresses, we will eventually be able to imagine . . . biological interventions — even including genetic manipulations" — in order to "change the setting' for natural weight" (p. 52). The emphasis on smoking as a process of chemical dependence (Krasnegor, 1979) leads to analogous proposals that smoking is best quit through nicotine weaning or replacement techniques. Recently, however, Hughes, Gust, Keenan, Fenwick, and Healy (1989) performed a systematic comparative trial between Nicarette (a nicotine gum) and a placebo, and found negligible differences in abstinence rates for smoking between the treatment and control groups at the end of a year.

The idea that addiction is an external form of enslavement that can strike anyone and that medical "operations" are the only possible ways to remove or combat an addiction bespeak a frightening world view, one that sees it as hopeless for people to try to control their own lives or habits. It is doubly distressing to find that these ideas are being presented as if they were the results of scientific investigations when, in fact, the bulk of the evidence runs in a contrary direction — that is, that personal outlook and social setting are the crucial elements in creating and maintaining or fighting addiction. The practical implications of this difference in scientific or public health perspectives are endless. For example, when President George Bush announced (in September of 1989) a multi-billion dollar program to combat overseas drug production and commerce, he found the money for his drug war in such domestic programs as housing and juvenile justice, which are meant to support inner-city residents in their efforts to overcome poverty and the pressure toward criminal life styles. If self-efficacy, and the outlook and environments that make this possible, are crucial to establishing resistance to addiction, then it might seem Bush's policies actually promise to exacerbate addiction rather than to reduce it.

Interestingly, one argument that Bush and his drug czar, William Bennett, frequently make is that they wish to discourage casual drug use as a way to combat addiction. In fact, during his speech, Bush noted that recreational drug use had decreased in the United States while regular, addicted drug use of cocaine had increased over the same period in the 1980s. One mechanism for this decrease in overall usage combined with increased addiction may be that the incessant marketing of the idea that crack is addictive, and that no one can resist or free themselves from its power, is a self-fulfilling one that ensures that a greater percentage of the smaller numbers who try the drug are more likely to believe they will be addicted, and indeed become addicted.

More broadly, psychological theories have implications for our beliefs in the potential of humanity to influence its collective destiny and the best ways for doing so. Zajonc (1980a) described how both native American social psychologists and émigrés from Nazi Germany like Lewin and Heider were “ardently humanistic and liberal” and “believed that the perfectibility of man is not to be found in biological or genetic solutions, but in reason, in education, and in the self-imposed standards of conduct and morality.”¹ At the same time, “they were impressed . . . with the powerful Nazi propaganda machine. . . . Germany was viewed as the product of a massive attitude change – a massive *cognitive* change –” indicating that “the role of cognitive processes in social life must be exceedingly important” (p. 189). Contrast this description with the analysis by Schachter in the same volume (a commemoration of Lewin’s impact on American psychology):

I suspect that the reductionist approach has the potential . . . of providing major insights into problems and areas that have seemed the exclusive province of social scientists and humanists – particularly, I anticipate, in . . . the understanding of aberrant mass phenomena. . . . Has there yet been a psychological, sociological, or historic analysis of Nazi Germany that made this period of human insanity comprehensible? . . . My opinion is based on the truisms that we all breathe the same air, drink the same water, eat similar food, smoke similar cigarettes, and so on. If something biological changes or goes wrong, it can affect all or most of a population. [Schachter proceeds to his analysis on the effects of smoking cessation efforts on a society, recorded above.] (p. 156)

¹The Zajonc case is itself instructive. Labeled as a cognitive psychologist (the reason he was asked to write this review of the Lewin tradition), Zajonc’s laboratory studies have become increasingly microscopic and have dissected human behavior into exceedingly small components. For example, his series of investigations on the “attitudinal effects of mere exposure” claimed to show that people liked best whatever they were exposed to most. Zajonc’s scientific strategy has been that fundamental truths about human beings will be found in the most basic motivational/behavioral elements. Indeed, it is hard to see how his psychology of human beings differs from a psychology of animals, and Zajonc often draws parallels between human and animal behavior. In the logical extension of his views on the primacy of irrational motivations over the importance of reasoned thought (the opposite of the Lewinian anti-Nazi position he describes), Zajonc (1980b) argued that emotions drive thought and that cognition only enters a motivational-behavioral sequence after the fact, in order to explain a preordained reflexive reaction.

In 1962, Henry Murray delivered an audacious address entitled "The Personality and Career of Satan," in which he chided his audience for its "immaculate Scientism." He argued:

The Devil's target . . . [is] the conception of a better world composed of better societies of better persons and . . . [the striving] to actualize it by self-transformations and social reconstructions. In other words, . . . the Satanic aim is to prevent all developments in this direction by shattering man's faith in the existence of the necessary potentialities within himself and reducing him to cynicism and despair. . . . And here is where our psychology comes in with the bulk of its theories, its prevailing views of human personality, its images of man, obviously in league with the objectives of the nihilistic Satanic spirit . . . [leaving] no ground at all for any hope that the human race can save itself from the fatality that now confronts it. (1981, pp. 533-534)

In prevailing views of obesity and smoking and in selected theories of human motivation and cognition, the image of human potential and the view of the sources of behavior are not the unambiguous results of empirical investigations – rather, they reflect and reinforce the perspectives from which the research was conducted. If not scientific in nature, where do these views originate? Murray provocatively evokes religious themes in his critique because the vision of human nature and human action that informs psychology is as open to a spiritual challenge as it is to an empirical one. And, from this vantage point, the Schachter group's work – and all of social psychology – is open to ethical criticism for its derogatory view of the human spirit as being ineluctably passive, fatalistic, and irrational.

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