ALCOHOLISM IN A SHOT GLASS

OTHER ETIOLOGICAL THEORIES OF ALCOHOLISM

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Other Etiological Theories of Alcoholism

In addition to the psychodynamic theories examined in chapter 7, there are many other theories, spiritual, psychological, and neurochemical, that purport to account for alcoholism, that is, to give an etiological explanation for it, or that illuminate some aspect of the inner world, the experience of the alcoholic. This chapter examines some of the most important of these theories ranging from Carl Jung's spiritual account to conflict theories to learning theories to Robert Cloninger's neurochemical tridimensional personality theory to stages-of-change theories. Complex, sometimes competing, sometimes complementary, this array of primarily psychological theory is fascinating. It also has profound clinical implications. As you read, think about ways, if it is possible, to integrate the various theories and consider how you might apply them to clinical work.

CARL JUNG: ALCOHLISM AND SPIRITUALITY

Carl Jung, who broke with Freud and is not usually considered an analyst, had an important, albeit indirect, role in the foundation of Alcoholics Anonymous (AA) and a strong influence on one of its founders, Bill Wilson. It seems highly improbable that Jung, a Swiss psychiatrist whose writings are often obscure, would have influenced an American self-help organization, but

he did. It is an interesting story that has become part of the AA mythology. Jung had treated a patient known in AA literature as Roland H. He was a successful American businessman who had come to Jung for help with alcoholism. He had undergone a seemingly successful analysis with the master himself and left Zurich certain that he had been cured. Roland believed that he had such a deep self-understanding that he would never have trouble with alcohol again. In a short time, however, he returned to Jung drunk and in despair. Jung told him that there was no hope. Roland asked if there really was none at all, and Jung replied that only a major personality reorganization driven by a powerful emotion, in essence a "conversion experience," could save him. Roland left in deep despair, but Jung's words touched something deep inside him and he did what AA would later call "hitting bottom." In his despair he reached out for help and did indeed have a conversion experience, joining the Oxford Movement, which was an upper-middle-class revival movement popular in the 1920s and 1930s. He became and remained sober. The Oxford Movement had a set of spiritual steps that their members followed. These steps became the basis of the famous Twelve Steps of Alcoholics Anonymous. Roland spread the good word to his friend and fellow drunk Ebby Thacker, who also became sober. Ebby in turn went to visit his buddy, Bill Wilson, who was drunk. Ebby told Bill the story of his meeting Roland and joining the Oxford Movement. Bill entered a hospital to dry out. There he experienced some sort of "peak" or mystical experience.

When he left the hospital, he too joined the Oxford Movement, and he remained sober. Bill gradually pulled away from the Oxford Movement, although he borrowed a great deal from it. He began to work with drunks on his own. Shortly thereafter, he joined with another drunk, Bob Smith, whom he helped to get sober, and thus Alcoholics Anonymous was born. Ebby did not make it; he died in Rockland State Hospital of alcoholism. Many years later, Bill Wilson wrote to Jung to tell him the story, and Jung (1961/1973) replied that Roland's "craving for alcohol was the equivalent on a low level of the spiritual thirst of our being for wholeness, expressed in medieval language: the union with God.... You see, 'alcohol' in Latin is 'spiritus' and you use the same word for the highest religious experience as well as for the most depraving poison. The helpful formula therefore is: *spiritus contra spiritum.*"[7]

CONFLICT THEORIES

The three major conflict theories of the dynamics of alcoholism are (a) the *dependency conflict theory*, (b) the *need-for-power theory*, and (c) the *epistemological error theory*. The first theory overlaps and is implicit in the work of most of the psychoanalytic writers discussed in chapter 7. The second was created by a social-psychologically oriented personality theorist. The third is a *cybernetic theory* in which alcoholism is seen as a disturbance in information flow. (Cybernetics is the study of automatic communication and control systems. It is also known as information theory.)

Dependency Conflict Theory

The dependency conflict theory of alcoholism states that alcoholics are people who have not succeeded in establishing or at least maintaining healthy patterns of *interdependence*. This is certainly true. However, this theory also states that alcoholics' failure to establish such forms of adult mutuality is the principal etiological factor behind their alcoholism. This tenet is more controversial. In its naive form, the theory states that alcoholics are socially, psychologically, and often economically dependent people. Holders of this form of the theory cite the openly dependent behavior of many alcoholics. Many alcoholics, however, are not openly dependent, so the naive form of the theory is contrary to fact. It also runs afoul of the fact that the open dependence of some alcoholics might be a consequence of their disease. The more sophisticated form of the theory states that alcoholics are people who suffer particularly acute conflict over how to meet their dependency needs and who have turned to alcohol in an attempt to resolve this largely or entirely unconscious conflict. Holders of this form of the theory believe that dependency needs and the necessity of meeting them in psychologically and socially acceptable ways are inherent in the human condition. It is not dependence per se that is pathological but rather certain ways of being dependent. In this tenet, the dependency conflict theorists are certainly right. As discussed previously, the more sophisticated form of the theory, or a variation of it, has been held by many students of alcoholism, including Blane

(1968), Child et al. (1965), Knight (1937, 1938), the McCords (1960), and Menninger (1938). The more psychodynamic of these theorists twist the screw a turn by pointing out that the conflict is exacerbated by the fact that the alcoholic is often enraged at those on whom he or she depends.

The dependency conflict theory of the etiology of alcoholism is largely based on the observation that alcohol provides a socially acceptable way of meeting dependency needs without appearing to do so. It concludes that people who cannot openly acknowledge their dependency needs, who suppress or repress them, are particularly prone to meet those needs in a veiled manner through alcohol consumption. If they belong to a culture or subculture that sanctions heavy drinking, this is even more likely to occur. In our society, at least until recently, such a denial of the need for the support and love of others has been more characteristic of men than of women. Our society also has tended to be more approving, or at least less censorious, of heavy drinking and even drunkenness in men. Therefore, the dependency conflict theory of alcoholism is essentially a theory of male alcoholism. From the perspective of this theory, alcoholism is a form of *pseudo-self-sufficiency*.

Empirical evidence for the dependency conflict theory has three sources: clinical studies, anthropological studies, and longitudinal studies. The overt social dependence of many alcoholics is often cited as evidence for this theory, but as noted earlier there are difficulties in using this evidence to

support the theory. Clinical evidence is of two kinds: statistical studies using objective measures of various sorts and case studies. Evidence from objective studies is mixed. Most of the psychoanalytic theorists who stress the centrality of dependency conflicts in the dynamics of alcoholism base their conclusions on in-depth case studies. Certainly, such conflicts are often powerfully revealed in the analysis of alcoholics. The clinical works of Blane, Knight, and others support the belief that very intense dependency conflicts are common in alcoholics. Whether such conflicts are etiological is not clear. The anthropological work of Child et al. has already been discussed. As they interpret their data, societies that drink heavily are those that frustrate dependency needs. Whether it can be inferred from their evidence that a similar dynamic is etiological in alcoholism in our culture is problematic. The McCords interpreted the data from their longitudinal study of alcoholism as supporting the dependency conflict theory. Others have interpreted the McCords' data differently. The hypothesis most consistent with their data and with the evidence of rebellious and undercontrolled behavior in prealcoholics is that alcoholism is one outcome of a reaction formation against unacceptable dependency needs, but that not all alcoholism is so motivated. Altogether, evidence for the dependency conflict theory of alcoholism is sufficiently compelling that it cannot be ignored. Apparently there is something about dependence and the conflict about it that is implicated in alcoholism, but exactly what this might be is not quite clear.

Need-for-Power Theory

McClelland et al. (1972) theorized that men drink to feel powerful and that male alcoholics have a particularly strong need to feel powerful. McClelland et al. further specified that the kind of power men seek in alcohol is personal (egoistic) and not socialized; that is, the power is sought for the satisfaction of purely personal needs. McClelland is a professor with Harvard University's Department of Social Relations and has done much interdisciplinary work on the relationship between culture and personality; he is particularly known for his study of achievement motivation. He and his associates have also studied why men drink and the psychological motives for drinking. Their studies cut across cultures and social classes and range from examination of anthropological data to carefully controlled experimental studies. McClelland studied under the personality theorist Henry Murray (1938), who developed a theory of personality that has two main structural components: *need* and *press*. Needs are internal to the organism and may be biological or psychological. Presses are external and come from the environment.

In Murray's theory, the dynamic interplay of needs and presses determines personality. Murray also developed the *Thematic Apperception Test* (TAT), which is a series of pictures about which subjects are asked to tell stories. In response to each stimulus card, the subject tells a story about what

happened, what is happening, and what is going to happen. As is the case for all projective techniques of personality assessment, the underlying assumption of the TAT is that the subject projects aspects of self into the production, be it a drawing as in the Draw-a-Person test, a perception as in the Rorschach, or a story as in the TAT. In Murray's original formulation of the TAT technique, subjects' stories were evaluated in terms of the needs and presses expressed, which were assumed to be characteristic of the personality of the storyteller. The first card on the TAT shows a dreamy boy with a violin. The subject is asked to tell what has preceded the scene depicted, what is happening now, and what will happen. It is assumed that the storyteller identifies with the protagonist and projects his or her conscious and unconscious thoughts, fantasies, feelings, and wishes onto that protagonist. To give a perhaps over-obvious example, the subject who reacts to card 1 by saying, "That boy is a genius. He always loved his violin and his parents sacrificed everything to give him lessons. He grew up and had a brilliant debut at Carnegie Hall. He married his childhood sweetheart and went on to world fame," is different from the subject who responds to the same card by saying, "That boy hated the violin. His mother beat him savagely when he didn't practice. When he grew up, he murdered her. She didn't see the gun because he hid it in his violin case. He was raped in prison and killed himself."

McClelland took over much of Murray's theory and has made extensive

use of the TAT in his research. He has studied the need for achievement and the need for power, breaking down the latter into the need for *socialized* power and the need for *personal* (egoistic) power. An example of a story of socialized power would be, "He [the protagonist in the TAT or folk tale story] went into business and was very successful. In fact, he made millions of dollars and used it to endow a research foundation to find a cure for AIDS." An example of a story of egoistic power would be, "He went into business and was very successful. In fact, he made millions of dollars and used it to put out contracts on all his enemies." The heavy drinkers studied by McClelland tended to tell stories of the second type. McClelland therefore concluded that men drink to feel powerful. More explicitly, they drink to feel enhanced feelings of personal power. These findings are based on an analysis of the folktales of many cultures and on a series of experiments in which subjects were asked to tell stories about TAT cards while sober. They were then offered alcohol and were asked to tell another set of stories after having drunk.

In his analysis of folktales from an extensive compilation of anthropological research, McClelland found a correlation between tribal cultures that drink heavily and cultures that tell stories with personal power themes. In the cultures that had high levels of drunkenness McClelland found that tribesmen experienced conflict between obedience and achievement or autonomy and that the enhanced feelings of personal power induced by

alcohol allowed them to resolve this conflict.

His experimental evidence showed that men who told TAT stories of personalized power while sober were men who drank the most during the experiment and that consumption of alcohol increased the incidence of themes of personal power with a concomitant decrease in themes of socialized power in both moderate and heavy drinkers. On the basis of this evidence—the absence of dependency or oral themes in the sober stories of the heavy drinkers and the absence of an increase in oral or oral- dependent themes with alcohol consumption—McClelland concluded that the dependency conflict theory of alcoholism is wrong, and he proposed a counter theory that men drink to feel personally powerful and that alcoholics are men with a particularly strong need to feel powerful.

McClelland's power theory and the dependency conflict theory are not so far apart. After all, the intense need to feel powerful suggests underlying feelings of powerlessness and to be powerless is necessarily to be dependent. Its ultimate source is infantile helplessness. It is of some interest that Bill Wilson, cofounder of Alcoholics Anonymous, in discussing the "proper form of dependence" used the example of being dependent on electrical power as an example of healthy dependence. It is also noteworthy that the AA "cure" turns on the admission of powerlessness (over alcohol), which would seem to undercut the very motivation for heavy drinking that McClelland

hypothesizes.

Epistemological Error Theory

Gregory Bateson was an anthropologist interested in mental illness who advanced an interesting theory of alcoholism. Bateson, who has also written on schizophrenia, sees mental illness as disturbed communication. In his view, this disturbance in communication is both a cause of mental illness and the essential quality of the illness itself. Communication is essentially the exchange of information, and Bateson was vitally interested in and profoundly influenced by scientific information theory, or *cybernetics*. His principal work on mental illness is titled *Communication: The Social Matrix of Psychiatry* (1951). Bateson was the principal author of the "double bind" theory of the etiology of schizophrenia. The double bind theory asserts that the continuous immersion in "damned if you do and damned if you don't" environments in which covert messages contradict overt ones leads to madness (schizophrenia). Since he drew so heavily on information theory in his studies of psychopathological conditions, it is not surprising that his essay on alcoholism is titled "The Cybernetics of 'Self: A Theory of Alcoholism" (1971).

Bateson believed that the experience of the self as a thing rather than as a process and as set in opposition to a disjunctive world is an illusion or, as he

would prefer to put it, an *epistemological error*. There is no substantial self apart from its world; rather the self is interrelational, the pattern of its communications with its world. Bateson believed that Western culture in particular makes this kind of cognitive or epistemological error in its understanding of self, world, and their interrelationship and that the alcoholic is caught in a particularly intense form of this error. Bateson was interested in the unreflective assumptions, sometimes conscious but mostly unconscious, that people use to "construe" a world. In this view, the human mind is constitutive of its experiences of the world, although one is usually unaware of one's role in shaping that experience. According to Bateson, these largely unconscious assumptions are a cognitive structure that one imposes on experience in an effort to organize and make sense of that experience. This cognitive structure consists of a person's unspoken ontologies and epistemologies (that is, one's understandings of and assumptions about the nature of reality and how one knows that reality). There is a dialectical relationship between one's assumptions about the nature of reality and how one comes to know that reality and how one actually experiences it. Cognitive structures tend to be self-validating, even though they may be wrong; that is, they may distort the data that filter through them.

Here Bateson echoes the philosopher Immanuel Kant (1787/1929), who taught that we are not passive recipients of sense data and information about the world but, rather, active organizers of sense data and data from the

"inner" sense. Knowing is an active not a passive act, and we can only know the world as we experience it, filtered through perceptual "categories of the understanding," rather than as it may be apart from our knowing it. We construct our experience of both self and world. The poet William Wordsworth put it somewhat differently when he said, "The world is half perceived and half created," but he was making the same point. For Kant, the action of the human mind in constituting knowledge is invariant; it is the same for all people. Bateson, however, believed that one's ontology-epistemology is personally and culturally determined. Bateson used the word *epistemology* to denote the whole automatic, reflexive process of understanding experience. Different cognitive structures or epistemologies result in different ways of construing the world. For Bateson the alcoholic suffers from *cognitive error*, from a false epistemology. Instead of being part of a (feedback) loop, the alcoholic gets looped.

What is the nature of this epistemological error? It is the error, first promulgated by the 17th century philosopher Rene Descartes, that there is a subject, the "self," that knows an object or objects "out there." It is a radically disjunctive way of viewing human experience. In Bateson's view, this error leads to a disjunction between self and world that does not really exist. For him the "real" reality is a feedback loop in which information, or in his words, "transformations of differences," flows, and self and object are nodal points in that flow, mutually interactive and mutually interdependent. The radical

disjunction of self and world predisposes one who lives by this epistemology to *objectify* (that is, to treat as objects) both the world and the people in it. This results in an attempt to totally control the world and the objects in it, as if destruction of the objects would have no effect on the destroyer since they have nothing to do with him or her. This leads to a kind of sadomasochistic relationship with the world. It is also a kind of pseudo-self-sufficiency.

An interactional, information-flow model of reality simultaneously connects knower and known and makes the known a center of independent, or better interdependent, initiative and does not lend itself to efforts at omnipotent control. It contains less epistemological error. According to Bateson, the sober alcoholic does not construe the world in this way, and alcohol offers a corrective to his or her epistemological error. Alcohol breaks down the barriers between self and world, here experienced as an object to be exploited, and reestablishes the alcoholic's interconnection with and interdependence on that object. In other words, alcohol dedifferentiates self and object representations. If such differentiations are too rigid, if the ego boundaries are too impermeable, the alcohol will be corrective. In Bateson's view, no matter how regressive the psychological consequences of this pharmacological process are, they result in a world picture that in some sense is more true or correct in that it allows the alcoholic to experience him or herself as "a part of' rather than "apart from" the world. Alcoholism is then an attempt to correct an epistemological error. Unfortunately, the

pharmacological qualities of alcohol are such that the attempt is doomed to failure. Like all other attempts to self- medicate with alcohol, the "cure" ultimately exacerbates the "illness" and the alcoholic winds up more disjunctive, more cut off from world and fellows than he or she was before drinking.

Bateson is fascinated with AA and its Twelve Steps, which he sees as a noninjurious mode of correction of the alcoholic's false epistemology. Since drinking is here seen as a corrective to a deficient sobriety, the state of being of the sober alcoholic must be modified if that sobriety is to endure. Bateson argues that AA does just that by inducing an epistemological shift toward *complementarity* (the state of being in which disjunctive power relations are replaced by communicative interactions) through the "surrender experience" and the AA ideology in general.

LEARNING THEORIES

Learning theory asserts that alcoholism, like all human behavior, is learned. It is one of the more "scientific" parts of psychology, its principles are empirically based and have been verified many times. It is a "hard" science in ways that the more speculative parts of psychology are not. Learning theory teaches that people learn in three principal ways: by *classical conditioning*, by *instrumental* or *operant* conditioning, and by *social learning*, or *modeling*.

Classical Conditioning

Classical conditioning is the pairing of an *unconditioned stimulus* with a *conditioned stimulus* to produce a *conditioned response*. An unconditioned stimulus produces an unconditioned response; for example, in dogs the smell of meat, an unconditioned stimulus, is followed by salivation, which is an *unconditioned response*. The connection between an unconditioned stimulus and an unconditioned response is biological. It is prewired. If we pair another stimulus, say the sound of a bell, with the meat, after many such pairings a dog will salivate when the bell is rung, even in the absence of the meat. The bell thus becomes a conditioned stimulus and the salivation following it a conditioned response. The connection between a conditioned stimulus and a conditioned response is not innate or biological; it is learned.

This famous example of classical conditioning was first demonstrated by the Russian psychologist Ivan Pavlov (1927) whose experimental work led him to discover classical conditioning and its laws. Since unconditioned responses are built-in biological givens and since drinking alcohol is not an unconditioned response, it is probable that classical conditioning does not play a central role in the development of alcoholism, although animals that salivate at the sound of a cocktail shaker are not unknown. Drinking alcohol can, however, be paired with an unconditioned stimulus (say, food) and become a conditioned stimulus for consummatory behavior, which is an

unconditioned response of a hungry animal to food. Now alcohol acts as a conditioned stimulus, and drinking has become a conditioned response. In other words, the drinker has learned to drink when hungry.

Classical conditioning is used in a form of treatment for alcoholism known as aversive conditioning or *aversion therapy*. This treatment pairs a punishment, such as an electric shock, with drinking, and alcohol becomes the conditioned stimulus for the anticipation of pain. As long as the association holds, it is unlikely that the alcoholic will drink.

Instrumental Conditioning

Instrumental, or operant, conditioning is different from classical conditioning in that it does play a central role in the acquisition of excessive appetite for alcohol. Operant learning is based on the fact that actions that are pleasurable tend to be repeated. If an action is reinforced (that is, rewarded in some way), its frequency will increase; if it is punished, its frequency will decrease. As learning theorists say, behavior is controlled by its consequences. Consequences that lead to greater frequency of a behavior are *reinforcers*. Behavior that is instrumental in producing reinforcement is said to be reinforced—hence the term *instrumental learning*. An operant is a spontaneous behavior. It is what is operated on by reinforcement or its absence—hence the term *operant conditioning*. Just as classical conditioning

theory is associated with Pavlov, operant conditioning theory is associated with B. F. Skinner (1938). Skinner is best known for his experimental work on learning, particularly on the relationship of different schedules of reinforcement to changes in behavior.

Anxiety reduction is reinforcing, and for some people, alcohol is particularly effective as an anxiety reducer. For them, drinking alcohol is highly reinforced. *Avoidance learning*, or learning to escape from a painful situation, is particularly persistent; that is, it is very well learned. An action (operant) that leads to escape from an aversive situation such as tension is said to be *negatively reinforced*. Cessation of pain or discomfort is a negative reinforcer. A negative reinforcer is not a *punisher*, which increases rather than decreases discomfort; the two terms are often confused. Punishment reduces the frequency of a behavior, but the punishment—the adverse effect—must follow immediately for the punishment to be maximally effective in reducing the frequency of the behavior. The punishing sides of drinking—the hangovers, the adverse health consequences, the social disapproval—are delayed, to the next day, the next month, or even the next decade. Quick pleasure and remote pain make for increased frequency of an action. This is exactly what can happen to drinking behavior.

All kinds of events can be paired with anxiety or another adverse state and thus become occasions to drink. Both classical conditioning and what is

called *stimulus generalization* play a role here. For example, first you reach for a drink only when the boss yells at you (anxiety followed by anxiety reduction); then you drink when anybody yells at you; then you drink if there is an increase in volume in any verbal exchange; then you drink if the boss walks into the room; then you drink if you *think* about the boss coming into the room. In this way, many things can become *drink* signals. Alcoholics are usually unaware of the events that serve as drink signals for them. Consequently, an important function of the alcoholism counselor is to help make the alcoholic aware of environmental and inner drink signals so that other, less harmful actions can be taken to reduce the dysphoria induced by the drink signal.

Another principle of instrumental learning theory is the notion that *intermittent reinforcement* leads to persistence of a behavior. If a rat is randomly reinforced by a food pellet for pressing a bar, the rat will go on pressing the bar long after the last reinforcement. Psychologists say that behaviors that have been intermittently reinforced are highly resistant to *extinction*. Just as the intermittently reinforced rat goes on pressing the bar, the intermittently reinforced alcoholic goes on drinking at the bar. For the alcoholic, drinking may once have been highly and regularly reinforced—it always felt good, it reduced guilt, it raised self-esteem. Then drinking became only irregularly (intermittently) reinforced, and finally, not reinforced at all; for the alcoholic, there is no longer cessation of pain, let alone more positive

pleasure in drinking, yet the drinking continues. The expectation of positive pleasure or anxiety reduction from the glass dies hard; it had been intermittently reinforced both positively (it felt good) and negatively (it was an avoidance behavior). Both the intermittence and the avoidance make it highly resistant to extinction. This explains much seemingly senseless alcoholic behavior.

Whether alcohol is reinforcing, exactly what is reinforced, for whom it is reinforcing, and under what circumstances it is reinforcing are far from clear. There is much controversy among learning theorists about these issues, including the effectiveness of alcohol as a tension reducer. It may be that alcohol reduces self-awareness, which can be extremely painful, and that this reduction is the reinforcer, or that it reduces tension in a conflict situation but not in others. In a famous experiment, Masserman and Yum (1946) gave cats a shock when the cats approached their food boxes. This induced an intense approach-avoidance conflict; it made the cats neurotic, crazy. The experimenters then laced the cats' milk with gin and continued to shock them when they tried to eat. The "high" cats approached the food box with much less conflict than they had when sober.

It has become increasingly clear that thoughts, expectations, beliefs, and labels play an important part in learning. Behavior is not just a matter of stimulus and response. Intervening events, cognitive events that are mental

contents, play an important part in human learning. If a person believes that alcohol gives pleasure, reduces pain, or increases status, he or she is likely to drink it. How one labels an event is important. If drinking is labeled sinful, a different behavior results than if it is labeled "cool" or, at the very least, the same behavior will arouse different feelings.

Modeling

Social learning theory teaches that other people's behavior is a powerful influence on us. We model our behavior after them. Social learning theory was elaborated by Bandura and Walters (1963). Our culture, the media included, provides numerous models for drinking, including excessive drinking. People model their behavior accordingly. Sobriety can be modeled too, and one reason that self-help groups such as AA are so effective is that they provide models of sobriety. AA also changes expectations (beliefs) about alcohol. Research validates that a change in social surround powerfully affects drinking behavior. Joining a self help group radically shifts one's social surround, one's reference group, and the effect of doing so is potent.

Tension Reduction and Self-Awareness Theories

The *tension reduction model* of the motivation for drinking was one of the earliest attempts to account for alcohol consumption. It was congruent with popular beliefs and had the support of learning theory. Drive reduction

(with anxiety or tension here conceptualized as a drive) is highly reinforcing and therefore a powerful motivator. Early research (Conger, 1956) seemed to support the notion that alcohol was tension reducing, but later research showed that that was not always the case (Cappell & Herman, 1972). Tension reduction as a single factor theory of why people drink, let alone why they drink alcoholically, proved untenable. Whether or not ethanol is tension (anxiety) reducing is dependent on many factors: expectations (if you believe a drink will reduce tension, it probably will); individual differences; dosage (alcohol in low doses reduces anxiety, high doses increase it); whether blood alcohol levels are rising or falling; social setting, and stage of drinking career (there is evidence that alcohol actually increases tension in alcoholics, at least in an experimental hospital setting). A further difficulty with the theory lies in the fact that for many, the chief motivation for drinking is the anticipation of the initial euphoria (positive affect motivation), not tension reduction (negative affect motivation). Nevertheless, there is no question that ethanol can be tension reducing and that many drink for that effect whether or not their tension comes from prior drinking. Cloninger's (1983, 1987) notion of increased somatic anxiety (body tension) in type 2 male limited alcoholism and increased cognitive anxiety (guilt and obsessive worry) in type 1 milieu limited alcoholics which he believes to be antecedent to the alcoholism suggests that those who later become alcoholic may have that individual variation which accentuates the tension reducing properties of ethanol. This

theory goes against the research evidence that alcoholics initially drank for the positive affect. Reality, however, is complex, and the contradiction may be more apparent than real. People drink for many reasons and some who drink for tension reduction may be prealcoholics, so may some who drink for euphoria, and so may some who drink for both reasons.

The difficulties with the tension reduction hypothesis have led to a sophisticated reformulation of it known as the *stress response dampening* (SRD) theory (Sher, 1987). It states that alcohol dampens the biological stress response and that that is highly reinforcing, increasing the likelihood that the individual will drink if stressed. This will be particularly true if the person sees no alternative way of dealing with the stress. Sher, who does not see his model as a univariate (having only one variable) explanation of drinking behavior, reviews some possible biochemical path-ways by which alcohol may dampen the adrenal-pituitary-hypothalamic stress response and concludes that—social-cognitive factors and the initial increase in heart rate notwithstanding—stress response dampening is a major motivating factor in both social and alcoholic drinking.

Jay Hull (1981) has formulated an interesting theory of motivation for drinking, including pathological drinking, which he calls the *self-awareness model*. He postulates that one pharmacological effect of ethanol is impairment of cognitive functioning, including information storage, and that that

impairment decreases self-awareness. Therefore, in situations in which self-awareness is painful, such as the aftermath of failure, drinking alcohol will be highly reinforcing. Hull concludes that empirical studies support the self-awareness hypothesis as one pathway to drinking. It is easy to see how self-awareness obliviation could lead to a vicious cycle in which a failure results in drinking to blot out painful self-awareness, which in turn results in further failures "necessitating" more drinking *ad infinitum* until alcoholism develops.

Self-Handicapping and Opponent Process Theories

Steven Berglas (1985) has formulated an ingenious hypothesis to explain problem drinking in successful people called the *self-handicapping model*. It states that a successful person who wishes to maintain his reputation for competence and positive self-regard but who anticipates possible failure may drink so that if the anticipated failure should occur it will not have been his fault. After all, what can be expected from a man who happened to drink too much? However, if success rather than failure occurs, then people will say, "What an extraordinary person—he pulled that off half-looped." So the drinking sets up a win-win situation. Unfortunately, the potential for a vicious cycle in this scenario is not hard to imagine; failure becomes more likely as of previous self-handicapping leads to more self-handicapping by drinking and what started as a "game" can easily end in addiction. (According to Berglas, women do not self-handicap with alcohol

since it "won't wash," although they self-handicap by other means, such as premenstrual syndrome [PMS]).

Literary critic Alfred Kazin (1976) has also written of alcoholism among the highly successful, pointing out that five of the seven American Nobel Prize winners in literature have been alcoholic. He relates the American writers' penchant for alcoholism to narcissistic conflict, pointing out the tension between the pursuit of success, the "bitch goddess," and the pursuit of aesthetic excellence.

Opponent process theory (Shipley, 1982; Solomon, 1977) states that any emotional arousal or hedonistic process (such as drinking for pleasure) will engender opposing affects, or an *opponent response*. It is sort of an action-reaction model. Further, opponent process theory postulates that in time the opponent response to the psychic event will become stronger and an opponent process will come to predominate. This model has been applied to many behaviors. In terms of alcoholism, it essentially says that with continued drinking, euphoria decreases and dysphoria (the opponent response) increases. Hangovers become whoppers and drinking to avoid withdrawal symptoms (the opponent process) replaces drinking for pleasure. The opponent process learning theory is a restatement of Rado's (1933) description of the addictive trap (see discussion in chapter 7) buttressed by a neurological-physiological account of the underlying process. According to its

adherents, there is empirical support for opponent process theory. It is one more way of accounting for the vicious cycle that is alcoholism.

TRIDIMENSIONAL PERSONALITY THEORY

C. Robert Cloninger (1987a) has developed a theory of personality that postulates "three independently inherited dimensions of personality that reflect variation in underlying neurogenetic systems" (p. 410). These neurogenetic systems which involve neurological tracts in the brain that use differing neurotransmitters (the levels of which are genetically determined) to mediate synaptic transmission are postulated to mediate novel, appetive, and aversive stimuli. Although the three systems are independently inherited, they influence one another through negative feedback loops so that the level of one affects the significance of the inherited levels of the others. Cloninger does not suggest that personality is totally determined by genetically controlled neurotransmitter levels; on the contrary, he recognizes the influence of learning and environment on behavior and the expression of personality. Rather, his emphasis is on the inheritability of certain tendencies.

Cloninger's three dimensions are: *novelty seeking, harm avoidance*, and *reward dependence*. The relationship between these dimensions, their biological function, their behavioral manifestations, and their mediating neurotransmitters is summarized in Table 8.1 as is their relationship to

drinking behavior.

Table 8.1 Cloniger's Tridimensional Model

Dimension	Biological Function	Behavioral Manifestations	Relation to Drinking
Novelty seeking	Behavioral activation	Impulsivity, exploration, curiosity, fickleness, excitability, quick temper, extravagance, disorderliness, and distractability	High novelty seeking is correlated with alcohol seeking behavior, both of which are correlated with high levels of dopamine.
		Mediating neurotransmitter—dopamine (high)	
Harm avoidance	Behavioral inhibition	Caution, fearfulness, inhibition, shyness, pessimism, fatigability, and apprehensive worry	High harm avoidance is correlated with low alcohol seeking behavior, but with accelerated development of tolerance for and psychological dependence on alcohol, all of which are correlated with levels of serotonin. (High levels of serotonin decrease dopamine activity levels.)
		Mediating neurotransmitter—serotonin (high)	
Reward dependence	Behavioral maintenance	Sentimentality, sensitivity to social cues, helpfulness to others, "people-pleasing", sympatheticness, industriousness, and persistence	High reward dependence is correlated with separation anxiety and vulnerability to abandonment depression and greater release of norepinephrine upon drinking, both of which are correlated with low basal noradrenergic (norepinephrine) activity levels. Norepinephrine circuits are involved in tolerance to the sedative effects of ETOH
		Mediating neurotransmitter—norepinephrine (low)	

Cloninger interprets the Oakland Growth Study (Jones, 1968) discussed in chapter 6 as demonstrating two types of prealcoholic personality, antisocial (type 2) and passive-dependent (oral, type 1), and goes on to cite other data supporting this hypothesis. In terms of his three-dimensions, *type 1*, milieu-limited alcoholics are characterized by low novelty- seeking, high harm avoidance, and high reward dependence, while *type 2*, male limited alcoholics are characterized by high novelty-seeking, low harm avoidance, and low reward dependence. (See chapter 5 for a more detailed discussion of type 1 and type 2 alcoholics.) The neurotransmitters thought to be responsible for these characteristics are identified in Table 8.1.

In a 1988 study, Cloninger and his colleagues hypothesized that this same tridimensional structure of personality would be found in children. They devised measuring instruments that operationalized these dimensions and their presumed relationship to inherited levels of neurotransmitter activity and predicted that deviations from the mean on any of the dimensions would be correlated with (that is, they would predict) adult drinking problems. Using Swedish children who had been put up for adoption but not all of whom were actually adopted and whose ratings on the three personality scales were done by their teachers at age 11, Cloninger et al. found strong correlations on all three scales between deviation from the mean and development of alcohol problems, as manifested in public records of social difficulties and treatment for alcohol problems or both by age 27.

The risk for alcoholism was *exponentially*, not linearly, related to deviation from the mean on the three variables. Those severely high in novelty seeking and severely low in harm avoidance were at the greatest risk of alcoholism. Statistical analysis confirmed the existence of the two types of alcoholism and the model proved to have predictive value, although the level of predictability was low. Cloninger attributes this result to the only 50% inheritability of these traits and to small sample size and low rate of alcoholism in the sample, rather than to a flaw in the model. He suggests that risk for alcoholism is a continuous rather than a dichotomous variable so that studies set up as high risk-low risk analyses are inadequate.

Cloninger's model is intriguing. Unlike the serotonin deficiency hypothesis that was discussed in chapter 6, which was derived primarily from findings of low platelet MAO levels in high-risk children of alcoholics and which is unifactorial and hard to interpret because low platelet MAO is associated with a wide variety of psychopathologies, the tridimensional theory is sophisticated, multifactorial, and closely linked to drinking behaviors. However, its low predictability, with the exception of the high novelty seeking/low harm avoidance cluster, precludes its acceptance as an explanation of alcoholism. At best it suggests some behavioral and neurochemical antecedents, which interact with social, cultural, cognitive, and psychodynamic factors to eventuate in alcoholism. In fairness to Cloninger, he knows this and he deserves credit for conceptualizing the most

encompassing neurochemical model we have of the antecedent risks for alcoholism.

STAGE THEORY

It has become clear during the past decade that talking about addiction and recovery as simple processes does violence to what is actually an extremely complex progression in which people first become addicted and then "decide," if that is the right word, to change their behavior and enter recovery. The realization that people do not just change one day but that fairly predictable sequence of events precedes "hitting bottom" (as AA would put it) has definite treatment implications. The stages-of-change literature grew out of the longitudinal studies of the development and antecedents of adolescent problem behavior by theorists like Jessor (1987), whose work was discussed in chapter 4. Working in the same tradition, Kandel (1975, Kandel, Yamaguchi, and Chen, 1992) traced the development of adolescent drug use and showed that cigarette smoking and beer drinking preceded the use of marijuana, which in turn preceded heroin and cocaine use. Cigarette smoking best predicted illegal drug use in girls and alcohol consumption in boys. Kandel's data seem to affirm the "reefer madness" approach of the U.S. Department of Narcotics in the 1940s and 1950s, which taught that pot smoking ineluctably led to drug addiction. Kandel's data, don't explicitly demonstrate that, of course, but the correlation is there. What Kandel showed

was that the use of "gateway" drugs precedes use of "hard" drugs, which does *not* mean that all, or even a large percentage, of gateway drug users go on to hard drugs. The earlier the children smoked and/or drank, the greater was the likelihood that they would go on to illegal drug use. Parental smoking, drinking, and drug use were highly correlated with those behaviors in their children, again demonstrating the saliency of modeling. Interestingly, Kandel found that the highest correlation of adolescent smoking was with maternal smoking, which suggested to Kandel that a prenatal effect might be present.

The stages-of-change literature evolved out of these developmental, epidemiological studies. The pioneering works were by Prochaska, DiClemente, and Norcross (1992) and Prochaska and DiClemente (1984). They conceptualized change as taking place in five stages: *precontemplation, contemplation, preparation, action*, and *maintenance*. In the first stage, the pleasurable effects of using the drug predominate and the user or drinker does not even entertain the thought of quitting. Why should he or she? After all, he is not crazy and his use is a source of pleasure without pain, or at least any pain experienced is tolerable and nonconsequential. Expectancies play a role here. Thus, if hangovers are accepted as "part of the game" and are experienced as honorific their onset will not lead to change.

In the next stage, contemplation, the aversive consequences have become too insistent to be completely ignored and discounted and the

thought of stopping or at least cutting back is now allowed to enter into consciousness. Although no action is yet actually contemplated, it is at least a cognitive possibility. Retaining clients in the pre-contemplative stage is extremely difficult. Most of the time they are enjoying their drinking and not considering stopping or changing it. The best the clinician can do is to recognize where the client is and not get into a power struggle.

In the contemplative stage, the pleasure-pain ratio has changed, perhaps even reversed, and the client is seriously considering behavioral change (that is, ceasing to drink or drug); however, there is intense ambivalence. The pleasures of use are still highly salient and the client, although willing to consider change, is not yet ready to actually change. The counselor must acknowledge and reflect back the client's ambivalence and minimize his or her (countertransferential) frustration and rage by understanding where the client is at.

In the preparation stage, the client actually considers a concrete plan of action but does not yet carry it out. Then, finally the action stage is reached and change occurs. Unlike the AA model, which tends to envision "hitting bottom" and "surrender" as sudden moments of illumination, the stages of change model sees a long developmental process preceding eventual action. Even AA founder Bill Wilson makes a distinction between Damascus conversion experiences (an allusion to St. Paul's illumination on the road to

Damascus), which are sudden moments of insight, and educational conversion experiences which are gradual and culminative. Wilson, who took the distinction between these experiences from William James's *Varieties of Religious Experience* (1902), suggested that sobriety could come about either way. Prochaska and DiClemente stressed that the action stage involves more than stopping drug use or drinking and that action must include changes that will help maintain sobriety such as a change in peer group or in attitude and expectancies or both. The change process ends in the *maintenance stage*, where the emphasis is on relapse prevention.

Although I have alluded to counselor interventions in the various stages, Prochaska and DiClemente recognized that many alcoholics go through the stages of change without professional contact or treatment. They also point out that *recycling*, with its return to earlier stages, is more common than linear progress and usually occurs before action is taken and the maintenance stage is reached.

Prochaska and his colleagues also have formulated a mathematical model in which perceived pleasure in the use of the drug (such as alcohol) is graphed against time, and so are the perceived aversive consequences of drug use. At the point where the two lines intersect, action will occur. This model is illustrated in Figure 8.1. As neat and compelling as this theory is, it is a little too rationalistic for my taste. I am not so sure that people work so clearly in

terms of pleasure-pain evaluation, that they use what the 18th century utilitarian philosopher Jeremy Bentham (1789/ 1939) called a *felicity calculus*. I have the same reservation about such models as Berglas's (1985) self-handicapping hypothesis of problem drinking by the successful. I doubt that people are that deliberate and I wonder if some sort of factor or force beyond the felicity calculus, such as Freud's (1920) innate self-destructive drive, isn't necessary to account for human, including addictive, behavior. Somehow the unconscious and the self-destructive must be given their place in the sun, or should I say in the darkness. Be that as it may, the Prochaska-DiClemente stages-of-change model does provide us with some conceptual tools for moving away from black-and-white dichotomous thinking to multidimensional process thinking about addiction and recovery, which has the nontrivial advantage of being more congruent with reality. As noted above, the model has numerous clinical implications.

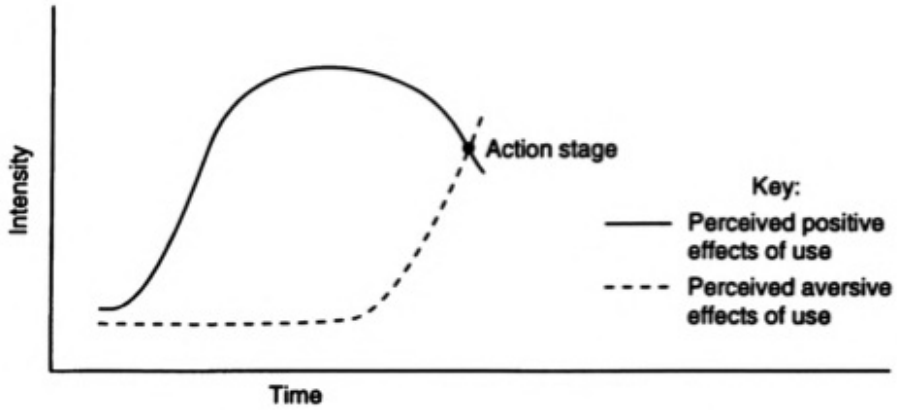

Figure 8.1 Prochaska-DiClemente Stages-of-Change Model.

Howard Shaffer (1992, 1994) elaborated and fine-tuned the stages of change model. Shaffer's *Stage I*: the emergence of addiction has three phases: (a) Initiation: beginning drug use (he points out that you can't get addicted unless you start, but that the vast majority of initiators do not become addicted); (b) The substance use produces positive consequences, which may be pharmacological, psychological, or social; and (c) Adverse consequences develop but remain out of awareness [as he says, "Addictive behaviors serve while they destroy" (p. 324)].

His *Stage 2*: the evaluation of quitting also has three phases: (a) Turning points, in which the user first realizes the connection between use and abuse and profound negative consequences, although this may not lead to any immediate action but rather will begin a dynamic process that may eventuate

in action; (b) Active quitting begins either by tapered quitting or cold turkey quitting as the end result of the dynamic process begun by the turning points; and (c) Relapse prevention. Shaffer stresses the clinical utility of his model especially in reducing countertransferential hate induced by client ambivalence and denial. *Countertransference* has two meanings: in the narrow, technical sense it refers to the counselor's unconscious projection of archaic object relations onto the client (see the earlier discussion of transference); and in the more contemporary usage it refers to all of the counselor's feelings toward the client regardless of their source. I use the term in the latter sense. But this brings us to treatment issues, which are the subject of the next chapter.

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Notes

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