Special Section

A SOCIOCOGNITIVE ANALYSIS OF SUBSTANCE ABUSE:
An Agentic Perspective

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Abstract—*This article presents a social-cognitive theory of substance abuse. The exercise of self-regulatory agency plays a central role in this approach. Perceived self-efficacy is the foundation of human agency. Unless people believe they can produce desired effects by their actions, they have little incentive to act. Self-efficacy beliefs promote desired changes through cognitive, motivational, affective, and choice processes. Perceived self-efficacy exerts its effects on every phase of personal change—the initiation of efforts to overcome substance abuse, achievement of desired changes, recovery from relapses, and long-term maintenance of a drug-free life. Assessments of perceived efficacy identify areas of vulnerability and provide guides for treatment. Substance abuse is a social problem, not just a personal one. Reducing substance abuse also requires policy initiatives and social remedies achieved through the exercise of collective efficacy.*

This article analyzes substance abuse from the perspective of social-cognitive theory (Bandura, 1986). The exercise of human agency plays a pivotal role in this theoretical approach. Among the mechanisms of human agency, none is more central or pervasive than beliefs of personal efficacy (Bandura, 1997). Perceived self-efficacy is the foundation of human agency. Unless people believe that they can produce desired effects by their actions, they have little incentive to act or to persevere in the face of difficulties. Efficacy beliefs, goal aspirations, incentives and disincentives rooted in outcome expectations, and perceived impediments and opportunity structures operate as the major cognitive motivators and regulators of behavior. Perceived self-efficacy constitutes a key factor in human agency because it operates on motivation and action not only in its own right, but through its impact on other determinants as well. Efficacy beliefs determine the goal challenges people set for themselves, how much effort they enlist in the endeavor, their staying power in the face of difficulties, and how formidable they perceive the impediments to be.

Human agency operates within a causal structure involving triadic reciprocal causation. In this transactional view, internal personal factors in the form of cognitive, affective, and biological events; patterns of behavior; and environmental events all operate as interacting determinants that influence each other bidirectionally. Personal agency operates within a broad network of sociostructural influences. The various forms of these influences affect actions largely through self-processes rather than directly (Bandura, 1997; Elder, 1995). But the self system is not merely a conduit for external influences as structural and biological reductionists might claim. The human mind is generative, creative, aspiring, and proactive, not just reactive. Hence, people are both producers and products of their life conditions. A physicalistic theory of human agency seeks to explain how people come to be producers of thought patterns that exert determinative influence on their motivation, affective states, and actions.

OVERPREDICTION OF PSYCHOPATHOLOGY

Our theories grossly overpredict psychopathology and the inability to overcome substance abuse. This is because they favor a reactive risk model rather than a proactive mastery model. Consider some examples. Forty million people have quit smoking on their own. Ninety percent of the ex-smokers have done so in this way. Because nicotine is an addictive substance, overcoming nicotine dependence is a tortuous process often involving periods of torment and repeated relapses. Smokers who can persevere in the face of repeated failed attempts eventually succeed in quitting. Unfortunately, many cannot without help.

The same is true for alcohol and narcotic addiction. Robins (1974) reported a surprisingly high remission rate for heroin addiction among Vietnam veterans without the benefit of treatment. In other studies, successful quitters severed ties with drug-using friends and built new lives for themselves with meaningful alternative social networks (Granfield & Cloud, 1996). They viewed their drug problems as challenges they could surmount, rather than adopting the identity of a powerless drug user. Supportive resources enabled them to take control of their lives and terminate their addiction.

As Vaillant (1995) has shown, a large share of alcoholics quit drinking without treatment and without any assistance from self-help groups or radical environmental change. Although these types of personal changes are commonly referred to as "natural recovery processes," such successes are better explained in terms of mechanisms of self-regulation than natural occurrence. They testify to the human capacity for self-regulation.

Granfield and Cloud (1996) put it well when they characterized the conspicuous inattention to successful self-regulators as "the elephant that no one sees." The massive elephant in our midst can tell us a lot about the mechanisms of successful self-management and how to enable people to overcome substance abuse.

Full understanding of self-regulatory mechanisms requires examination of successful self-regulators as well as the intractable cases. Naturalistic studies of self-managed change show that successful self-regulators are highly skilled in enlisting the component subfunctions of self-regulation (Perri, 1985). They track their behavior and the cognitive and situational conditions under which they engage in it, they set proximal goals for exercising control over their behavior in the here and now, they draw from an array of coping strategies rather than relying on a single technique, they create motivating incentives to sustain their efforts, and they apply multifaceted self-influence more consistently and persistently than do ineffectual self-regulators. Successes achieved through perseverant effort strengthen belief in one's self-regulatory efficacy, which enables one to stick it out through tough times (Bandura, 1997).

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REACTIVE RISK MODELS VERSUS PROACTIVE MASTERY MODELS

We are more heavily invested in intricate theories for failure than in theories for success. Risk factors command our attention. Enablement factors that equip people with the skills and resilient self-beliefs to exert control over their own functioning and taxing environments receive little notice (Bandura, 1997). When enabling factors are considered, as in research on resilience, they are depicted in static, epidemiological terms as protective factors. Protectiveness presumably shields individuals from harsh realities or weakens their impact. In contrast, enablement equips individuals with the personal resources to select and structure their environments in ways that set a successful course for their lives. This is the difference between proactive recruitment of positive guidance and support for managing one's life and simple reactive adaptation to life circumstances. At the intraindividual level, people are enabled rather than merely buffered by efficacious self-beliefs and competencies.

An agentic view of resilience also differs from the dualistic diathesis-stress model of psychopathology. In this model, external stressors act upon personal vulnerabilities to produce emotional and behavioral disorders. In fact, people play a proactive role in their adaptation; they do not simply undergo happenings in which environments act upon their personal endowments.

The difference in theoretical orientations is illustrated in the use of cue exposure to reduce vulnerability to relapse to substance use. Theories that explain alcoholism and drug addiction in terms of physical dependence have difficulty explaining resumption of substance abuse long after the physical dependence has been overcome. Researchers have invoked situational cues as conditioned motivators. These cues are said to activate physiological cravings that drive people to drink or shoot drugs. Repeated exposure extinguishes the craving.

Former users do not sit passively waiting for cue exposure to extinguish aroused cravings, however. They resort to cognitive and behavioral self-regulatory strategies that help them resist the craved substance. These strategies include self-instruction in delay tactics because the urge to drink subsides over time, using imagery to weaken the urge to drink, visualizing the negative consequences of drinking and the positive consequences of sobriety, and substituting competing activities for drinking.

Monti et al. (1993) compared exposure to alcohol coupled with training in cognitive coping strategies to resist drinking against a standard treatment. The training in cognitive self-regulation with cue exposure increased abstinence. At the end of treatment, perceived self-regulatory efficacy predicted enduring abstinence. Frequency of cravings did not. The differential predictiveness lends greater validity to cognitive self-regulation than to cravings extinction as the mechanism for reducing vulnerability to relapse.

Similarly, in their everyday life, people do not simply react to environmental cues. Through the exercise of self-regulatory influence, they have a hand in which environments they get into, they can create supportive environments for themselves by seeking out beneficial social networks, and they can do things that help them to override desires for addictive substances (Bandura, 1997).

We need to reexamine the construct of craving and to distinguish the desire for an addictive substance that leads one to use it from the strong desire for it as the physiological "high" wears off. The desire for drugs after being abstinent is, in large part, cognitively rooted (Schadel & Mermelstein, 1993). People live in a psychic environment largely of their own making. They "cue" themselves cognitively to all kinds of desires and affective states. Low self-regulatory efficacy and outcome expectations of the pleasurable effects of an addictive substance are strong predictors of urges to use the substance.

MOTIVATORS OF RENEWED SUBSTANCE ABUSE

A major explanatory challenge is resumption of drug use by abstinent individuals after withdrawal symptoms are long gone to serve as motivators. As previously noted, environmental cuing has been proposed as the driving mechanism. In this explanation, exposure to situations that have been associated with drug use induces craving for the substance. Such exposure can be a contributing factor, but this view predicts more than is observed. The 40 million ex-smokers were not insulated from the settings and activities in which they routinely smoked, nor could they avoid the smokers around them.

Negative affect is also widely invoked as the precipitant of relapse (Piasecki, Kenford, Smith, Fiore, & Baker, 1997). This is another factor that requires a self-regulatory component to explain its variable effects. Everyday life is strewn with episodes of negative affect. The 40 million people who quit smoking without treatment are not leading lives free of negative affectivity. They maintain abstinence despite bouts of negative affect. In other dysfunctions, perceived self-regulatory efficacy mediates the behavioral effects of negative affect. In bulimia, for example, negative affect precipitates binge eating often in individuals of low perceived efficacy, but infrequently in those of high perceived efficacy (Love, Ollendick, Johnson, & Schlezinger, 1985; Schneider, O'Leary, & Agras, 1987). Our theories must explain self-regulatory successes as well as self-regulatory failures in the face of inducements for detrimental activities.

Regardless of whether the motivators are environmental inducements, negative affect, pleasurable vivifications, or a life devoid of meaning and purpose or filled with boredom and misery, self-regulatory efficacy will play an influential role in whether the response will be renewed substance abuse or some other form of adaptation.

ROLE OF SELF-EFFICACY IN PROCESSES OF CHANGE

Perceived self-efficacy affects every phase of change in substance abuse—the initiation of changes, their achievement, recovery from relapse, and long-term maintenance of abstinence (Bandura, 1997). Substance users of low efficacy shun treatment or drop out in the absence of quick results (DiClemente & Hughes, 1990; Schimmel, 1985/1986). Individuals who quit successfully by themselves have stronger self-efficacy at the outset than those who do not change and those who relapse (Carey & Carey, 1993). Those of high efficacy benefit more from treatment. They develop self-regulatory skills and mount the effort needed to succeed. Developed through treatment, the perceived efficacy to resist the urge to drink or use drugs in high-risk situations predicts the level of self-control over follow-up periods, regardless of how dependent people had become on the substances (Scholte & Breteler, 1997; Sitharthan, 1989; Sitharthan & Kavanagh, 1990; Solomon & Annis, 1989; Stephens, Wertz, & Roffman, 1995). Perceived efficacy contributes to the prediction of substance use after multiple controls for the influence of sociodemographic factors, withdrawal symptoms, and history and prior level of substance use.

Self-regulatory efficacy at the end of treatment predicts who will relapse, how soon they will relapse, and the situations in which they are likely to experience slips (Bandura, 1997; DiClemente, Fairhurst, & Piotrowski, 1995; Marlatt, Baer, & Quigley, 1995). Efficacy also affects responses to setbacks. Individuals of high perceived efficacy regard a slip as a temporary setback and redouble their efforts to reinstate control. Those of low efficacy view their problem as beyond personal control and abandon further efforts at self-control.

GUIDES FOR TREATMENT

Assessments of perceived efficacy identify areas of vulnerability and provide guides for treatment (Annis & Davis, 1989; Sklar, Annis, & Turner, 1997). If people are to be spared relapses, they must learn how to avoid troublesome situations, develop strategies for dealing effectively with situations that tax their self-regulatory capabilities, and learn how to recover from setbacks.

Self-efficacy assessments also provide a way of monitoring the impact of treatments. Reilly et al. (1995) examined changes in self-regulatory efficacy during different phases of methadone detoxification treatment. Perceived self-efficacy to refrain from opiates increased after methadone treatment was begun, stabilized at a moderate level during a maintenance dose, and declined as the methadone dose was gradually diminished. Perceived self-efficacy predicted subsequent drug use at critical junctures in the treatment after controlling for level of prior drug use. After inpatient detoxification, participants are urged to seek treatment in their communities. Heller and Krauss (1991) found that higher perceived efficacy that one can carry out required self-management activities predicted greater likelihood of entering aftercare activities in the community.

Major personal changes require an enabling subcommunity that promotes the diverse competencies needed to turn one's life around. As Gossop has shown, the significant predictors of whether former opiate users remain drug free are perceived efficacy to manage inducements for drug use, a supportive network of associates, and involvement in purposeful occupational activities (Gossop, Green, Phillips, & Bradley, 1990).

COLLECTIVE EFFICACY FOR SOCIALLY ORIENTED REMEDIES

Our approaches to the treatment of drug abuse are built on individualistic models. We need socially oriented models that provide the social and structural means for transforming drug-dependent lives into productive ones. Multifaceted interventions succeed where individualistic ones have limited success (Bandura, 1997; Mallams, Godley, Hall, & Meyers, 1982; Silbert, 1984). Substance abuse in a nation is a social problem, not just a personal one. Reducing substance abuse requires policy and social remedies for conditions that drive people to drugs.

Social-cognitive theory extends the conception of human agency to collective agency. People's shared beliefs in their efficacy to improve their life circumstances through unified social effort is a crucial ingredient of collective agency (Bandura, 1997). We do not lack sound policy prescriptions in the field of substance abuse and health. What is lacking is the collective efficacy to realize them. Socially oriented research provides valuable guidelines on how to frame policy initiatives strategically, and how to build the collective efficacy needed to accomplish necessary social changes (Bandura, 1997; Wal-

lack, Dorfman, Jernigan, & Themba, 1993). The scope of our research and interventions must be broadened if we are to have much impact on the widespread problem of substance abuse.

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