Basic Concepts and Theories

Motivation and the Theory of Current Concerns

Eric Klinger

University of Minnesota, Morris, USA

and

W. Miles Cox

University of Wales, Bangor, UK

Synopsis.—This chapter introduces basic concepts of motivation and goal pursuit within the framework of the theory of current concerns. Behavior and experience are organized around the pursuit and enjoyment of goals. Accordingly, this chapter first discusses basic motivational concepts, which address the processes involved in choosing and pursuing goals. It examines how people choose goals and traces the effects on a person of having a goal, up to the point at which the person attains or relinquishes the goal, and beyond that the consequences of the way the goal pursuit ends. Goal choice depends on the value assigned by the chooser to each alternative (*incentive*) and its perceived attainability. Commitment to a goal pursuit launches a latent, time-binding brain process (a *current concern*) that sensitizes the individual to notice, recall, think about, dream about, and act on cues associated with the goal pursuit. Goal pursuits vary according to whether the goal is an approach or an avoidance goal, the time frame for action, the anticipation of the details and difficulties of the goal pursuit, and the degree of conflict with other goals. Emotional responses determine incentive values, serve as evaluative feedback during goal pursuits, and accompany consummation of or disengagement from the goal. The process of disengagement normally entails a sequence of emotional changes: invigoration, anger, depression, and recovery. Each of these components of goal choice and pursuit can go awry, leading to a variety of difficulties that become reflected in anxiety, depression, alienation, interpersonal and occupational problems, substance use, suicide, and other forms of psychological disturbance. Counseling intervention needs to address the motivational problems that deter clients from committing to the goals that can potentially bring them happiness and fulfillment.

Vince Lombardi, renowned American football coach, is alleged to have said, "Winning isn't everything, it's the only thing" (Simpson, 1988, p. 388). In the same sense, successful pursuit of goals is not just the most important thing in the life of humans and other animals; it is ultimately the only thing that counts toward survival, life's bottom line.

All living organisms must meet life's challenges of obtaining nutrients, excreting toxic substances, locating hospitable places, and reproducing themselves. Plants and animals have evolved quite different strategies for addressing these challenges. Plants depend on their immediate environments to supply their needs. Their *sessile* (sitting in place) strategy requires massive procreation, and although a huge proportion of progeny die, enough survive

to carry on their species. Animals evolved a degree of freedom from the not-too-tender mercies of their most immediate environments. However, this freedom from total dependency also carries a price: the imperative to find, pursue, and consummate the substances and conditions that satisfy their needs. These substances and conditions constitute *goals*. Animals thus follow a *motile* (moving around) strategy that requires them to—in author and radio host Garrison Keillor's words (in innumerable radio broadcasts of Public Radio International's Prairie Home Companion)—"get up and do the things that need to be done," to pursue goals.

Human goals may be small or large—from a few moments of amusement or organizing a file to finding a mate, having and successfully rearing children, succeeding in a vocation, becoming rich, or achieving spiritual fulfillment. They may be positive (*appetitive*), like those just described, or negative (*aversive*), such as avoiding disease, a bully, or a bad reputation. Some are more obviously important than others, some more obviously bear on individual survival than others, and some may be perverted to jeopardize survival.

In psychology, the processes that make goal-striving possible are called *motivation*. This book and the approaches it contains are built around the notion that, to be effective, any psychological intervention must address the client's set of life goals, whether large or small, and the ways in which the client relates to those goals. Taken altogether, a client's goals and ways of relating to them are what this book refers to as the client's *motivational structure*. The approaches described in the chapters that follow focus on understanding, assessing, and intervening to modify clients' motivational structure. First, however, this chapter introduces some motivational definitions and concepts and maps out some of what scientific research has established about motivational systems—their nature, their influences on what people notice, recall, think about, feel, and do, and their implications for well-being, psychopathology, and treatment.

MOTIVATION FORMALLY DEFINED

Different psychologists define what they mean by motivation somewhat differently. Ferguson (1994) reflects a long tradition when he defined motivation as "the internal states of the organism that lead to the instigation, persistence, energy, and direction of behavior" (p. 429). That might seem to include everything that affects behavior, but the focus here is first of all on "internal states," which excludes the kind of direct physical impact that produces a broken leg or a patellar reflex, as when a physician taps a patient's patellar tendon and produces an involuntary knee jerk. Thus, Ferguson's definition includes the effects of drives such as hunger, emotional states such as anxiety and anger, and many other variations of inner states. Second, the definition lists the main qualities of behavior that motivation is defined to influence: its initiation, persistence, vigor, and direction.

Yet, this definition leaves out mention of a crucial component, which Chaplin (1968) included when he defined motivation as a concept "to account for factors within the organism which arouse, maintain, and channel behavior toward a goal" (p. 303). Chaplin's definition specifies an additional critical element of motivation that Ferguson's definition lacks—that motivation directs behavior toward specific *goals*. That is, motivated behavior is also goal-directed behavior. One could thus combine the two definitions of motivation: "the internal states of the organism that lead to the instigation, persistence, energy, and direction of

behavior towards a goal." It is this combined definition that informs this chapter and most of the book.

THE CENTRALITY OF MOTIVATION IN BRAIN AND MIND

Motivation is not just one more set of psychological processes. If animals evolved with a motile strategy to go after the substances and conditions they need, the most basic requirement for their survival is successful goal-striving. In that case, all animal evolution, right up to humans, must have centered on natural selection of whatever facilitated attaining goals. This must mean that everything about humans evolved in the service of successful goal-striving—including human anatomy, physiology, cognition, and emotion. These other features of being human must therefore be understood in terms of their relationship to goal-striving and the motivational systems that make it possible.

In recent decades, neuroscientists have turned up dramatic evidence of the close connections between virtually all psychological processes and those associated with emotion and goal-striving. Ledoux (e.g., 1995) showed that, in the brain sensory systems, pathways bifurcate—some leading from sense organs to the cerebral cortex, and others from sense organs to the limbic system, which is heavily implicated in emotion. This suggests that sensory signals begin to trigger emotional reactions at least as quickly as they trigger cognitive processes that analyze the signals in order to make more detailed sense of them. There are also pathways from the limbic system to the cortex and from the cortex to the limbic system, which provides a system for mutual alerting, refinement, and correction between emotional and cognitive responses to the signal. Neurons in the anterior cingulate, a part of the limbic system, fire according to expectancy of reward (Shidara & Richmond, 2002). Thus, brain anatomy indicates that emotional response and closely related motivational processes are a central part of responding to something.

The centrality of emotional and motivational processes is also apparent in the work of Antonio and Hanna Damasio and their colleagues. They have, for example, shown that destruction of specific brain areas, such as the medial prefrontal cortex, leaves people unable to stay on course toward their goals, substantially crippling their ability to lead normal, satisfying lives (Damasio, 1994). The ventromedial prefrontal cortex appears to integrate emotion-related signals from the limbic system with signals from various cortical areas, including some that are necessary for planning and volition. Without this integration, people become impulsive, make unrealistic plans, and are easily distracted from their goals. Along similar lines, a controlled experiment showed that, unlike normal individuals, patients with ventromedial prefrontal damage were unable to learn to avoid risky or nonoptimal strategies in a laboratory game (Bechara, Tranel, & Damasio, 2000; Bechara et al., 1997). In the first of these two studies, the brain-damaged participants, in contrast to others, manifested no skin conductance responses when they chose risky strategies. Here skin conductance responses presumably reflect fear of taking a risk that would be inappropriate relative to the individual's goal in the task. Thus, the particular brain damage of these patients interfered with input from their emotional responses and correspondingly compromised their ability to make appropriate, goal-related decisions.

Mounting evidence such as this confirms the centrality of motivational and emotional processes in the organization of the brain. Correspondingly, it supports the parallel, older

evidence of their centrality to psychological organization, and it underlines the importance for counselors and psychotherapists of understanding the interconnections with motivational processes and integrating applicable methods into treatment procedures.

IMPORTANT DISTINCTIONS REGARDING MOTIVATION

Motivational States versus Motivational Traits

There are also other important distinctions regarding motivation to keep in mind. The definitions introduced earlier suggest that motivation refers to short-lived internal states such as hunger or anger, but there is also in psychology a long history of conceptualizing and measuring motivational factors as relatively enduring dispositions or traits (e.g., Allport, 1937; Heckhausen, 1967, 1991; Jackson, Ahmed, & Heapy, 1976; McClelland et al., 1953; Murray, 1938). For example, an individual may not only be trying hard to build a strong business, which could reflect achievement motivation, but may also place high value on and invest much effort into doing many things better than others and into improving on a previous personal performance. This individual may then be described as generally achievement-motivated, which constitutes the enduring trait of high achievement motivation.

There are purposes for which conceiving motivation in terms of enduring dispositions is very useful. For example, as many search committees and search firms know, when one is selecting college professors or corporate executives, it would be helpful to ascertain the kinds of goals that typically interest them, because that knowledge may shed light on their likely performance and fitness for the position. However, characterizing someone in terms of motivational traits can also blind one to the fact that these traits are generalizations about an individual's goal pursuits, that each goal pursuit represents a decision that is influenced by a given set of factors, and that these factors, and the decisions they produce, are subject to change. Especially for counselors and therapists, the possibility of changing motivation, and the methods for producing change, are central to their enterprise. Thus, although motivational dispositions can be useful ways to describe individuals, they are not fixed quantities, but changeable.

Accordingly, this book is focused more on motivational states and conditions, which cumulatively may lead to traits, than on the motivational traits themselves. When one can change people's decisions about the kinds of goals to pursue, one has by that fact also changed motivational traits.

Motivation and Volition

Some writers on motivation, especially in the German psychological tradition (e.g., Heckhausen, 1991; Kuhl, 2001), restrict the term motivation to the processes and factors that determine which goals an individual will pursue; they then classify as *volition* (from the Latin root for the *will*) the factors that regulate *how* the individual carries out the pursuit—persistence, vigor, and efficiency. Thus, in this usage, the term *motivation* includes only the initial factors that determine an individual's choice of goals, leaving the rest to volition. In contrast, in the American tradition the term *motivation* includes volition; volitional processes are simply a subset of motivation. The difference is purely semantic, but

the semantics entail advantages and disadvantages. The advantage of the German approach is that there is a separate term (motivation) for those factors that determine choice of goals, just as there is a term (volition) for how the goal is pursued. In the usual American usage there is no such generally accepted word for the factors that determine goal choice, because motivation covers the whole range of goal-related processes, from determining the choice of goals to the end of the pursuit. The advantage of the broader usage of the term *motivation* is that it provides a single term to refer to all goal-related processes. This chapter and most of the other chapters will abide by the broader definition of motivation.

What is important here is to keep in mind the importance of volitional processes. They are part of motivational structure, and they are part of what may need to change in counseling. For example, when an individual gives up too easily in the face of difficulty or uses self-defeating coping strategies such as procrastinating or ruminating, addressing these is part of effective intervention. Thus, a comprehensive approach to motivational counseling must include both a person's choices of goals and the volitional means of pursuing them.

Intrinsic versus Extrinsic Motivation

The field of motivational research has placed much importance on the distinction between intrinsic and extrinsic motivation (e.g., Ryan et al., 1996). Motivation is said to be intrinsic when an individual pursues a goal for its own sake. That is, reaching the goal is not just a step in attaining some further goal. For example, eating an ice cream cone for pleasure or marrying for love are intrinsically motivated acts. Motivation is said to be extrinsic when a goal is a stepping-stone to some further goal. For example, eating an ice cream cone solely to gain weight or marrying solely to improve one's social position are extrinsically motivated acts. Acts that are purely extrinsically motivated yield only one kind of satisfaction: the satisfaction of moving closer to attaining some other source of satisfaction.

The examples indicate that the same kind of act may be motivated intrinsically, extrinsically, or in both ways. However, some kinds of goal are generally more likely to be motivated intrinsically (e.g., visiting a national park) and others more likely to be motivated extrinsically (e.g., becoming rich). The balance of an individual's motivational structure in this regard—that is, whether the individual's motivation is more often intrinsic or extrinsic—is associated with overall feelings of well-being and satisfaction with life and work (Kasser & Ryan, 2001; Ryan et al., 1996; Schmuck, 2001).

Nevertheless, it is important to keep in mind that any extrinsically motivated act, which is a step toward some other goal, is part of a chain of acts and subgoals that ultimately lead to an intrinsically motivated goal. What may very well be more important than whether particular goals are intrinsically or extrinsically motivated is whether the intrinsically motivated goal at the end of the chain is appetitive (e.g., a happy home) or aversive (e.g., keeping from angering one's mate). People with more aversive goals are generally less satisfied with life and work than those with fewer aversive goals (Elliot & Sheldon, 1998; Roberson, 1989; Roberson & Sluss, Chapter 14, this volume). Satisfaction presumably also depends on whether the ultimate intrinsically motivated goal is worth all the bother of the extrinsically motivated activity leading up to it.

It is important not to confuse the intrinsic versus extrinsic distinction with whether a goal was self-chosen or chosen by someone else. Similarly, the distinction is not to be confused with whether another person plays a role in the rewards of attaining a goal. Goals imposed

on one by others, or perhaps even just suggested by others, are likely to be extrinsically motivated, in that pursuing the goal is likely to have the further purpose of keeping the person who imposed it happy. Thus, the child will carry out the trash when asked to do so because of a desire to keep the parent's emotional support. Keeping that support, however, may be in part intrinsically motivated, in that the child enjoys for its own sake relating to a supportive parent. Conversely, self-chosen goals may be extrinsically motivated (for example, taking a difficult college course in order to upgrade one's credentials for future employment) as well as intrinsically motivated.

In summary, it is a mistake to equate—as some current writers appear to do—intrinsic motivation with desirable motivation and extrinsic with undesirable. Both are important and necessary. However, the balance between them in an individual's life and the concrete forms they take can affect overall happiness.

Other Motivational Constructs

This chapter is unable to review all of the motivational constructs. However, readers may wonder what happened to the traditional concepts that make up the main focus of conventional introductory textbooks, constructs such as drive (e.g., hunger, thirst, sexual arousal), need (e.g., for achievement or intimacy), and arousal.

The venerable concept of drive (e.g., Bindra, 1968; Hull, 1952) remains an important component of the motivational picture as an aroused internal state that both invigorates mental and motor activity and modulates the value of drive-related incentives. However, even Hull's (1952) theory supplemented it with incentive as a determinant of motivation, and subsequent evidence (e.g., Bindra, 1968; Black, 1965, 1968, 1969, 1976; Black & Cox, 1973; Klinger, 1971; Tomkins, 1962) supported the need for additional factors, or even just different factors, for motivational prediction of everyday human behavior. Following Bindra's analysis, drive may be considered to perform two functions: to activate and to modify, even if only temporarily, the values of various incentives. Thus, both rats and people, when hungry, become more restless and give heightened priority to getting something to eat.

The concept of need (e.g., Heckhausen, 1991; McClelland et al., 1953; Murray, 1938) is similarly alive and well. It has evolved into a construct that summarizes the value that an individual typically places on a certain class of incentives (i.e., potential goals). For example, an individual who places relatively high intrinsic value on achievement incentives, such as winning races or intellectual contests or doing well in one's work, is said to have a high need for achievement. Thus, like drive, need in this sense plays a role largely in relation to incentive value, which is a crucial component in decision-making regarding which goals to pursue (see also Correia, Chapter 3, and Glasner, Chapter 2, this volume).

GOAL PURSUITS, TIME-BINDING, AND THE CONCEPT OF CURRENT CONCERN

Pursuing a goal imposes some complex requirements on an individual. The first of these is that the pursuit be represented somehow in the brain between beginning the pursuit and ending it—otherwise, there would be no memory of the pursuit, in which case the

individual would be distracted from it by every evocative stimulus that was encountered. Memory for the fact that one is pursuing a goal is an example of *prospective memory* (Brandimonte, Einstein, & McDaniel, 1996). When the memory is explicit and conscious, Kuhl (2000, 2001) calls it *intention memory*. However, goal pursuit requires more than a passive memory of the pursuit; it requires a continuing state of sensitization to stimuli relevant to the pursuit and readiness to act—to seize opportunities for attaining the goal. Furthermore, this state of sensitization needs to be an implicit, latent process; that is, the individual needs to be sensitized to goal-related cues and be ready to act even while not consciously thinking of the goal. Otherwise the goal pursuit would be very inefficient. As a later section of this chapter shows, there is now ample evidence confirming that goal pursuits are accompanied by a pervasive biasing of cognitive processing—attention, recall, and thought content—toward information associated with an individual's goal pursuits.

To give this hypothetical latent process a name, the construct of *current concern* refers to the state of an individual between two time points, the one of becoming committed to pursuing a particular goal and the other of either attaining the goal or giving up the pursuit. Because a current concern spans the duration of the pursuit and binds together psychological processes over that period, it constitutes a *time-binding* process.

It is worth reiterating two other properties of current concerns. First, there is a separate such process—a separate concern—corresponding to each goal. Second, it is a latent process, meaning that in and of itself it is not conscious. It certainly affects consciousness, and individuals are probably conscious of most, if not all, of the goals undergirded by their current concerns, but the concern construct refers to the underlying process, not just its conscious representation. The concept of current concern labels the process of having a goal.

Before and since the coining of the concept of current concern, other theorists have offered other, somewhat similar time-binding concepts. The concept of *Einstellung, Ustanovka*, or *set* (Ach, 1910; Uznadze, 1966), *intention* (e.g., Gollwitzer, 1990; Heckhausen & Kuhl, 1985; Irwin, 1971; Kaschel & Kuhl, Chapter 6, this volume; Kuhl, 2001), quasineed (Lewin, 1928), *force* (Lewin, 1938), and *personal project* (Little, 1983; Little & Chambers, Chapter 4, this volume) are all constructs with time-binding properties and have more or less overlap with the construct of current concern, but with variations in their theoretical properties. This is not the place for a detailed comparison of these constructs. The important point is that initiating a goal pursuit instates a persistent psychological process that influences cognition, action, and emotional response in ways that give the needs and course of the pursuit special priority.

Correspondingly, the concept of current concern provides a unifying framework for motivational processes in animal and human behavior and suggests important aspects of animal and human behavioral evolution. It also provides a useful framework for considering certain aspects of psychopathology and developing approaches to psychological intervention.

GOALS AND EMOTIONS

Goal pursuits are intimately and pervasively intertwined with emotions. Emotions play crucial roles in choosing goals, in assessing the pursuit of them, in steering cognitive processes within them, and in reacting to their outcomes. Subsequent sections of this chapter explore these propositions. The purpose of this section is to lay out the terrain and to examine some emotion-related concepts.

Emotions constitute states of organisms, directly or indirectly affecting virtually every process, psychological or biological. Emotional responses constitute changes in organismic states. They have long been recognized as components of instinctive behavior (e.g., Darwin, 1872/1985; McDougall, 1921) and as preparing an individual to act in particular ways. For example, participants were asked to look at letter strings on a screen and as quickly as possible either press a key (an approach response) or take their finger off a key (a withdrawal response) if the string was a word (Wentura, Rothermund, & Bak, 2000). Participants who were asked to press keys did so faster if the word was positively toned than if it was negatively toned, and those who were asked to withdraw their fingers did so faster if the word was negatively toned than if it was positively toned. The valences of the words presumably evoked incipient emotional responses, and these were evidently linked to a motor disposition to move accordingly—to approach positive things and withdraw from negative ones—that facilitated the corresponding acts of pressing or releasing a key on a keyboard.

Conversely, people were able to categorize or otherwise process emotionally positive words faster if they were flexing their arms or appeared to be approaching a computer screen, and they were able to process emotionally negative words faster if they were extending their arms or appeared to be receding from a computer screen (Neumann & Strack, 2000). Here the acts that physically represent approach (such as a flexed arm, often associated with bringing something closer) or an extended arm (as in pushing something away) appeared to facilitate dealing with the corresponding emotional information (positive and negative, respectively). Ideographs, which are presumably neutral stimuli to most American research participants, were evaluated more positively after association with arm flexion than after arm extension (Cacioppo, Priester, & Berntson, 1993). These three studies thus demonstrate the connections between emotional response and physical movement. Extensive evidence has also linked emotions to a wide range of neurohumoral states and immune function (e.g., Mayne, 2001). Emotions are thus much more than just the subjective feelings or the bodily sensations that people usually associate with them.

There are a number of other terms related to the term *emotion*, especially *feeling* and *affect*. Some writers use these synonymously with emotion, a few use affect to refer to physiological aspects of emotion, and some reserve feeling and affect for the conscious experience associated with emotion, in contrast to its physiological or nonconscious components. In this last usage, the term *emotion* includes affect and all of the many other components of emotion, for which there is no generally accepted separate term. This is the usage adopted here.

There is a growing consensus among emotion researchers (e.g., Cacioppo, Gardner, & Berntson, 1999; Kuhl, 2001; Watson et al., 1999) that the different emotions people feel can be organized within two dimensions or categories—that is, as either *positive* or *negative* affect. There is good reason to believe that these two dimensions correspond to separate reaction systems in the brain (Cacioppo, Gardner, & Berntson, 1999). When people experience positive affect, they feel pleasurably engaged with their environment; when they experience negative affect, they feel distressed and dissatisfied (Watson & Kendall, 1989).

An *affective change* is a change in affect from its present state. The change may be desirable (an increase in positive affect or a decrease in negative affect) or undesirable (a decrease in positive affect or an increase in negative affect). Affective change is a central motivational concept, because it is the ultimate essence of what people are motivated to achieve. As noted by innumerable writers from Aristotle (Stocker, 1996) onward, people

strive for things that will make them feel better, by either giving them pleasure or relieving their discomfort.

Beyond this truism, important as it is, research has uncovered a remarkable range of other ways in which changing from a positive to a negative affective state or vice versa influences basic psychological functions. The changes involve peripheral physiology, neurophysiology, types of cognitive processing, and even the ability to consult one's own values and to learn from experience (e.g., Kaschel & Kuhl, Chapter 6, this volume; Kuhl, 2000, 2001).

The relation between emotion and goal-striving has become progressively better documented. Affect constitutes a person's basic system for recognizing the value of something, both of potential goals (or, negatively, of impediments and threats) and of progress toward goals (Damasio, 1994; Klinger, 1977; Pervin, 1983). When people are asked to rate the intensity of the emotions that words arouse in them and how closely the words are associated with their goal pursuits, the correlations tend to be about .60 (Bock & Klinger, 1986; et al.). Of course, the affective and broader emotional responses that lead to evaluative judgments are generally embedded in a more complex process that includes other components. Some emotional responses are innately hard-wired to certain schematic features of stimuli and hence require a perceptual process; others are responses to conditioned stimuli, which requires a learning history, and still others depend on even more complex inferences about the significance of a stimulus. Nevertheless, the weight of evidence strongly suggests that it is the emotional response or an anticipated emotional response that determines the value of an incentive and the evaluation of anything as good or bad for oneself.

Not everything to which an individual responds emotionally becomes a goal, but it does constitute a potential goal. To provide a term for this larger class of potential goals, the term *incentive* refers to an object or event that a person expects will bring about an affective change. Corresponding to the two broad kinds of affect, incentives can be either positive or negative. People would like to acquire *positive* incentives that would enhance their positive affect. They would like to get rid of *negative* incentives that would increase their negative affect.

A *goal*, then, is a particular incentive that a person strives to attain. The object of every goal-striving is an incentive, something that people expect will cause desirable changes in their affect. However, for various reasons, people do not strive to attain all of the incentives that could potentially bring them the changes that they would like. For example, they might (a) feel that they do not know how to go about attaining the goal that they want, (b) imagine that doing so would also bring them unhappiness, (c) believe that they are unlikely to succeed, or (d) find that time constraints force a choice among alternatives. Goals, therefore, constitute a limited selection from among a person's incentives.

HOW GOAL PURSUITS BEGIN

Commitment

Goal pursuits generally have an identifiable beginning when the individual selects an incentive and forms an inner *commitment* to pursuing it as a goal. This commitment instates a current concern about the goal and constitutes an irreversible change, in the sense that the goal cannot be relinquished without a psychological cost, such as disappointment or

depression. Heckhausen and Gollwitzer (1987) have called this irreversibility the *Rubicon Effect*, an allusion to the irreversibility of Caesar's decision to cross the Rubicon River with his troops in an assault on rival forces before Rome. Having crossed, a painless retreat was no longer an option.

That commitments are discrete events is evident not only in the costs of relinquishment but also in the several changes that commitment to a goal produces. First, commitment to a goal changes the initial effects of sudden impediments; before commitment to a goal, impediments make pursuing the incentive as a goal less attractive, but after a commitment impediments initially lead to invigorated pursuit and deepened commitment (Klinger, 1975). Second, commitments also change *mind sets* (Gollwitzer, Heckhausen, & Steller, 1990). Before commitment, while the individual is still weighing alternatives and reserving the decision as to which incentive to pursue, the individual is in an *evaluative* mind set, characterized by relative objectivity about the alternatives and openness to a wide range of information. After commitment, the individual enters an *implemental* mind set characterized by partiality toward the chosen goal and a mental focus on the steps necessary to reach it. Third, as indicated in subsequent sections, the current concerns instated by commitments sensitize the individual to respond to cues associated with the goal pursuit.

Determinants of Commitment: Expectancy × Value Approaches

In any given circumstance, people are generally faced with choices of which incentives they will pursue. They face choices of playmates, careers or jobs, partners with whom to spend a coffee break or a lifetime, items on a restaurant menu, vacation destinations, whether to talk in class, and so on. Often one alternative is so much more attractive, or so much less unattractive, than the others that the individual may not feel as if there is a choice, but the choice is generally there.

If there is a choice, what determines which incentive the individual will choose as a goal? A long theoretical tradition in psychology and economics, which may loosely be termed *Value × Expectancy* formulations (e.g., Feather, 1982; Van Eerde & Thierry, 1996) holds that two important variables determine this choice: the value that the person attributes to each alternative incentive and the person's expectancy (subjective probability) of being able to attain it. In the simplest form of Value × Expectancy theory (which economists generally term *Subjective Expected Utility* theory), one multiplies the value by the expectancy of each alternative and predicts that the individual will choose the alternative yielding the highest product.

There are many elaborations, modifications, and qualifications of this approach, but its general outlines have survived. Although attempts to empirically test the nature of the relationship between value and expectancy remain inconclusive because of unresolved methodological problems (see Kuhl, 1986, pp. 409–410; Van Eerde & Thierry, 1996), the approach has proven useful in making concrete predictions of goal choice.

In terms of the motivational concepts described above, the value of each incentive—of each potential goal object—is the degree of affective change that the person expects to derive from it (Klinger, 1977; see also Loewenstein et al., 2001; Mellers, 2000). Insofar as an incentive has positive value, people expect that attaining it will increase their happiness more than their unhappiness, and they expect to experience sorrow if they fail to achieve

it. In other words, people attribute value to their goal objects on the basis of the potential emotional payoffs for them.

Among the complications in applying this approach is the matter of how to assess or predict value. For example, the incentive may be something of relatively low absolute value (for example, going to see a particular film), but if the cost of pursuing this incentive is also modest and attaining it is likely to bring positive emotion, there is a good chance that the individual will pursue it. Value must therefore be balanced against costs. Furthermore, the value of an incentive may depend on a variety of extrinsic components, in that it affects the ability to reach other goals. For example, becoming a physician may be a positive incentive for someone because the individual expects high social status, respect, and financial returns and becoming more competitive in the search for a desirable mate, in addition to the intrinsic pleasure of feeling needed and making an important contribution to society. These positive components will be offset to some extent by the costs, such as many years of arduous study, exploitation as a hospital resident, limited time for one's family, increasing bureaucratization of the profession, and legal risks. Thus, the final value of an incentive may be a complex resultant of numerous components.

According to this view, both value and expectancy must be substantial for people to pursue a goal. Even if people greatly value particular incentives, they will not be motivated to pursue them if they do not expect to succeed. Likewise, even if the chances of reaching particular goals are judged to be high, individuals will not be motivated to pursue them if they do not expect a suitable benefit. As the theoretical multiplicative relationship between value and expectancy indicates, the two variables should moderate each other, such that if either value or expectancy is at zero there will be no motivation to attain the goal, regardless of how high the other might be.

The most important point here is that expected emotional return is probably the prime determinant of whether a person becomes committed to pursuing a particular goal. However, there are a number of important qualifications to this generalization.

First, the extent to which people take probability of success and incentive value into account varies, both from person to person (e.g., Shah & Higgins, 1997) and from time to time. For example, people are more likely to pay attention to the incentive value (i.e., emotional payoff) of far-off incentives than of those in which success or failure would be imminent, and more attention to probability of success for imminent incentives (Liberman & Trope, 1998).

Second, people often miscalculate their future emotional reactions to a particular event, which should theoretically distort their valuations. Thus, one's present state colors estimates of future emotion, especially when one is cognitively overloaded or if the future event is not specified with respect to the time of its occurrence (Gilbert, Gill, & Wilson, 2002).

Furthermore, people underestimate their future liking for things if they believe that once they receive them they will no longer be able to change their choice (Gilbert & Ebert, 2002). They tend to overestimate the intensity (Wilson, Meyers, & Gilbert, 2001) and duration (Gilbert et al., 1998; Wilson et al., 2000) of future emotional reactions to both positive and negative events. These distortions are reduced by having people consider in greater detail the context of their activities and lives at and after the time of the future event whose impact they are forecasting (Gilbert, Gill, & Wilson, 2002; Wilson et al., 2000), as well as reflecting on their inner emotional coping skills for reducing negative affect (Gilbert et al., 1998).

Finally, people are often willing to settle for good enough rather than insisting on getting the very best alternative. This is called *satisficing* (e.g., Gigerenzer & Goldstein, 1996; Schwartz et al., 2002; Simon, 1956). Nevertheless, despite all these qualifications, expected emotional gain remains the most reliable determinant of goal choice.

The Value × Expectancy framework has a number of implications for motivational counseling. For example, a depressed or substance-abusing client may be forgoing potentially satisfying nonsubstance incentives because of pessimism about being able to attain them. Depression lowers incentive values (see Klinger, 1993, for a review), which makes most incentives less attractive; and conflicts among goals (Michalak, Heidenreich, & Hoyer, Chapter 5, this volume) reduce their attractiveness, which further discourages people from pursuing them. Substance use competes with nonsubstance incentives and may be chosen if the nonsubstance incentives are sufficiently unattractive (Correia, Chapter 3, this volume; Cox & Klinger, Chapter 7, this volume; Glasner, Chapter 2, this volume). Sufficient lack of interest in earthly satisfactions may dispose people toward suicide (e.g., King et al., 2001; Klinger, 1977; Snyder, 1994; Williams, 1997). Here, motivational interventions to revalue incentives and instill reality-based optimism can change the balance of motivational structure and hence clients' behavior (Snyder, 1994—see also, in this volume: Cox & Klinger, Chapter 11; de Jong-Meyer, Chapter 13; Jones, Chapter 19; McMurran, Chapter 16; Miranti & Heinemann, Chapter 15; Roberson & Sluss, Chapter 14; Schoer, Fuhrmann, & de Jong-Meyer, Chapter 12; and Willutzki & Koban, Chapter 17).

HOW GOAL PURSUITS UNFOLD

The course of a goal pursuit can be thought of in terms of control theory (Carver & Scheier, 1998). There is a feed-forward component, in that the goal sets up criteria for the priority the individual will place on processing various future stimuli, as well as some specifications on how the individual will respond. Having decided to pursue a particular goal, a person becomes sensitized to respond to stimuli associated with that goal pursuit (Klinger, 1971, 1975, 1977, 1996b). The stimuli—*cues*—may be external (e.g., words or pictures related to the goal pursuit) or internal (e.g., thoughts or mental images related to the goal pursuit). Sensitization means that encountering one of these cues increases the likelihood of responding to them—with goal-directed actions if that seems appropriate or, more often, with mental activity such as the thoughts and mental images of mind-wandering. People are more likely to recall such cues and to think about them than they are to recall and think about other cues. Response is often extremely fast, making it clear that goal-related cues receive high priority in cognitive processing.

There is also a feedback component to goal pursuits (e.g., Carver & Scheier, 1998; Klinger, 1977). People continuously monitor the extent to which their thoughts and actions are advancing them toward their goals. If the feedback is favorable, they proceed according to plan; if the feedback is unfavorable, indicating that what they are doing is not helping as much as planned, they may adjust their actions to obtain better results. An important part of this feedback process—its evaluative component—is emotional. Positive emotions in reaction to events signal that the goal pursuit is on course; negative emotions—especially fear and depression—signal imminent or actual failures. This emotional component may occur before the person consciously recognizes what is going on (e.g., Winkielmann, Zajonc, & Schwarz, 1997; Zajonc, 1980).

Effects on Attention, Memory, Recall, Dreams, and Action

The evidence for the effects of current concerns on cognition is by now very strong. Initial investigations of this model asked participants to listen to series of two different but similar, simultaneous, 15-minute narratives on audiotape, one narrative to each ear. At particular time points, they heard passages in one ear that were associated with their own concerns, and, simultaneously, passages going to the other ear that were related to another's concerns. Participants spent significantly more time listening to passages associated with their own concerns than to the other's, recalled those passages much more often, and had thought content that (by ratings of blind judges) was much more often related to them (Klinger, 1978).

Automaticity of the Effects

Subsequent studies of both waking and sleeping participants indicated that these effects are apparently nonconscious and automatic rather than attributable to a conscious process, such as deliberately focusing on concern-related stimuli. In fact, concern-related stimuli seem to impose an extra cognitive-processing load even when they are peripheral and participants are consciously ignoring them (Young, 1987); when asked to judge as quickly as possible whether a string of letters on a screen constitutes a word, these apparently irrelevant distractor stimuli nevertheless slow the lexical decisions about the target words. Similar effects have been shown in yet another cognitive process, Stroop and quasi-Stroop procedures. In these procedures, people are presented with words on a screen and instructed to name the font color of the words as quickly as possible. Participants in these experiments name font colors more slowly when the words are related to one of their own concerns than when they are not (Bauer & Cox, 1998; Cox, Blount, & Rozak, 2000; Cox, Brown, & Rowlands, in press; Cox, Yeates, & Regan, 1999; Cox et al., 2002; Johnsen et al., 1994; Riemann, Amir, & Louro, 1995; Riemann & McNally, 1995; Sharma, Albery, & Cook, 2001; Stetter et al., 1995; Stormark et al., 1995, 2000; Williams, Mathews, & MacLeod, 1996). This slowing of response suggests that the brain gives processing priority to the concern-related features of the stimulus words, which defers the processing of other features and therefore slows judgments about these other features. Even when people are asleep, concern-related stimuli influence dream content much more reliably than do other stimuli (Hoelscher, Klinger, & Barta, 1981; Nikles et al., 1998). Taken together, these results confirm that the effects of concern-related cues on cognitive processing are substantially automatic and probably inexorable.

Goal-related cues, even nonconscious ones, also appear to exert automatic effects on goal-directed actions. A series of investigations (Bargh et al., 2001; Chartrand & Bargh, 1996, 2002) has shown that exposing participants to priming cues related to a particular goal influences how they perform on subsequent laboratory tasks. For example, when participants performed a first task that included unobtrusively embedded words related to achievement (versus receiving achievement-unrelated words), they performed better on a different second task, persisted longer, and were more likely to resume it if interrupted (Bargh et al., 2001). This was true even though no participant knew the true connection between the first and second tasks, meaning that the effect was probably nonconscious and in this sense automatic. Thus, nonconscious cues can affect performance in ways similar to the established effects

(e.g., Locke, 1968, 2001) of setting conscious performance goals for oneself. Priming cues related to cooperation also had a comparable effect on participants' cooperative behavior (Chartrand & Bargh, 1996), showing that these effects are not restricted to just one kind of behavior.

Emotions and Attentional Processing

A number of indications from these and other data (e.g., Klinger, Barta, & Maxeiner, 1980) suggest that a critical property of current concerns is to dispose individuals to respond emotionally to cues associated with corresponding goal pursuits. The emotional response then induces a number of levels of cognitive processing, ending, at least under some conditions, with conscious thought. Because this hypothesis is hard to test with naturally occurring thought flow, the investigations to which it gave rise addressed effects on attention, recall, and physiological variables.

A reaction-time experiment (Schneider, 1987) produced effects of emotionally evocative cues (which participants were instructed to ignore) on choice reaction time similar to those obtained with current-concern-related words by Young (1987). Furthermore, participants who scored high on the Affective Intensity Measure (Larsen & Diener, 1987) were slowed by emotionally arousing distractors significantly more than other participants. Data also link current concerns to electrodermal responses of the kind often identified as orienting responses, and they link spontaneous electrodermal activity to current-concern-related ideation (Nikula, Klinger, & Larson-Gutman, 1993).

Emotions and Recall

Emotional arousingness of words also affects recall. Words rated by participants as either relatively emotionally arousing or concern-related were later recalled significantly more often than other words (Bock & Klinger, 1986; Klinger et al., in preparation). Concern-relatedness and emotional arousal value were strongly intercorrelated. Partialing emotionality and concern-relatedness of words out of each other suggested that much of the effect of current concerns on recall is mediated by the emotional responses that the concerns largely potentiated. This interpretation is consistent with other findings that people experience more emotion in relation to those autobiographical memories that are most closely associated with current goal pursuits and longer-term personal strivings (Singer & Salovey, 1993). Chemically impairing the ability to respond emotionally reduces recall of emotionally toned stimuli (Cahill et al., 1994).

These findings help to make sense of some other results in the literature, in which stimuli that arouse emotion facilitate cognitive processing of them when the stimuli are central to a task at hand and interfere with cognitive processing when the stimuli are distractors (see Klinger, 1996b, for a review). Close examination of procedures used in such studies suggests that people respond to cues as emotionally arousing insofar as the cues are related to current concerns. Thus, patients suffering from social phobias attend differentially more to socially threatening stimuli than to physically threatening ones, whereas people fearful of physical harm attend to the latter more than the former (Mogg, Mathews, & Eysenck, 1992; Williams, Mathews, & MacLeod, 1996).

Conclusion

In conclusion, then, having a goal sensitizes a person to respond to goal-related cues, one effect of which is to keep drawing the individual's perceptions, memories, thoughts, dreams, and actions back to the goal pursuit. Furthermore, the person's emotional reactions, whether of joy, fear, anger, or sadness, depend substantially on what is happening to the individual's goal pursuits. Taken together, these effects mold people's inner worlds around their individual sets of goals. If one placed two individuals into the identical objective world but with different sets of current concerns, they would experience quite different subjective worlds. What they would notice, recall, and think would be quite different, they would react with different emotions, and they would correspondingly act quite differently, which in turn would result in creating for them different objective circumstances.

These connections between goals on the one hand and perception, cognition, emotion, and action on the other are important points to remember in providing counseling. Apart from organic disorders, such as psychosis and brain damage, troublesome cognitions, emotions, and actions are tied to troubled goal pursuits. Whether the problem is rumination, boredom, depression, anxiety, or substance use, effective intervention requires examining and intervening in the related goal pursuits.

Other Influences on Goal Pursuits

A number of variables besides those already described also affect the level and quality of the motivation to pursue a goal. These and other aspects of motivated behavior are taken into account in the techniques for assessing motivation presented in Chapter 8.

Approach versus Avoidance Goals

One such variable is the valence of the desired goal object—whether it is positive or negative. There is growing evidence that positive and negative goals involve different neural systems for, respectively, approach and avoidance (e.g., Cacioppo, Gardner, & Berntson, 1999; Carver & Scheier, 1998; Watson et al., 1999). These different systems are associated with different effects on emotion, motivation, and health. Thus, people striving to achieve positive (*approach*) goals such as gaining a job promotion or better health are more likely to do so for the intrinsic value of the goal (Elliot & Harackiewicz, 1996) and less likely to experience negative feelings, poor health, or a negative outlook on themselves, than do people who are motivated more by a desire to avoid negative consequences (*avoidance goals*), as in striving not to be fired, not to become ill, or to rid oneself of negative incentives by which one feels burdened, such as a poor marriage or loud neighbors (Elliot & Church, 2002; Elliot & Sheldon, 1998).

However, these deleterious effects of avoidance goals may apply only to individuals with an independent outlook, which, on average, includes Americans and other Westerners; they appear not to apply to people with an interdependent outlook, such as, on average, residents of Asian countries (Elliot et al., 2001). This cultural difference aside, it may be beneficial for motivational counselors to help clients to reframe their avoidance goals into approach terms. For example, avoiding illness can be reframed as maintaining health; avoiding arguments

with one's spouse can be reframed as improving one's marital relationship (see also Elliot & Church, 2002; Willutzki & Koban, Chapter 17, this volume).

There are important individual differences in the strength of these two hypothetical approach and avoidance systems. Some individuals respond more readily to approach goals, are more likely to experience positive emotions, and in these senses are said to be more *reward-dependent* (e.g., Cloninger, Svrakic, & Przybeck, 1993) or *reward-sensitive*, a characteristic that may be part of the essence of extraversion (Lucas et al., 2000). This difference among individuals is reflected in the different values that different people place on the same objective incentives and hence in their different choices of goals and other decisions.

Time Frame

The time course of the goal pursuit is another important consideration. Motivation is likely to be stronger when people pursue goals (or subgoals) that are achievable in the relatively near future, rather than having to wait far into the future to gain a sense of accomplishment (Miller, 1944). Breaking long-term goal pursuits into a tangible series of attainable nearer-term subgoal pursuits may improve motivation for staying on course.

Goal Conflicts

Yet another consideration is the impact that pursuing one goal will have on other goals for which one is striving (see Michalak, Heidenreich, & Hoyer, Chapter 5, this volume). For example, if one important goal interferes with the achievement of another one, the resulting conflict is bound to dampen the motivation to achieve either goal. People with more than average numbers of conflicts among their goals also experience more negative affect and poorer health (Emmons & King, 1988). Goal conflicts are necessarily an important target of counseling interventions.

Specificity of Intentions

People vary in regard to how concretely they imagine their goal pursuits. Sometimes they focus mainly on the end result—what it will be like and how it will feel to achieve the goal. Musing about the consummation of a romantic relationship or of a business deal can both be pleasant experiences. However, people are more likely to carry out their intended goal pursuits if they also imagine the steps necessary to reach their goals (e.g., Brandstaetter, Lengfelder, & Gollwitzer, 2001; Gollwitzer, 1999; Snyder, 1994) and take into account the difficulties before them (Oettingen, Pak, & Schnetter, 2001), especially if the goals also fit well with the individual's core values (Koestner et al., 2002). Counseling interventions can be targeted toward helping clients to form adequate conceptions of their goal pursuits so as to improve the quality of their tactics for attaining their goals (Cox & Klinger, Chapter 11, this volume).

HOW GOAL PURSUITS END

All goal pursuits must end, whether by reaching the goal, or by relinquishing it. Attaining a goal, especially an important goal that has many ramifications for one's future life, generally evokes some combination of joy, gratification, contentment, and pride. One marries, obtains a college degree, gets a desired job, buys a lovely house, or finds spiritual fulfillment. Attaining the goal ends the pursuit and deactivates the current concern. It is clearly the nice way for goal pursuits to end.

Unfortunately, life is rarely so kind as to spare people at least some failures. The relationship ends or the partner dies, the job goes to someone else, or the stock market collapses and takes one's savings with it. Obstacles to goal pursuits unleash a regular sequence of events, an *incentive-disengagement cycle* (Klinger, 1975, 1977). When the obstacle first arises, the effect is to invigorate goal-directed action. One tries harder, rethinks, tries alternatives, seeks help. If these tactics fail, invigoration turns to anger and possibly aggression. If this also fails to avert the obstacle, the individual experiences a souring of mood that can range from disappointment to depression. There is often a reduced interest in other pursuits (Klinger, 1993), lassitude, and fatigue. Eventually, the individual recovers from the failure or loss and returns to baseline levels of mood and activity. This may take from minutes to years, depending on the scale of the failure.

Although there are wide variations in the strength of these effects, they appear nearly universal, even when there is no apparent point to them. Thus, when someone learns that a loved one has unexpectedly died, the first reaction is often disbelief, checking on the accuracy of the report, and ascertaining that nothing can be done. This is often followed by anger and blame toward the departed, caretakers, medical personnel, relatives, or oneself. Then come the grieving and eventually the recovery.

When the cycle has run its course, the person is largely freed to go on to other things. The failed goal ceases to be a goal. However, its representation in the brain remains. Disengagement is almost certainly not a process of forgetting or deleting the goal but rather one of inhibiting responses to all but the most central cues associated with it. The failure or loss lives on, even though deeply suppressed. Thus, parents who have lost children never fully recover from the loss, at least for the several years that such losses have been followed up (Lehman, Wortman, & Williams, 1987).

Very likely, the reaction to failure or loss is a form of extinction, which has been studied extensively in this regard, especially in animals (Hutchinson, 1973; Lewinsohn, 1974). Extinction, which results from withholding reward that the animal had previously regularly experienced, also leads to a cycle of invigoration and depressed activity followed by recovery (e.g., Klinger, Kemble, & Barta, 1974; Lewis et al., 1992). Furthermore, the goal-striving is rapidly reinstated when the reward is again made available (e.g., Nakajima et al., 2000; Toyomitsu et al., 2002), suggesting that the previous extinction of response was by inhibition rather than deletion (see also Bouton & Swartzentruber, 1989).

These concepts of incentive-disengagement and extinction are important considerations in counseling depressed clients. Within limits, depression is a normal reaction to failure and loss. Individual differences in emotional responsiveness and in the ability to down-regulate negative affect (Kuhl, 2000, 2001; see also Kaschel & Kuhl, Chapter 6, this volume) may lead to psychopathological levels of depression. Nevertheless, it would appear to remain crucial for counselors and psychotherapists to work with the client's motivational structure,

along with applying other well-established cognitive and interpersonal approaches (e.g., Beck, Rush, & Emery, 1979; Teasdale, Segal, & Williams, 1995; Teasdale et al., 2000) in treating depression. Chapters 11 to 24 of this volume describe the various motivational techniques in greater detail.

INCENTIVES, GOALS, WELL-BEING, AND THE SENSE THAT ONE'S LIFE IS MEANINGFUL

Perhaps the broadest measure of an individual's subjective success in life is the person's global sense of well-being (Kahneman, 1999). Another—closely correlated (Wong, 1998)— is the sense that one's life is meaningful. Both are closely related to having a range of satisfying personal goals and making reasonable progress toward attaining them (Brunstein, 1993; Klinger, 1977, 1998).

Any integration of past research on subjective well-being, or of the sense that one's life is meaningful, is bound to find that both depend substantially on people's perceptions that they have important goals and are progressing satisfactorily toward them. For example, most people place high value on finding and maintaining close relationships (Baumeister & Leary, 1995), and attaining these interpersonal goals is strongly related to their sense of well-being (Myers, 1999). Similarly, satisfaction with one's work, which subsumes another major set of personal goals, is related to the extent that the workplace fosters an employee's attainment of work-related and work-affected goals (Roberson, 1989; Roberson & Sluss, Chapter 14, this volume; Warr, 1999). Having a sense of interpersonal support in one's goal pursuits enhances well-being; a sense of others hindering one's goal pursuits detracts from well-being (Palys & Little, 1983; Ruehlman & Wolchik, 1988).

What is important in determining subjective well-being is a sense of progressing toward one's personal goals (Diener & Fujita, 1995), whatever they may be. By contrast, objective indices of personal resources and circumstances, such as income, education, and marital status, correlate rather poorly with subjective well-being. Similarly, a long-term longitudinal study (Halisch & Geppert, 1998) has found that life satisfaction and well-being depend on having goals that are attainable, and this is especially true for people highly committed to them. Mood was lower in the absence of affiliative and, for men, power-related activity.

However, not all personal goals carry equal weight in well-being. For example, progress on goals imposed by others or suggested by social pressures boost subjective well-being less than goals that correspond to one's individual core values (Brunstein, Schultheiss, & Graessman, 1998; Sheldon, 2001; Sheldon & Elliot, 1999). This suggests a point of departure for psychological intervention: assessing the self-concordance of a client's goals and modifying or eliminating those at variance with the client's core values.

There are also other important factors that moderate the relation of goal pursuits to subjective well-being. For example, some individuals (*state-oriented*) have more difficulty than other people in distinguishing self-chosen goals from goals suggested by others (Kuhl & Kazén, 1994; see also Kaschel & Kuhl, Chapter 6, this volume). Under pressure, they may be less able to discern their own values and interests in a situation and hence strive for suboptimally fulfilling goals. Individual differences in emotional response dispositions, partially described above, can determine the extent to which people pursue goals and the

extent to which they derive satisfaction from them. These findings, too, suggest possible foci for psychological intervention.

Furthermore, a large proportion of the variance in subjective well-being can be accounted for by genetics (Lykken, 1999; Lykken & Tellegen, 1996). The genetic factors may, however, exert some of their effect through their influence on an individual's readiness to commit to positive goals and to reap the emotional gain from attaining them. Thus, to declare the disposition to subjective well-being to be heritable is not necessarily to gainsay its relation to goal pursuit. It would also be mistaken to conclude that its heritability prevents intervention from improving the individual's motivational structure and, with it, subjective well-being. Genes provide an input whose ultimate results depend on their interaction with the environment. Intervention can be part of that environment.

A substantial literature relates subjective well-being and the sense that one's life is meaningful to psychopathology and substance use (Baumeister, 1991; Cox & Klinger, 1988; Klinger, 1977, 1998—see also, in this volume: Correia, Chapter 3; Cox & Klinger, Chapter 7; and Glasner, Chapter 2). For example, a substantial student sample produced a correlation of $-.46$ between a rating of their lives' meaningfulness and depression scores (Klinger, 1977). In two samples of adolescents and young adults, Newcomb and Harlow (1986) found low-order but significant relationships between substance use and lacking direction, plans, or solutions. In a comparison of Czech students and demographically rather similar nonstudent alcoholic patients (Man, Stuchlíková, & Klinger, 1998), the clinical group listed 40% fewer goals, responded as if they needed richer incentives to form strong commitments to goal-striving, displayed marginally less average commitment to their goals, and, after other variables had been partialled out, expressed less ability to influence the course of goal attainment. These correlational findings cannot establish cause and effect, but, when combined with experimental studies of extinction, loss, and failure, it seems likely that goal pursuits affect moods and at least some forms of psychopathology.

Accordingly, efforts to modify clients' motivational structure form a promising avenue to clinical effectiveness with a variety of disorders and discontents. These methods form the focus of Parts III and IV of this volume.

REFERENCES

Ach, N. (1910). *Über den Willensakt und das Temperament*. Leipzig: Van Quelle & Meyer.

Allport, G.W. (1937). *Personality: A psychological interpretation*. New York: Holt, Rinehart & Winston.

Bargh, J.A., Gollwitzer, P.M., Lee-Chai, A., Barndollar, K., & Trötschel, R. (2001). The automated will: Nonconscious activation and pursuit of behavioral goals. *Journal of Personality and Social Psychology, 81*, 1014–1027.

Bauer, D., & Cox, W.M. (1998). Alcohol-related words are distracting to both alcohol abusers and non-abusers in the Stroop colour naming task. *Addiction, 93*, 1539–1542.

Baumeister, R.F. (1991). *The meanings of life*. New York: Guilford.

Baumeister, R.G., & Leary, M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497–529.

Bechara, A., Damasio, H., Tranel, D., & Damasio, A.R. (1997). Deciding advantageously before knowing the advantageous strategy. *Science, 275*, 1293–1294.

Bechara, A., Tranel, D., & Damasio, A.R. (2000). Characterization of the decision-making deficit of patients with ventromedial prefrontal cortex lesions. *Brain, 123*, 2189–2202.

Beck, A.T., Rush, A.J., & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford.

Bindra, D. (1968). Neuropsychological interpretation of the effects of drive and incentive-motivation on general activity and instrumental behavior. *Psychological Review, 75*, 1–22.

Black, R.W. (1965). On the combination of drive and incentive motivation. *Psychological Review, 72*, 310–317.

Black, R.W. (1968). Shifts in magnitude of reward and contrast effects in instrumental and selective learning: A reinterpretation. *Psychological Review, 75*, 114–126.

Black, R.W. (1969). Incentive motivation and the parameters of reward in instrumental conditioning. In W.J. Arnold & D. Levine (Eds.), *Nebraska symposium on motivation* (pp. 85–141). Lincoln: University of Nebraska Press.

Black, R.W. (1976). Reward variables in instrumental conditioning: A theory. In G.H. Bower (Ed.), *The psychology of learning and motivation* (pp. 199–244). New York: Academic Press.

Black, R.W., & Cox, W.M. (1973). Extinction of an instrumental running response in rats in the absence of frustration and nonreinforcement. *Psychological Record, 23*, 101–109.

Bock, M., & Klinger, E. (1986). Interaction of emotion and cognition in word recall. *Psychological Research, 48*, 99–106.

Bouton, M.E., & Swartzentruber, D. (1989). Slow reacquisition following extinction: Context, encoding, and retrieval mechanisms. *Journal of Experimental Psychology: Animal Behavior Processes, 15*, 43–53.

Brandimonte, M., Einstein, G.O., & McDaniel, M.A. (Eds.) (1996). *Prospective memory: Theory and applications* (pp. 53–91). Hillsdale, NJ: Erlbaum.

Brandstaetter, V., Lengfelder, A., & Gollwitzer, P.M. (2001). Implementation intentions and efficient action initiation. *Journal of Personality and Social Psychology, 81*, 946–960.

Brunstein, J.C. (1993). Personal goals and subjective well-being: A longitudinal study. *Journal of Personality and Social Psychology, 65*, 1061–1070.

Brunstein, J.C., Schultheiss, O.C., & Graessman, R. (1998). Personal goals and emotional well-being: The moderating role of motive dispositions. *Journal of Personality and Social Psychology, 75*, 494–508.

Cacioppo, J.T., Gardner, W.L., & Berntson, G.G. (1999). The affect system has parallel and integrative processing components: Form follows function. *Journal of Personality and Social Psychology, 76*, 839–855.

Cacioppo, J.T., Priester, J.R., & Berntson, G.G. (1993). Rudimentary determinants of attitudes. II: Arm flexion and extension have different effects on attitudes. *Journal of Personality and Social Psychology, 65*, 5–17.

Cahill, L., Prins, B., Weber, M., & McGaugh, J.L. (1994). Beta-adrenergic activation and memory for emotional events. *Nature, 371*, 702–704.

Carver, C.S., & Scheier, M.F. (1998). *On the self-regulation of behavior*. Cambridge, UK: Cambridge University Press.

Chaplin, J.P. (1968). *Dictionary of psychology*. New York: Dell.

Chartrand, T.L., & Bargh, J.A. (1996). Automatic activation of impression formation and memorization goals: Nonconscious goal priming reproduces effects of explicit task instructions. *Journal of Personality and Social Psychology, 71*, 464–478.

Chartrand, T.L., & Bargh, J.A. (2002). Nonconscious motivations: Their activation, operation, and consequences. In A. Tesser & D.A. Stapel (Eds.), *Self and motivation: Emerging psychological perspectives* (pp. 13–41). Washington, DC: American Psychological Association.

Cloninger, C.R., Svrakic, D.M., & Przybeck, T.R. (1993). A psychobiological model of temperament and character. *Archives of General Psychiatry, 50*, 975–990.

Cox, W.M., Blount, J.P., & Rozak, A.M. (2000). Alcohol abusers' and nonabusers' distraction by alcohol and concern-related stimuli. *American Journal of Drug and Alcohol Abuse, 26*, 489–495.

Cox, W.M., Brown, M.A., & Rowlands, L.J. (in press). The effects of alcohol cue exposure on non-dependent drinkers' attentional bias for alcohol-related stimuli. *Alcohol and Alcoholism.*

Cox, W.M., Hogan, L.M., Kristian, M.R., & Race, J.H. (2002). Alcohol attentional bias as a predictor of alcohol abusers' treatment outcome. *Drug and Alcohol Dependence, 68*, 237–243.

Cox, W.M., & Klinger, E. (1988). A motivational model of alcohol use. *Journal of Abnormal Psychology, 97*, 168–180.

Cox, W.M., Yeates, G.N., & Regan, C.M. (1999). Effects of alcohol cues on cognitive processing in heavy and light drinkers. *Drug and Alcohol Dependence, 55*, 85–89.

Damasio, A.R. (1994). *Descartes' error: Emotion, reason, and the human brain*. New York: Avon.

Darwin, C. (1872/1985). *The expression of the emotions in man and animals*. Chicago: University of Chicago Press.

Diener, E., & Fujita, F. (1995). Resources, personal strivings, and subjective well-being: A nomothetic and idiographic approach. *Journal of Personality and Social Psychology, 68*, 926–935.

Elliot, A.J., Chirkov, V.I., Kim, Y., & Sheldon, K.M. (2001). A cross-cultural analysis of avoidance (relative to approach) personal goals. *Psychological Science, 12*, 505–510.

Elliot, A.J., & Church, M.A. (2002). Client articulated avoidance goals in the therapy context. *Journal of Counseling Psychology, 49*, 243–254.

Elliot, A.J., & Harackiewicz, J. (1996). Approach and avoidance achievement goals and intrinsic motivation. *Journal of Personality and Social Psychology, 70*, 461–475.

Elliot, A.J., & Sheldon, K.M. (1998). Avoidance personal goals and the personality–illness relationship. *Journal of Personality and Social Psychology, 75*, 1282–1299.

Emmons, R.A., & King, L.A. (1988). Conflict among personal strivings: Immediate and long-term implications for psychological and physical well-being. *Journal of Personality and Social Psychology, 54*, 1040–1048.

Feather, N.T. (Ed.) (1982). *Expectations and actions: Expectancy-value models in psychology*. Hillsdale, NJ: Erlbaum.

Ferguson, E. (1994). Motivation. In R.J. Corsini (Ed.), *Encyclopedia of psychology* (Vol. 2; 2nd edn. p. 429). New York: John Wiley & Sons.

Gigerenzer, G., & Goldstein, D.G. (1996). Reasoning the fast and frugal way: Models of bounded rationality. *Psychological Review, 103*, 650–669.

Gilbert, D.T., & Ebert, J.E.J. (2002). Decisions and revisions: The affective forecasting of changeable outcomes. *Journal of Personality and Social Psychology, 82*, 503–514.

Gilbert, D.T., Gill, M.J., & Wilson, T.D. (2002). The future is now: Temporal correction in affective forecasting. *Organizational Behavior and Human Decision Processes, 88*, 430–444.

Gilbert, D.T., Pinel, E.C., Wilson, T.D., Blumberg, S.J., & Wheatley, T.P. (1998). Immune neglect: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology, 75*, 617–638.

Gollwitzer, P.M. (1990). Action phases and mind-sets. In E.T. Higgins & R.M. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (Vol. 2; pp. 53–92). New York: Guilford.

Gollwitzer, P.M. (1999). Implementation intentions: Strong effects of simple plans. *American Psychologist, 54*, 493–503.

Gollwitzer, P.M., Heckhausen, H., & Steller, B. (1990). Deliberative and implemental mind-sets: Cognitive tuning toward congruous thoughts and information. *Journal of Personality and Social Psychology, 59*, 1119–1127.

Halisch, F., & Geppert, U. (1998). *Motives, personal goals, and life satisfaction in old age: First results from the Munich Twin Study (GOLD)*. Munich, Germany: Max Planck Institute for Psychological Research.

Heckhausen, H. (1967). *The anatomy of achievement motivation*. New York: Academic Press.

Heckhausen, H. (1991). *Motivation and action*. Berlin: Springer.

Heckhausen, H., & Gollwitzer, P.M. (1987). Thought contents and cognitive functioning in motivational and volitional states of mind. *Motivation and Emotion, 11*, 101–120.

Heckhausen, H., & Kuhl, J. (1985). From wishes to action: The dead ends and short cuts on the long way to action. In M. Frese & J. Sabini (Eds.), *Goal-directed behavior: Psychological theory and research on action* (pp. 134–160). Hillsdale, NJ: Erlbaum.

Hoelscher, T.J., Klinger, E., & Barta, S.G. (1981). Incorporation of concern- and nonconcern-related verbal stimuli into dream content. *Journal of Abnormal Psychology, 49*, 88–91.

Hull, C.L. (1952). *A behavior system*. New Haven: Yale University Press.

Hutchinson, R.R. (1973). The environmental causes of aggression. In J.K. Cole & D.D. Jensen (Eds.), *Nebraska Symposium on Motivation, 1972* (pp. 155–181). Lincoln, Nebraska: University of Nebraska Press.

Irwin, F.W. (1971). *Intentional behavior and motivation: A cognitive theory*. New York: Lippincott.

Jackson, D.N., Ahmed, S.A., & Heapy, N.A. (1976). Is achievement a unitary construct? *Journal of Research in Personality, 10*, 1–21.

Johnsen, B.H., Laberg, J.C., Cox, W.M., Vaksdal, A., & Hugdahl, K. (1994). Alcoholics' attentional bias in the processing of alcohol-related words. *Psychology of Addictive Behaviors, 8*, 111–115.

Kahneman, D. (1999). Objective happiness. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 3–25). New York: Russell Sage Foundation.

Kasser, T., & Ryan, R.M. (2001). Be careful what you wish for: Optimal functioning and the relative attainment of intrinsic and extrinsic goals. In P. Schmuck & K.M. Sheldon (Eds.), *Life goals and well-being: Towards a positive psychology of human striving* (pp. 116–131). Seattle, Washington: Hogrefe & Huber.

King, R.A., Schwab-Stone, M., Flisher, A.J., Greenwald, S., Kramer, R.A., Goodman, S.H., Lahey, B.B., Shaffer, D., & Gould, M.S. (2001). Psychosocial and risk behavior correlates of youth suicide attempts and suicidal ideation. *Journal of the American Academy of Child and Adolescent Psychiatry, 40*, 837–846.

Klinger, E. (1971). *Structure and functions of fantasy*. New York: John Wiley & Sons.

Klinger, E. (1975). Consequences of commitment to and disengagement from incentives. *Psychological Review, 82*, 1–25.

Klinger, E. (1977). *Meaning and void: Inner experience and the incentives in people's lives*. Minneapolis: University of Minnesota Press.

Klinger, E. (1978). Modes of normal conscious flow. In K.S. Pope & J.L. Singer (Eds.), *The stream of consciousness: Scientific investigations into the flow of human experience* (pp. 225–258). New York: Plenum.

Klinger, E. (1993). Loss of interest. In C.G. Costello (Ed.), *Symptoms of depression* (pp. 43–62). New York: John Wiley & Sons.

Klinger, E. (1996a). The contents of thoughts: Interference as the downside of adaptive normal mechanisms in thought flow. In I.G. Sarason, B.R. Sarason, & G.R. Pierce (Eds.), *Cognitive interference: Theories, methods, and findings* (pp. 3–23). Hillsdale, NJ: Erlbaum.

Klinger, E. (1996b). Emotional influences on cognitive processing, with implications for theories of both. In P. Gollwitzer & J.A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 168–189). New York: Guilford.

Klinger, E. (1998). The search for meaning in evolutionary perspective and its clinical implications. In P.T.P. Wong & P.S. Fry (Eds.), *The human quest for meaning: A handbook of psychological research and clinical applications* (pp. 27–50). Mahwah, NJ: Erlbaum.

Klinger, E., Barta, S.G., & Maxeiner, M.E. (1980). Motivational correlates of thought content frequency and commitment. *Journal of Personality and Social Psychology, 39*, 1222–1237.

Koestner, R., Lekes, N., Powers, T.A., & Chicoine, E. (2002). Attaining personal goals: Self-concordance plus implementation intentions equals success. *Journal of Personality and Social Psychology, 83*, 231–244.

Klinger, E., Kemble, E.D., & Barta, S.G. (1974). Cyclic activity changes during extinction in rats: A potential model of depression. *Animal Learning and Behavior, 2*, 313–316.

Kuhl, J. (1986). Motivation and information processing: A new look at decision making, dynamic change, and action control. In R.M. Sorrentino & E.T. Higgins (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (pp. 404–434). New York: Guilford.

Kuhl, J. (2000). A functional-design approach to motivation and self-regulation: The dynamics of personality systems and interactions. In M. Boekaerts, P.R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 111–169). San Diego: Academic Press.

Kuhl, J. (2001). *Motivation und Persönlichkeit: Interaktion psychischer Systeme* (Motivation and personality: Interaction of psychological systems). Göttingen: Hogrefe.

Kuhl, J., & Kazén, M. (1994). Self-discrimination and memory: State orientation and false self-ascription of assigned activities. *Journal of Personality and Social Psychology, 66*, 1103–1115.

Larsen, R., & Diener, E. (1987). Affect intensity as an individual difference characteristic. *Journal of Research in Personality, 21*, 1–39.

Ledoux, J.E. (1995). Emotion: Clues from the brain. *Annual Review of Psychology, 46*, 209–235.

Lehman, D.R., Wortman, C.B., & Williams, A.F. (1987). Long-term effects of losing a spouse or child in a motor vehicle crash. *Journal of Personality and Social Psychology, 52*, 218–231.

Lewin, K. (1928). Wille, Vorsatz und Bedürfnis (Will, intention, and need). *Psychologische Forschung, 7*, 330–385.

Lewin, K. (1938). *The conceptual representation and the measurement of psychological forces.* Durham, North Carolina: Duke University Press.

Lewinsohn, P.M. (1974). A behavioral approach to depression. In R.J. Friedman & M.M. Katz (Eds.), *The psychology of depression: Contemporary theory and research* (pp. 157–178). Washington, DC: Winston.

Lewis, M., Sullivan, M.W., Ramsay, D.S., & Alessandri, S.M. (1992). Individual differences in anger and sad expressions during extinction: Antecedents and consequences. *Infant Behavior and Development, 15*, 443–452.

Liberman, N., & Trope, Y. (1998). The role of feasibility and desirability considerations in near and distant future decisions: A test of temporal construal theory. *Journal of Personality and Social Psychology, 75*, 5–18.

Little, B.R. (1983). Personal projects: A rationale and method for investigation. *Environment and Behavior, 15*, 273–309.

Locke, E.A. (1968). Toward a theory of task motivation and incentives. *Organizational Behavior and Human Performance, 3*, 157–189.

Locke, E.A. (2001). Motivation by goal setting. In R.T. Golembiewski (Ed.), *Handbook of organizational behavior* (2nd edn; pp. 43–56). New York: Marcel Dekker.

Loewenstein, G.F., Weber, E.U., Hsee, C.K., & Welch, N. (2001). Risk as feelings. *Psychological Bulletin, 127*, 267–286.

Lucas, R.E., Diener, E., Grob, A., Suh, E.M., & Shao, L. (2000). Cross-cultural evidence for the fundamental features of extraversion. *Journal of Personality and Social Psychology, 79*, 452–468.

Lykken, D. (1999). *Happiness: What studies on twins show us about nature, nurture, and the happiness set-point.* New York: Golden Books.

Lykken, D., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science, 7*, 186–189.

Man, F., Stuchlíková, I., & Klinger, E. (1998). Motivational structure of alcoholic and nonalcoholic Czech men. *Psychological Reports, 82*, 1091–1106.

Mayne, T.J. (2001). Emotions and health. In T.J. Mayne & G.A. Bonanno (Eds.), *Emotions: Current issues and future directions* (pp. 361–397). New York: Guilford.

McClelland, D.C., Atkinson, J.W., Clark, R.A., & Lowell, E.L. (1953). *The achievement motive*. New York: Appleton-Century-Crofts.

McDougall, W. (1921). *An introduction to social psychology.* London: Methuen.

Mellers, B.A. (2000). Choice and the relative pleasure of consequences. *Psychological Bulletin, 126*, 910–924.

Miller, N.E. (1944). Experimental studies of conflict. In J.McV. Hunt (Ed.), *Personality and the behavioral disorders* (Vol. I; pp. 431–465). New York: Roland.

Mogg, K., Mathews, A., & Eysenck, M. (1992). Attentional bias to threat in clinical anxiety states. *Cognition and Emotion, 6*, 149–159.

Murray, H.A. (1938). *Explorations in personality*. New York: Oxford University Press.

Myers, D.G. (1999). Close relationships and quality of life. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 374–391). New York: Russell Sage Foundation.

Nakajima, S., Tanaka, S., Urushihara, K., & Imada, H. (2000). Renewal of extinguished lever-press responses upon return to the training context. *Learning and Motivation, 31*, 416–431.

Neumann, R., & Strack, F. (2000). Approach and avoidance: The influence of proprioceptive and exteroceptive cues on encoding of affective information. *Journal of Personality and Social Psychology, 79*, 39–48.

Newcomb, M.D., & Harlow, L.L. (1986). Life events and substance use among adolescents: Mediating effects of perceived loss of control and meaninglessness in life. *Journal of Personality and Social Psychology, 51*, 564–577.

Nikles, C.D. II, Brecht, D.L., Klinger, E., & Bursell, A.L. (1998). The effects of current-concern- and nonconcern-related waking suggestions on nocturnal dream content. *Journal of Personality and Social Psychology, 75*, 242–255.

Nikula, R., Klinger, E., & Larson-Gutman, M.K. (1993). Current concerns and electrodermal reactivity: Responses to words and thoughts. *Journal of Personality, 61*, 63–84.

Oettingen, G., Pak, H., & Schnetter, K. (2001). Self-regulation of goal-setting: Turning free fantasies about the future into binding goals. *Journal of Personality and Social Psychology, 80*, 736–753.

Palys, T.S., & Little, B.R. (1983). Perceived life satisfaction and the organization of personal project systems. *Journal of Personality and Social Psychology, 44*, 1221–1230.

Pervin, L.A. (1983). The stasis and flow of behavior: Toward a theory of goals. In M.M. Page (Ed.), *Nebraska Symposium of Motivation, 1982* (pp. 1–53). Lincoln, Nebraska: University of Nebraska Press.

Riemann, B.C., Amir, N., & Louro, C.E. (1995). *Cognitive processing of personally relevant information in panic disorder*. Unpublished manuscript.

Riemann, B.C., & McNally, R.J. (1995). Cognitive processing of personally-relevant information. *Cognition and Emotion, 9*, 325–340.

Roberson, L. (1989). Assessing personal work goals in the organizational setting: Development and evaluation of the Work Concerns Inventory. *Organizational Behavior and Human Decision Processes, 44*, 345–367.

Ruehlman, L.S., & Wolchik, S.A. (1988). Personal goals and interpersonal support and hindrance as factors in psychological distress and well-being. *Journal of Personality and Social Psychology, 55*, 293–301.

Ryan, R.M., Sheldon, K.M., Kasser, T., & Deci, E.L. (1996). All goals are not created equal: An organismic perspective on the nature of goals and their regulation. In P. Gollwitzer & J.A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 7–26). New York: Guilford.

Schmuck, P. (2001). Intrinsic and extrinsic life goals preferences as measured via inventories and via priming methodologies: Mean differences and relations with well-being. In P. Schmuck & K.M. Sheldon (Eds.), *Life goals and well-being: Towards a positive psychology of human striving* (pp. 132–147). Seattle, Washington: Hogrefe & Huber.

Schneider, W. (1987). *Ablenkung und Handlungskontrolle: Eine "kognitiv-motivationale Perspektive."* Unpublished Diploma thesis. University of Bielefeld.

Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K., & Lehman, D.R. (2002). Maximizing versus satisficing: Happiness is a matter of choice. *Journal of Personality and Social Psychology, 83*, 1178–1197.

Shah, J., & Higgins, E.T. (1997). Expectancy ∗ value effects: Regulatory focus as determinant of magnitude and direction. *Journal of Personality and Social Psychology, 73*, 447–458.

Sharma, D., Albery, I.P., & Cook, C. (2001). Selective attentional bias to alcohol related stimuli in problem drinkers and non-problem drinkers. *Addiction, 96*, 285–295.

Sheldon, K.M. (2001). The self-concordance model of healthy goal striving: When personal goals correctly represent the person. In P. Schmuck & K.M. Sheldon (Eds.), *Life goals and well-being: Towards a positive psychology of human striving* (pp. 18–36). Seattle, Washington: Hogrefe & Huber.

Sheldon, K.M., & Elliot, A.J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology, 76*, 482–497.

Shidara, M., & Richmond, B.J. (2002). Anterior cingulate: Single neuronal signals related to degree of reward expectancy. *Science, 296*, 1709–1711.

Simon, H.A. (1956). Rational choice and the structure of the environment. *Psychological Review, 63*, 129–138.

Simpson, J.B. (1988). *Simpson's contemporary quotations*. Boston: Houghton Mifflin.

Singer, J.A., & Salovey, P. (1993). *The remembered self: Emotion and memory in personality*. New York: Free Press.

Snyder, C.R. (1994). *The psychology of hope.* New York: Free Press.

Stetter, F., Ackermann, K., Bizer, A., Straube, E.R., & Mann, K. (1995). Effects of disease-related cues in alcoholic inpatients: Results of a controlled "Alcohol Stroop" study. *Alcoholism: Clinical and Experimental Research, 19*, 593–599.

Stocker, M. (1996). *Valuing emotions*. Cambridge, UK: Cambridge University Press.

Stormark, K.L., Laberg, J.C., Bjerland, T., Nordby, H., & Hugdahl, K. (1995). Autonomic cued reactivity in alcoholics: The effect of olfactory stimuli. *Addictive Behaviours, 20*, 571–584.

Stormark, K.L., Laberg, J.C., Nordby, H., & Hugdahl, K. (2000). Alcoholics' selective attention to alcohol stimuli: Automated processing? *Journal of Studies on Alcohol, 61*, 18–23.

Teasdale, J.D., Segal, Z.V., & Williams, J.M.G. (1995). How does cognitive therapy prevent depressive relapse and why should attentional control (mindfulness) training help? *Behaviour Research and Therapy, 33*, 25–39.

Teasdale, J.D., Segal, Z.V., Williams, J.M.G., Ridgeway, V.A., Soulsby, J.M., & Lau, M.A. (2000). Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology, 68*, 615–623.

Tomkins, S.S. (1962). *Affect, imagery, consciousness. Vol. 1. The positive affects*. New York: Springer.

Toyomitsu, Y., Nishijo, H., Uwano, T., Kuratsu, J., & Ono, T. (2002). Neuronal responses of the rat amygdala during extinction and reassociation learning in elementary and configural associative tasks. *European Journal of Neuroscience, 15*, 753–768.

Uznadze, D.N. (1966). *The psychology of set*. New York: Consultants Bureau.

Van Eerde, W., & Thierry, H. (1996). Vroom's expectancy models and work-related criteria: A meta-analysis. *Journal of Applied Psychology, 81*, 575–586.

Warr, P. (1999). Well-being and the workplace. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 392–412). New York: Russell Sage Foundation.

Watson, D., & Kendall, P.C. (1989). Understanding anxiety and depression: Their relation to negative and positive affective states. In P.C. Kendall & D. Watson (Eds.), *Anxiety and depression: Distinctive and overlapping features* (pp. 3–26). San Diego, CA: Academic Press.

Watson, D., Wiese, D., Vaidya, J., & Tellegen, A. (1999). The two general activation systems of affect: Structural findings, evolutionary considerations, and psychobiological evidence. *Journal of Personality and Social Psychology, 76*, 820–838.

Wentura, D., Rothermund, K., & Bak, P. (2000). Automatic vigilance: The attention-grabbing power of approach and avoidance-related social information. *Journal of Personality and Social Psychology, 78*, 1024–1037.

Williams, J.M.G., Mathews, A., & MacLeod, C. (1996). The emotional Stroop task and psychopathology. *Psychological Bulletin, 120*, 3–24.

Williams, M. (1997). *Cry of pain*. London: Penguin.

Wilson, T.D., Meyers, J., & Gilbert, D.T. (2001). Lessons from the past: Do people learn from experience that emotional reactions are short-lived? *Personality and Social Psychology Bulletin, 27*, 1648–1661.

Wilson, T.D., Wheatley, T., Meyers, J.M., Gilbert, D.T., & Axsom, D. (2000). Focalism: A source of durability bias in affective forecasting. *Journal of Personality and Social Psychology, 78*, 821–836.

Winkielmann, P., Zajonc, R.B., & Schwarz, N. (1997). Subliminal affective priming resists attributional interventions. *Cognition and Emotion, 11*, 433–466.

Wong, P.T.P. (1998). Implicit theories of meaningful life and the development of the Personal Meaning Profile. In P.T.P. Wong & P.S. Fry (Eds.), *The human quest for meaning: A handbook of psychological research and clinical applications* (pp. 111–140). Mahwah, NJ: Erlbaum.

Young, J. (1987). *The role of selective attention in the attitude–behavior relationship*. Doctoral dissertation, University of Minnesota.

Zajonc, R.B. (1980). Feeling and thinking: Preferences need no inferences. *American Psychologist, 35*, 151–175.