A General Theory of Addictions: A New Theoretical Model

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A general theory of addictions is proposed, using the compulsive gambler as the prototype. Addiction is defined as a dependent state acquired over time to relieve stress. Two interrelated sets of factors predispose persons to addictions: an abnormal physiological resting state, and childhood experiences producing a deep sense of inadequacy. All addictions are hypothesized to follow a similar three-stage course. A matrix strategy is outlined to collect similar information from different kinds of addicts and normals. The ultimate objective is to identify high risk youth and prevent the development of addictions.

Similarities among different kinds of addicts have long been common knowledge. Clinicians have frequently commented on the similarities in backgrounds, course, treatment, and prognosis among persons with different kinds of addictive behavior patterns. Persons suffering from more than one addictive behavior who join a second (or third) self-help group such as Alcoholics Anonymous, Gamblers Anonymous, Overeaters Anonymous, have been quick to notice striking similarities between themselves and members of these presumably disparate groups. Yet, the tendency among scholarly researchers has been to examine each type of addiction as a separate entity, and to attempt to develop a distinct explanatory schema for each (Walker & Lidz, 1983). As a consequence, reports dealing with alcoholism, heroin and other drug addictions, eating disorders, compulsive gambling, and other addictive forms of behavior, tend to be found in distinct literatures with little cross-reference to one another. When this author first proposed and began testing a general theory of addictions in 1980 (using compulsive gamblers as the

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prototype subject) there had been little systematic searching for common denominators among various addictions as a unified class of behavior (Jacobs & Wright, 1980). Indeed, the first concerted attempt to present a systematic analysis of the common elements among different forms of addictive behaviors waited until the publication of "Commonalities in substance abuse and habitual behavior" (Levison, Gerstein, & Maloff, 1983). This book reported the outcome of a series of studies that were initiated by the National Institute on Drug Abuse (NIDA) in 1976. The intent was to gather and evaluate relevant scientific evidence that might indicate the extent to which many aspects of excessive substance use and other habitual activities might have common biological, psychological and/or social roots. In a series of meta-analyses a group of distinguished researchers gathered the scattered literature that might reveal underlying common processes in three areas: sociocultural commonalities, psychological commonalities, and biological commonalities. While a wide range of habitual behaviors were considered, compulsive gambling was not, since "scientific evidence was simply insufficient to warrant intensive committee study" (Levison, Gerstein, & Maloff, 1983, preface). After balancing evidence supporting either similarities or differences among addictive forms of behavior, the editors concluded that, "In general, scientific knowledge does not at present provide the basis for a comprehensive theory of excessive, habitual behavior encompassing the available sociocultural, psychological, and biological evidence" (page XVI). However, they acknowledged that "compelling and useful regularities do arise when researchers are guided by a coherent scientific frame of reference," and encouraged investigators to follow the research directions that emerged from a commonalities perspective.

Despite the guarded conclusions set forth by Levison et al., this author continues to believe that efforts should continue to explore the utility of theory building and testing regarding addictions as a unified class of behavior (Jacobs, 1982a, 1982b, 1984). Four major objectives have guided the formulation of this author's general theory of addiction. The first is to identify common elements that prevail across different classes of addictive behaviors. Secondly, to identify significant differences that emerge when comparing one class of addicts with another. Thirdly, to highlight and further explore puzzling inconsistencies. Finally, to compare known addicts of a given class with a normative sample including abstainers, users and abusers of that class of substance or activity.

The strategy selected for testing the general theory of addictions set forth in this paper is a matrix approach. Comparable information is being collected from populations of compulsive (pathological) gamblers, alcoholics, compulsive overeaters, drug addicts and other groups who are characterized by one form or another of substance abuse or habitual behavior over which

they have lost personal control (Jacobs, Marston, & Singer, 1985). The matrix design also includes normative samples of adolescent and adult populations who have responded to the same basic survey instrument. To the best of this author's knowledge this approach is the first in which a similar set of indices have been collected and compared across different classes of addicts, as well as normative samples. Hopefully, this strategy will facilitate further refinements in theory building. The ultimate goal is to construct descriptive models that will aid in better understanding the addictive process, as well as facilitate early identification and prompt treatment of persons at high risk for developing addictive patterns of behavior.

An Alternate View of the Etiology and Course of Addictive Behavior

Contrary to the position taken by most other workers, this author places primary emphasis on the presence of two interrelated sets of *predisposing* factors that are held to determine whether or not an individual is at risk of maintaining an addictive pattern of behavior. The first of these two sets of predisposing factors is: *a unipolar physiological resting state* that is chronically and excessively either depressed or excited. This lifelong persistent state of either hypo- or hyper-arousal is believed to predispose the individual to respond only to a rather narrow "window" of stress-reducing, but potentially addictive substances or experiences, and to make the person resistive to other kinds of addictive behaviors. The second set of predisposing factors is of a *psychological nature.* These reactions arise from social and developmental experiences in childhood and early adolescence, and convince these persons that they are inferior, unwanted, unneeded and/or generally rejected by parents and significant others. Indeed, this author holds that one of the essential reinforcing qualities that maintains the chosen addictive pattern is that, while indulging in it, the individual can escape from painful reality and experience wish-fulfilling fantasies of being an important personage, highly successful and admired. These fantasy states appear to be of a dissociative character and may take the form of frank fugue states in compulsive gamblers (Jacobs, 1982a, 1984) and in alcoholics and compulsive overeaters (Jacobs et al., 1985).

It is further held that *both* sets of predisposing factors must coexist and be exercising their respective effects before an individual will maintain an addictive pattern of behavior in a conducive environment. Viewed in this light, only a limited segment of the population need be considered at risk for any given addiction. Moreover, even persons in this group may remain latent, *unless* they encounter and perceive the above mix of pleasurable results from a chance triggering event in their daily lives that is of sufficient clarity, novelty, and intensity to motivate them to deliberately arrange future experiences of this type. On the basis of the lawful interaction of these two sets

of predisposing factors, the author proposes that one can *predict* the course of any and all addictive patterns, as they progress through three common sequential stages (Figure 1). The author suggests further that by applying certain assessment procedures one can estimate an individual's relative position in the progression of stages noted above. With such information in hand, it then becomes possible to predict the *level of readiness* of a given addicted person to doggedly cling to or consider rejection of the addicted pattern. All such predictions would consider the facilitating or inhibiting influences of situational factors in the addict's here-and-now environment.

Definitions of Addiction

The Standard Medical Dictionary (Dorland, 1974) defines addiction as "the state of being given up to some habit, especially strong dependence on a drug." Subdefinitions refer to alcohol, drug, opium and (interestingly enough) polysurgical addiction, i.e., habitual seeking of surgical treatment. In the context of this definition four criteria are listed as being characteristic of an addictive state: "(1) an overwhelming desire or need (compulsion) to continue use of the drug and to obtain it by any means; (2) a tendency to increase the dosage; (3) a psychological and usually a physical dependence on its effects; (4) a detrimental effect on the individual and on society." Peele (1977) has proposed redefining the historical biologically rooted term "addiction," so that it may be dealt with in a much broader, measurable, and socially relevant manner. He proposes (1979) that "an addiction exists when a person's attachment to a sensation, an object, or another person is such as to lessen his appreciation and ability to deal with other things in his environment or in himself so that he has become increasingly dependent on that experience as his only source of gratification" (p.56). In an article on alcohol addiction Cummings (1979) makes the point that "addiction is not merely popping something into one's mouth, but a constellation of behaviors that constitute a way of life" (p. 1121-1122). Compulsive gambling has been referred to as the "purest addiction," because no external substance is introduced into the biological system (Custer, 1975).

This investigator's approach to addiction tends to espouse the breadth of Peele's approach, the specificity of criteria listed in the medical definition (but without tying the concept to ingested substances), and Cummings' suggestion that addictive behavior constitutes a way of life. In this author's view, addiction encompasses persistent, out-of-control behavioral patterns involving substances such as food, alcohol, other licit and illicit drugs, as well as activities such as gambling.

The function of virtually any obsessive-compulsive behavior as a defense against experiencing *anticipated pain* is an aspect stressed by Jacobs that has

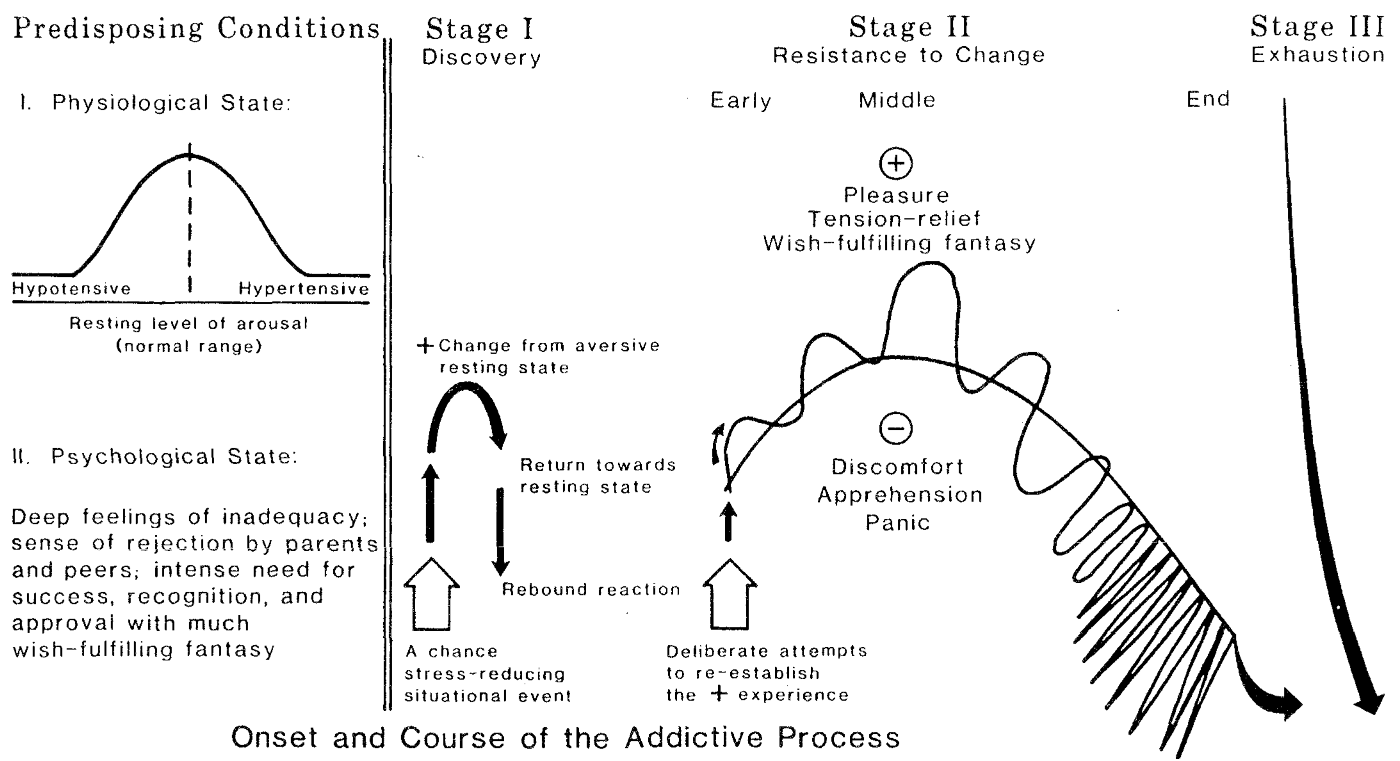

Figure 1. A Working Model of the Addictive Personality Syndrome (APS)

been given far less emphasis in other treatises on addiction. In a recent chapter describing what he has characterized as the "Chronic Pain Personality Syndrome," Jacobs (1980) refers to this syndrome as being comprised of "a tightly knit set of learned behaviors directed to defending the patient against the phobic-like fear that his level of pain *may worsen.*" In Jacobs' view, addiction is basically a double-bind phenomenon which may follow the behavioral paradigm of a complex approach-escape-avoidance mechanism. On the one hand it traps the person into an escalating pattern of immediate gratification through greater and more frequent exercise of the "addicted" behavior. (Also see Donegan, Rodin, O'Brien, & Solomon, 1983). More subtly, on the other hand, the addict's extended personal experience with the painful series of ups and downs during his periods of indulgence (and between them) fuels a growing sense of apprehension that even the most extreme exercise of addictive behavior may not prevent the anticipated catastrophe that he dreads will happen when his addictive source is unavailable, or (inevitably) when it fails to produce its previous positive effects. The anticipated catastrophe referred to has nothing to do with a brief period of painful "withdrawal" that may or may not follow sudden cessation of the abuser's or addict's use pattern. Rather, the author has suggested that the termination or collapse of the addictive pattern precipitates a profound and extended anxiety state of debilitating proportions.

THE ADDICTIVE PERSONALITY SYNDROME (APS)

Predisposing Conditions

Addiction is seen as a dependent state acquired over time by a predisposed person in an attempt to correct a chronic pre-existing stress condition. In some predisposed persons under conducive environmental conditions, it can be a matter of one-trial learning because of the novel and dramatic nature of the initial chance encounter with a relief-producing substance or experience. The sheer intensity of perceived tension reduction and psychological release is sometimes expressed as a profound discovery (e.g., "Oh, wow! Where has this been all my life?"). This reaction may be pathognomic of addiction-prone persons who have suffered from extremely high or extremely low resting levels of physiologic tension. The literature has referred to this dual minority of persons at either end of the normally distributed range of resting physiological tension (arousal) levels as "reducer" and "enhancer" types (Petrie, 1967; Ogborne, 1974). The "reducers" are characterized by a resting state of chronic overmobilization. The "enhancers" are characterized by a resting physiological state of chronic undermobilization (see Figure 1). Both groups tend to be resigned to their

respective lifelong states as being unpleasant, different from other people, and essentially immutable. Many express feelings of being victims of nature in this regard. Not all reducers and enhancers are prone to acquiring an "addictive personality syndrome" (APS). However, the presence of an atypical and persistent physiologic state is held to be one of two necessary predisposing conditions for developing an addiction.

The second essential pre-condition that must prevail before the stage is fully set for acquiring the behavioral pattern that this author has termed the APS is a childhood and adolescence marked by deep feelings of inadequacy, inferiority, and a sense of rejection by parents and significant others. Instead of responding to these circumstances by building success-producing behaviors or reacting with a dominant pattern of anger and aggressive acting out, addiction-prone youngsters generally retreat into wish-fulfilling fantasy where they may find relief from the painful reality of their existence. The combined impact of these physiological and social-psychological disabilities during their early lives conspire to inhibit such persons from interacting freely with their environment and, thereby, reduce their opportunities to learn a range of stress-reducing and coping skills sufficient to offset their inordinate needs for physical relief, freedom from anxiety, and social recognition and approval. As a consequence, such persons are particularly vulnerable during their adolescent years to *chance encounters* with substances or experiences that (for the chronically tense and overmobilized) bring a sense of relaxation and relief, or (for the chronically undermobilized) replaces their sense of being "numb," "empty," or "feeling dead inside" with a scintillating sense of being acutely alive. In either event, when chance occurrences trigger a welcome relief from their unpleasant physiologic state and *also* provide such persons with an opportunity to escape even briefly from the unpleasant realities of everyday life to a world apart wherein they *may actively live out their fantasies* of personal success and of social acceptance, the stage is fully set for such predisposed persons to acquire the Addictive Personality Syndrome. Figure 1 attempts to graphically portray the predisposing conditions and progressive stages that, theoretically, characterize the major benchmarks in the course of an addictive career that typically stretches over 20 years or more (Jacobs, 1982b).

A key sign that one is dealing with this particular subclass of persons (Jacobs, 1984) is the striking clarity and completeness with which they recall their very first experience (or the early series of repeated chance occurrences) that led to their discovery that they could change the unhappy conditions they had resigned themselves to endure. Apparently, it is the striking contrast between their aversive, unhappy, non-fulfilling resting state and its dramatic alleviation that creates such a novel, intense and well-remembered experience. From a learning theory point of view this would qualify as one-trial

learning. This author has termed this phenomenon the *"Stage I Discovery"* (Figure 1). The extremely high level of positive reinforcement produced by this experience virtually assures that the affected person will make efforts to repeat it. Frequently the specific active agents most responsible for producing the pleasurable end results are embedded in a hazy network of co-existing and contingent situational cues so as to escape clear-cut identification. Thus, one finds persons returning expectantly to the general mix of circumstance, situation, associates, etc., that existed at the time of initial discovery. With repeated trials available to them, addiction-prone individuals will gradually eliminate non-essential elements so they may obtain the most intense positive reaction with the least expenditure of time, effort, and resources. In this manner, the addiction-prone individual quickly *overlearns* how to recapture the relief experience through deliberately contrived repetitions. Knowing what to do and having learned how to do it well (to the increasing exclusion of other less rewarding life activities) leads the individual into the planned course of highly motivated, repetitive and compulsivelike behaviors characterized by Stage II of the APS (Figure 1). This has been termed the "Stage of Resistance" because of the dogged insistence of the now clearly addicted person to cling to this behavioral pattern and to evade and reject outside efforts to discourage its practice.

Thus, one sees that the onset of addiction is triggered by a chance occurrence in the life of an already predisposed individual. The addictive pattern is developed and maintained by a series of learned maneuvers refined over time to maintain and prolong both psychological and physiological relief, and to avoid anticipated pain. As will be elaborated later, only a very limited range of experiences can effectively trigger this type of syndrome in a given predisposed individual. Consequently, one might reasonably speculate that, by far, the greater number of *addiction-prone* persons may go their entire lives without ever encountering an effective triggering event. One can take little comfort from this, if one also believes that today's youth are being exposed to an ever-increasing number and variety of triggering events in their environment. The probability of such an encounter increases in direct proportion to greater geographic mobility and increased contacts with persons and experiences beyond those found in one's home environment, vicarious exposure to new sources of experience offered through the media, deliberate media and street advertising to promote endless ways of instant "feeling better" (uppers, downers, self-actualization, inner peace, etc.), plus permission to explore from an increasingly open and impersonal society.

It is not likely that society will choose to stem the possible emergence of increasing numbers of persons showing one or another kind of Addictive Personality Syndrome by reversing the tide of human affairs. Rather, more addictions in a variety of manifestations appears to be the tragic cost that must be paid among the gains obtained from what society considers to be

"progress." Consequently, the documented rise in addictive behaviors, particularly in adolescents and young adults, must be met first by developing improved methods for *intercepting* susceptible persons at the Stage I level of discovery. Those identified would be provided with crash programs to reduce their biologic distress. This would be supplemented with individually targeted stress-management and coping skill training to improve their self-confidence, general adjustments and psychological state. This in turn would be supported by individual and group management of environmental crises, by family counseling, and by continued contacts with educative self-help groups at the local community level. In the aggregate these actions would serve to reduce the risks of entry into Stage II. Assuming the theory proposed herein finds substantial support in the program of research that already has been initiated (Jacobs & Wright, 1980), one would then venture to mount educational programs aimed at *prevention* among high risk children and youth who would be screened for the presence of the critical combination of physiological and sociopsychological precursors to the APS. This would best be accomplished before a Stage I "discovery" incident occurs.

Unfortunately, clinical impressions suggest that once the course of the APS has moved substantially into Stage II, the likelihood of effective interruption and reversal of this syndrome progressively diminishes until the individual reaches Stage III ("Exhaustion"). The course through Stage II ("Resistance to Change") typically takes years, accompanied by untold personal and interpersonal misery, physical and psychological illness, and crippling economic and social costs. Frequently, the process is aborted by sudden accidental death or death by homicide or suicide, but few spontaneous remissions are reported. Both the morbidity and mortality rates of addicted persons are expected, thereby, to significantly exceed those of their age/sex/socio-economic cohorts in the general population.

Returning to the general course of the APS, the author proposed a combination of three critical factors to explain the marked resistiveness to extinction of such acquired states, *despite* the mounting punishing consequences of their continued pursuit. The first factor is the positive reinforcement obtained during Stages I and II as a result of the high levels of pleasure experienced by those chronically and severely deprived persons. The second factor contributing to the stubborn resistance to change during Stage II is the extensive degree of overlearning that has occurred through deliberately contrived repetitions of the behavior, both in fantasy and in vivo. These real and fancied redentigrations of cues associated with the positively reinforcing experience build up an extremely strong habit strength for the entire behavioral pattern. Were positive reinforcement and mounting habit strength the only factors to be considered, the application of proven counter-conditioning principles and methods likely could capture, alter, and eventually eliminate the behavior patterns under consideration. Experience,

however, shows that such narrow gauge methods generally have not been successful.

In this author's view, it is the third factor that serves as the linchpin of the Addictive Personality Syndrome, and holds the secret to its extreme resistiveness to extinction. This factor is the addict's phobic-like *avoidance* of a return to the (now well recognized) lifelong aversive resting state that had characterized his unhappy and deprived condition prior to his "discovery" of how it could be altered. With the discovery of relief the individual is confronted by a dramatic contrast effect. He suddenly comes to perceive how *really* terrible his previous existence had been. The release from this long-term prison of deprivation (dramatized by the "Oh, Wow!" reaction) reveals that the individual has realized the impossible dream of feeling so much better. The contrast produced by this feeling of relief serves to deepen the depths of "the pits" from which the individual has emerged. Discovering that there is another, so much better way of feeling changes the whole character of the individual's perceptions about his past life and his expectations for the future. With the discovery of a new goal, (i.e., the unique *combination* of physical and psychological relief) and a rough idea of the instrumental behavior that will achieve it, the nature of the individual's response to his resting state converts radically from one of passive *deprivation* to one of active *frustration.* His reactions henceforth are typical of those shown by frustrated persons, namely, a marked increase in goal-oriented problem solving, anger and resentment at being blocked, substitution of goal-attaining fantasies in the face of continued frustration, increases in regressive behaviors, etc. Perhaps the most lasting of all these reactions is the individual's resolve never to return to the previous aversive resting state. This suggests that the poets were wrong: to have loved and lost is infinitely *worse* than never to have loved at all. With love experienced and then lost, one gains a much deeper awareness of how devastating loneliness was, and how infinite the depths of emptiness can be.

Beginning with the Stage I "discovery," the individual learns to engage in behaviors which prevent the occurrence of internal cues that were associated with his previous aversive resting state. Thus, two extremely potent types of reinforcers combine to maintain the addictive process: (a) *the positive reinforcement* obtained from the memory and expectation of pleasure, and (b) the *negative reinforcement* of escape from and avoidance of anticipated pain. As the addictive process proceeds into the middle and end phases of Stage II, the latter mechanism asserts increasing dominance in the behavior pattern termed the APS. This is illustrated in the statements of long addicted persons that they no longer experience their earlier levels of enjoyment, even as they desperately accelerate their addictive behavior. Their motivation is not to avoid the transient discomfort of physiologic withdrawal, but to buy time before they must face the even greater psychological terror of falling into "the pits" of an ever-worsening reality. This stimulates the addict to build an ex-

panding behavioral repertoire designed to extend gratification and to avoid anticipated pain. These maneuvers, accumulated and systematized over time, inevitably change the entire lifestyle of the affected person, as well as force major modifications on the lives and behavior of other persons and on circumstances in his immediate environment. The workings of this process will be described in detail in the next section.

Onset and Course of the APS: A Working Model for Assessment and Intervention

Figure 1 portrays the major structural components of the theoretical paradigm termed the "Addictive Personality Syndrome" (APS). These are: (1) two separate, but interrelated sets of psychosocial and physiological *predisposing factors* which are advanced as necessary prerequisites to acquiring *any* addiction; (2) specification of the two extreme groups on the physiological "resting level of arousal" continuum who are believed to be most at risk for acquiring an addiction; (3) the stimulus: a chance stress-reducing situational event (the "discovery") that sets the stage for acquiring an addictive pattern; (4) the critical "rebound reaction" that follows the triggering episode, and brings the individual back into contact with his previous non-satisfying physiological and psychological resting states. These four *Stage I* ("Discovery") conditions are the precursors for developing an "Addictive Personality Syndrome."

Stage II reactions represent a subsequent period of building and maintaining the main body of the addictive pattern of behavior. Note that during the course of Stage II, use patterns vary in frequency, duration and intensity. This is portrayed in Figure 1 by a sine-wave progression. Contrary to popular wisdom, this author does not attribute the shape of this progression wholly to habituation and the need for greater amounts of positive stimulation to produce the former effect. Rather, it is proposed that a heretofore overlooked factor contributes significantly to the undulating character of the addictive pattern. This masked (but progressively more potent) factor is comprised of *a set of anticipatory avoidance behaviors directed toward preventing a return to one's previous (and now recognized!) aversive physiological and psychological resting states,* i.e., "the pits!" This threat, provoked by perceiving that one is coming down from the "high" or losing the mellow "low," is countered by a frantic overreaction to reinstate the escape mechanism of the addictive pattern. The downswing of the sine-wave represents the progressive fading of the positive experience engendered by indulgence in the addictive behavior. Perceiving that one is "falling into the valleys" (between sine-waves) provokes a panic-like "rebound reaction" to escape and to avoid falling further into one's perceived "pits." Thus, the up side of the succeeding sine-wave (i.e., next episode of indulgence) not only represents an approach to greater positive

reinforcement, but also signifies a successful escape from and avoidance of threats of anticipated pain and anxiety should such action not be taken. What is described here goes far beyond what might be attributed to avoidance of a physiological "withdrawal" reaction. The reaction described is *internal* to the continuing addictive pattern: the addict is not the least motivated to abort or terminate his use pattern for any extended time.

Clinical observations strongly collaborate the concerted, innovative attempts of addicted persons to ensure that they will not be long without the wherewithal necessary to maintain their chosen addictive pattern. These persons have developed ingenious methods for "stashing" substances, so they will be on hand at any hour of emergency. They also squirrel away specially earmarked and otherwise inviolate money (or other negotiables) to purchase same. Similar forms of hedging against the phobic-like anticipatory fear of being without are seen among nonsubstance abusers who demonstrate other types of addictive behavior (e.g., compulsive gamblers). In addition to compulsive gamblers, there are several other "psychologically dependent" groups who may fit within the APS conceptual framework. These have been described as those who cling desperately to star-crossed love relationships, compulsively seek medical attention through complaints of illness or requests for polysurgery, or bask in the notoriety of confessing crimes they did not commit.

Another clinical group who dramatically evidence the building of elaborate avoidant defense strategies against experiencing *anticipated* physical and psychological distress is a small subclass of chronic pain patients. These have been described elsewhere as demonstrating a "chronic pain personality syndrome" (Jacobs, 1980). While much more research is needed, early impressions of this group strongly suggest predisposing conditions of atypical physiological resting state and marked lifelong psychological maladjustment. They attend in a highly compulsive and ever-elaborated manner to the maintenance of a tightly knit set of learned behaviors directed not only to relieve present pain but, particularly, to defending themselves against the phobic-like fear that their level of pain *may worsen.* This syndrome also includes dependency on a variety of physical, health systems, pharmacological and psychosocial supports. These expand to dominate the person's entire lifestyle and invariably have detrimental effects on the individual and on those in his immediate and extended social circle. This would seem to qualify patients demonstrating the "chronic pain personality syndrome" among the company of other addicts, and would bring them under the broader theoretical rubric of the APS.

It is the author's contention that the heretofore overlooked feature of anticipatory fear of a *future* "catastrophic" event is common, even central, to *all* types of addiction. It is seen as the prime mover that stokes the crescendo of frantic, unmodulated indulgence at the later downhill stages in substance

abusers and addicts. This greatly increases the likelihood of *overdose* among those groups. Similarly, where the addiction takes the form of a psychological dependency on the presence of certain activities, supportive relationships or circumstances, the addict's growing realization that he might not be able to obtain or maintain adequate support leads this person to fear-driven excessive demands that go beyond the system's ability or willingness to support, and the individual may be summarily rejected. This in turn usually leads to all manner of psychological, physiological, and social crises that also can reach life-threatening proportions for that person, even though he is not a substance abuser.

The reader is again referred to Figure 1. Attention is directed to the changing nature and direction of the sine-wave progression during Stage II. During the "early" phase of Stage II, the area above the baseline of the sine-wave predominates, indicating pleasurable results. As the individual proceeds to the "middle" and "end" phases of Stage II, the area above the baseline (pleasurable effects) progressively recedes, while that below the baseline (negative effects) increases proportionately. Eventually, the addicted person is subjected to a "double whammy." The middle and end phases of Stage II are characterized by a growing and compulsively focused preoccupation, first with maintaining the desired state, and then with avoiding return to the aversive resting state. As this proceeds, the individual shows the typical behavioral manifestations of all addicted persons, i.e., an increased funneling of waking activities to prepare for and support the addictive pattern and a progressive narrowing of or withdrawal from other commitments, producing radical changes in one's lifestyle and causing major disruptions in previously established personal, social, and occupational roles. Common casualties of these middle to end State II activities are alienation from family, friends and associates who disapprove of or try to stop the addictive behavior, financial disaster and conflicts, both with the law and the criminal infra-system, and seriously diminished physical and mental health. Towards the end of Stage II, pleasure once gained from the addictive pattern has been largely lost, and the build-up of punishing consequences from years of addiction brings the individual, emotionally distraught, dilapidated in mind and body, and bereft of social and economic supports, to the threshold of *Stage III* ("Exhaustion").

The excursion through Stage II usually involves many years. During this time, a heavy toll has been placed on the addict's entire support system, including family, job, associates, economic resources, etc. Not only does he find that his addictive pattern no longer affords him the internal relief it used to but, meanwhile, he has become inundated with everyday environmental troubles of every stripe. Persons in the end phases of Stage II would be expected to show increasing anxiety, reaching phobic proportions, that they will surely fall into "the pits," since episodes of relief have become progressively more short-lived and increasingly more difficult to attain. Indeed, the basic

premise of the present theory is that the course of the Addictive Personality Syndrome is shaped by the changing dimensions of the *reciprocal relationship* between positive and negative reinforcement. This essentially is what is represented by the changing sine-curve progression in Figure 1. Over an extended period of time, subtle changes occur within this reciprocal relationship. In the entry phase of Stage II the positive reinforcing effects of the "high" or "mellow" states dominate. This leads to attempts to repeat those experiences, since they provide such a rewarding contrast from the individual's former physiological resting state, as well as permit the person's cognitive set to shift from a negative to a positive view of the self. Whether the obtained physiologic state is an excited "high" or a mellow "low," the *psychological* end result is the same: it facilitates complimentary daydreams about the self, blurs reality testing, lowers self-criticalness and, as a consequence, permits acting-out of one's fantasies.

Stage III in the Addictive Personality Syndrome is one of rapid collapse of the entire pattern and a plummeting into a state of physical and psychological exhaustion. It is at this point, however, that the addict is most amenable to treatment. These three stages reflect the onset and course of the Addictive Personality Syndrome once acquired by predisposed persons. This behavior pattern is amenable to modification and reversal almost exclusively during Stages I and III.

The process of acquiring and maintaining an addiction—*any addiction*—is held to follow this basic pattern. One essential difference emerging from the author's theory that distinguishes it from those advanced by others is the author's conclusion that a given addictive behavior can occur *only* in a relatively small proportion of the population. These persons must be predisposed both biologically and psychologically before certain experiences can acquire addictive qualities for them. This theory emphasizes the fact that repeated, intense and/or prolonged use or abuse of a substance or behavioral pattern *does not of itself* produce an addictive pattern of behavior analogous to the APS. Nor does it necessarily follow that sudden cessation of what appears to be an established use pattern automatically and invariably produce a characteristic set of psycho-physiological "withdrawal" reactions (Custer, 1982:120; Wray & Dickerson, 1981). A dramatic illustration of this latter point was the tens of thousands of military personnel who admitted to heavy use of heroin and other drugs while in Vietnam. It was anticipated that upon their return the nation would be faced with a massive drug treatment and rehabilitation problem. It is a matter of record that this did not materialize. The overwhelming majority (Robins, David & Nurco, 1974) abruptly ceased their use of these substances, with few reports of withdrawal problems and with no evidence of resumption upon their return to the United States. This massive unexpected test of the historical hypothesis that addiction is a direct

function of use should have sparked a major reexamination and revision of prevailing concepts and theories regarding the precursors, causes and course of *alleged* addictive behavior. Unfortunately, this was not the case. Not only have the time-honored theories of drug addiction persisted, but dependency on other substances (such as selected foods) and on other activities (such as compulsive gambling) have been prodded to fit into the faulted model. This treatise does not mean to take sides in an idle "mind-body" controversy about whether physiological or psychological factors dominate addictive behavior. To tilt towards the proverbial Cheshire Cat is really no better nor worse than to lean towards the Headless Horseman! The writer holds that in the final analysis all behavior is the *resultant* of interacting and interdependent biological, psychological and environmental factors (i.e., B = PXE: *behavior* is a function of the *person* interacting with his here and now *environment*). Historical theories of addiction clearly have overemphasized biological factors and underrated psychological and environmental factors (Glaser, 1974). Unfortunately, this has skewed and often truncated problem definition and limited the range of subsequent treatment approaches. By the same token, psychological theories of addiction have tended to diminish or ignore possible biologic precursors and influences in the onset, course, and treatment of the condition. Both approaches have slighted the impact of situational factors in the current social scene, and the need to deal decisively with them. Exclusive use of either theoretical stance, or adopting the atheoretical position of merely attempting to block and prevent resumption of the pattern, increases the likelihood of misidentifying populations at risk, thereby shortchanging everyone. Such one-sided approaches serve to water down public interest about problems with addiction and delay mobilization of public support for mounting more effective research, treatment and prevention activities.

SUMMARY

The proposed model of the Addictive Personality Syndrome (APS) has been offered to stimulate efforts to find a comprehensive theory that encompasses the essential characteristics of *any* "addictive" or "psychologically dependent" pattern of behavior. The APS identifies two specific sets of predisposing factors that are held to be characteristic of persons with a high potential for developing an addiction. The theory aims to hasten early diagnosis and to stimulate further research to correct extreme states of physiologic tension or lassitude. Concomitantly, it encourages much broader application of well-validated stress management and coping skill training techniques to alter negative self-concepts, and to increase adaptive and satisfying self-control and problem solving skills. This entire spectrum of approaches must be applied in an integrated manner, if success rates are to increase.

The author offers the challenge that even chronically extreme resting physiological levels may be modified (on an individual basis) by tailored programs of a holistic, rather than exclusively physical or pharmacologic nature. Vigorous research and clinical trials must explore how enduring changes in resting arousal states can be effected and maintained by diet, exercise, controlled breathing, meditation, use of a variety of stress management techniques, including biofeedback, etc. It is hoped that this line of investigation will hasten the discovery of non-intrusive methods for maintaining homeostasis.

REFERENCES

Cummings, N.A. (1979). Turning bread into stones: Our modern antimiracle. *American Psychologist, 34,* 1119-1129.

Custer, R.L. (1982). "An Overview of Compulsive Gambling," pp. 107-124 in P. Carone, S. Yoles, S. Kieffer and L. Krinsky (Eds.) *Addictive Disorders Update.* New York: Human Sciences Press.

Custer, R.L. (1975). *Characteristics of compulsive gamblers.* Paper presented at the 2nd Annual Conference on Gambling, Lake Tahoe, Nevada.

Donegan, N.H., Rodin, J., O'Brien, C.P., & Solomon, R.L. (1983). A learning-theory approach to commonalities. In P. Levison et al. (Eds.), *Commonalities in substance abuse and habitual behavior.* Lexington, Mass.

Dorland's Illustrated Medical Dictionary (Twenty-fifth Edition). (1974). Philadelphia, Pennsylvania: W.B. Saunders.

Glaser, F.B. Medical ethnocentrism and the treatment of addiction. (1974). *International Journal of Offender Therapy and Comparative Criminology, 18,* 13-27.

Jacobs, D.F., & Wright, E.T. (1980). *A program of research on the causes and treatment of addictive behaviors: Using the compulsive gambler as the prototype subject.* Loma Linda, California: unpublished.

Jacobs, D.F. Holistic strategies in the management of chronic pain. (1980). In F. McQuigan, et al. (Eds.), *Stress and Tension Control.* New York: Plenum.

Jacobs, D.F. (1982a). *Factors alleged as predisposing to compulsive gambling.* Paper presented at the Annual Convention of the American Psychological Association, Washington, D.C.

Jacobs, D.F. (1982b). The Addictive Personality Syndrome (APS): A new theoretical model for understanding and treating addictions. In W.R. Eadington (Ed.), *The Gambling Papers: Proceedings of the Fifth National Conference on Gambling and Risk Taking.* Reno, Nevada: University of Nevada.

Jacobs, D.F. (1984). Study of traits leading to compulsive gambling. In *Sharing recovery through Gamblers Anonymous.* Los Angeles, California: Gamblers Anonymous Publishing, Inc.

Jacobs, D.F., Marston, A.R., & Singer, R.D. (1985). Testing a general theory of addictions: Similarities and differences between alcoholics, pathological gamblers and compulsive overeaters. *Proceedings of the XXIII International Congress of Psychology,* Acapulco, Mexico. North Holland Press: The Netherlands (in press).

Levison, P.K., Gerstein, D.R., & Maloff, D.R. (1983). *Commonalities in substance abuse and habitual behavior.* Lexington, Massachusetts: D.C. Heath and Company.

Ogborne, A. (1974). Two types of heroin reactions. *Brit J Addictions 39,* 237-242.

Peele, S. (1977). Redefining addiction I: Making addiction a scientifically and socially useful concept. *International Journal of Health Services, 7,* 103-124.

Peele, S. (1979). Redefining addiction II: The meaning of addiction in our lives. *Journal of Psychedelic Drugs, 11,* 289-297.

Petrie, A. (1967). *Individuality in pain and suffering.* Chicago: University of Chicago Press.

Robins, L.M., David, D.H., and Nurco, D.W. (1974). How permanent was Vietnam drug addiction? *Am J Pub Health,* 64:38-43.

Walker, A.L., & Lidz, C.W. (1983). Common features of troublesome habitual behaviors: A cultural approach. In P. Levison et al. (Ed.), *Commonalities in substance abuse and habitual behavior.* Lexington, Massachusetts: D.C. Heath and Company.

Wray, Ian, & Dickerson, Mark. (1981). Cessation of high frequency gambling and "withdrawal" symptoms. *British Journal of Addictions,* 76.