CHAPTER 2

A Unifying Theory of Human Control

As we saw in Chapter 1, control has turned out to be a much more intricate construct than was initially thought (Carver & Scheier, 1981; Langer, 1983; Menninger, et al, 1963; Peterson & Seligman, 1987; Rodin, 1986; Rosenbaum, 1993; Rotter, 1966, 1990; Schwartz, 1979a, 1979; Seligman, 1975; Shapiro, Evans, & Shapiro, 1987). The question with which we are now faced is, To what extent is it possible to integrate previous theories into a unified whole? It is necessary to formulate such a theory (and a subsequent inventory to measure the components of the theory) in order to develop a control-based approach to therapy, health, and healing.

The majority of this chapter is devoted to presenting our theory, which is organized around three broad postulates:

1. Gaining and maintaining a sense of control is a major motivational force across the human life cycle.
2. There are both higher and lower levels of control-related goals, desires, and strategies by which people seek to gain a sense of control.
3. There are individual differences with respect to how and why control is sought.

These postulates form the foundation for our control-based approach to therapy and health. In this chapter we present the fundamental principles underlying the seeming diversity and the particulars of much of human behavior. In subsequent chapters we show how these same general principles can be applied across multiple domains (e.g., mental, physical and relational health).

For example, after a traumatic event, such as breast cancer, that undermines a person's sense of control (Anderson et al., 1994; Shapiro, Anton-Culver et al., 1998; Taylor, 1983), our theory posits that people try to reestablish a

sense of control (Postulate 1). Some use control-related coping strategies to more effectively regain a sense of control regarding the threatening event, whereas others engage in maladaptive, suboptimal control coping strategies (Postulate 2). By being able to recognize control-related individual differences (Postulate 3), the clinician can tailor and match control-related interventions to help individuals suffering adverse sequelae from the traumatic event.

The final part of this chapter shows how our theory can serve as a larger context, helping integrate the theories and concepts described in Chapter 1. In so doing, it serves two seemingly paradoxical functions: First, it honors and recognizes the increasing complexity of control; second, it provides a framework showing how previous theories can be understood more simply as being parts of a larger theory.

POSTULATE 1: SENSE OF CONTROL AS MOTIVATING FORCE

Our first postulate states that one of our greatest human fears is losing control and one of our strongest motivations is to have a sense of control in our lives. Therefore, across domains of life, individuals' behavior and cognitions can be explained by and are an expression of their need to gain, maintain, and/or reestablish a sense of control.

Our first subpostulate states that there are control-related developmental and life-cycle issues across multiple domains—personal, interpersonal, and cosmic—which all individuals, irrespective of culture, have to address. For example, an infant's attempts to master the physical world and an elderly person's attempts to cope with loss of physical abilities can be understood as efforts to gain or maintain a sense of control on the personal level. The desire to make order out of the seeming chaos of the universe, to create or discover meaning, can also be understood as an expression of humans' fundamental need for a sense of control.

Our second subpostulate states that when sense of control is lacking in one domain, it can be reestablished through one or more of the following: increasing or decreasing desire for control, developing behavioral competencies (for self-change, altering the environment, or focusing control efforts in a different domain), altering cognitive appraisals/beliefs in order to reframe the situation, or transforming affect. For example, when faced with the inevitable loss of physical capacity that accompanies old age, individuals can reduce their desire for such control, develop behavioral competencies in other areas, place less cognitive value on such abilities, or develop appreciation and gratitude for what they do have.

This postulate and its subpostulates include four key components of the multidimensional construct of control that require further clarification: sense of control, modes of control, agency of control and desire for control.

SENSE OF CONTROL

Recall from the book's introduction the definition of control: "to cause an influence in the intended direction" (Rodin, 1986; Rothbaum & Weisz, 1989). A large body of research, however, suggests that perceived control can be as important as actual control (Taylor & Brown, 1988). Our theory, therefore, uses the term *sense of control,* which can subsume both constructs. The National Institutes of Health (NIH) referred to *sense of control* as people's "interrelated beliefs and expectancies about: a) their ability to perform behaviors leading to desired outcomes and, b) the responsiveness of the environment to their behaviors" (NIH, 1990). Using this as a starting point, we have defined *sense of control* as "a person's perception that he or she has control, or the belief that he or she can gain such control if desired" (Shapiro, 1994a). Further, as noted previously, control issues are relevant *across domains,* and therefore specific domains need to be addressed as well when examining a person's sense of control. As detailed in Chapter 3, we have developed scales to measure both general domain sense of control (positive, negative, and overall) and domain-specific sense of control across 25 parameters (or domains).

MODES OF CONTROL

Research and clinical experience suggest that there are two primary modes that people utilize in order to gain, maintain, or reestablish a sense of control: an active, altering mode, and a yielding, accepting mode.

Most Western psychological research on control focuses on the active, altering mode of control to influence or change a situation (Shapiro, 1982, 1983; Thompson, 1981). This mode has been referred to by various researchers as a mastery model (Wolpe, 1969), problem-focused instrumental coping (Lazarus, 1981), and primary control (Weisz, Rothbaum, & Blackburn, 1984). This assertive, decisive, instrumental "fighting spirit" mode is typically contrasted with a negative, yielding mode—a timid passive, helpless, hopeless, resigned, fatalistic, avoidant coping style involving too little control (Anderson et al., 1994; Burger & Cooper, 1979; Roth & Cohen, 1986; Suls & Fletcher, 1985).

The other mode of control, characterized by a yielding or accepting orientation toward oneself or circumstances in life, is perceived in Western psychological literature as being of secondary benefit, to be utilized in order to accept that which is not within our active personal control. An implicit (if not explicit) bias favoring active change as the preferential strategy can be seen in the terms used to differentiate this type of control, for example, mastery versus coping (Goldfried, 1973; Meichenbaum, 1977); instrumental ver-

sus palliative coping (Lazarus, 1981); primary versus secondary control (Weisz, Rothbaum, & Blackburn, 1984); situational reconstruction versus compensatory self-improvement (Maddi & Kobasa, 1984).

Further, this Western bias toward active change is reflected in most psychological control assessment inventories and many coping questionnaires that do not distinguish between what we refer to as *positive yielding* (acceptance) and *negative yielding* (passivity or too little control; Feifel et al., 1987; Levy et al., 1985; Rotter, 1966; Wallston, Wallston & DeVellis, 1978).

However, psychological theory, research, and practice are beginning to recognize that there are culture-bound features in Western psychology's understanding of control as active and instrumental (Shapiro, Evans, & Shapiro, 1987), and that having active, instrumental control is not always positive (Burger, 1989; Evans, Shapiro, and Lewis, 1993; Thompson et al., 1988). Our theory, therefore, emphasizes the importance of this accepting mode of control as a complementary balance to active change strategies as well as a therapeutic goal in its own right (Carver, Scheier, & Weintraub, 1989; Gray & Doan, 1990; Linehan, 1993; Shapiro, 1978, 1982, 1985, 1994; Weisz, Rothbaum, & Blackburn, 1984). The scaled inventory outlined in Chapter 3 measures both the assertive/change mode of control and the yielding/accepting mode.

Finally, our theory also argues that there can be negative consequences associated with efforts to gain a sense of control through these two modes (what we term *negative, assertive, overcontrol* and *negative, yielding, too little control*). Our inventory, therefore, has scales to measure four different modes of control, as illustrated in Figure 2.1.

QUADRANT ONE POSITIVE ASSERTIVE ACTIVE/CHANGE MODE OF CONTROL	**QUADRANT TWO** POSITIVE YIELDING LETTING GO/ ACCEPTING MODE OF CONTROL
QUADRANT THREE NEGATIVE ASSERTIVE OVERCONTROL	**QUADRANT FOUR** NEGATIVE YIELDING TOO LITTLE CONTROL

FIGURE 2.1
FOUR-QUADRANT MODEL OF CONTROL

AGENCY OF CONTROL

Agency refers to the source (i.e., self and/or other) from which people gain a sense of control. That a person's sense of control can come from one or more non-mutually exclusive agents is well documented (Levenson, 1974; Viney, 1974; Wallston et al., 1978). It can come from self, both as control over oneself or self-control (self as agent and object; Shapiro, 1994b; Thoresen & Mahoney, 1974) and control over others and the environment (self as agent, environment as object; Adler, 1964; McClelland, 1975; Shapiro & Zifferblatt, 1976b; White, 1959).

However, in addition to the findings that positive outcomes occur when individuals have (or believe they have) control over the environment or themselves, research has also demonstrated the positive effects of control-enhancing options from the environment (e.g., providing nursing home residents with more choices for self-determination as in the well-known Rodin and Langer study). Further, individuals can also gain a positive sense of control by believing that someone else is in control (i.e., control by another/a benevolent other, such as the doctor, a Higher Power; Campbell, 1964, 1972; Frank, 1977; Kass et al., 1991; Kleinman, 1987; Shapiro, 1989a, b; Taylor, Lichtman, & Wood, 1984; Wallston et al., 1978). For example, as we detail in Chapter 6, in Taylor's (1983) study, psychological health in one group of cancer patients was positively affected by believing that the doctor, a powerful benevolent Other, had the situation in control, even if the patient did not. Research confirms the value of religious/spiritual beliefs and experiences of a powerful, benevolent Other (God) being in control (Kass, 1991, 1993; Shapiro, Anton-Culver et al., 1998) in both mental and physical health.

Although not often made explicit, most Western medical therapeutics, psychotherapies, and scientific psychology models are based on a belief system that views the universe as indifferent to human needs and without intrinsic meaning and purpose (Ellis, 1984; Lerner, 1975; May & Yalom, 1989; Sampson, 1981, 1985; Woolfolk & Richardson, 1984; Yalom, 1980). However, for many individuals, religious beliefs provide a sense of control over uncontrollable outcomes, undesirable life events, and uncertainties (Campbell, 1964, 1972; Druckman & Swets, 1988; Frank, 1963, 1977; Silver & Wortman, 1980; Wortman & Brehm, 1975), and can help in facing pain, illness, decay, and death (Becker, 1973; Lazarus & Delongis, 1983; Taylor, 1983). Beliefs in a universe that is just (Lerner, 1975), purposive, and controlled by a powerful benevolent Other can have a positive effect on both psychological and physical health (Bergin, 1991; Cameron et al., 1987; Kass et al., 1991; Kleinman, 1980, 1987; McIntosh & Spilka, 1990; Shapiro, 1989a; Weisz, Rothbaum, & Blackburn, 1984; Wikan, 1989).

Therefore, as detailed in Chapter 3, our assessment inventory incorporates questions assessing the person's beliefs regarding the sources (both self and other/Other) from which control is gained.

Desire for Control

Another dimension of control may be represented by a "control motivational vector" whose direction is toward gaining, maintaining, and reestablishing control. The human quest for control is one of the major driving forces behind all human action, behavior, and thought. As noted in Postulate 1, one of the greatest human fears is losing control (Brehm, 1966; Drets & Swets, 1988; Seligman, 1975) and one of the strongest needs is having or being in control (Bandura, 1977, 1989a, b; Burger & Cooper, 1979; DeCharms, 1968; Deci, 1985; Rodin, 1986; Rothbaum & Weisz, 1989; Shapiro, 1998; White, 1959).

First-generation efforts to measure control, such as Rotter's internal/external locus of control scales (1966) and Wallston's health locus of control scales (1978) did not provide for a variable of desire or effort for control over the external environment. However, research has now shown that this variable is distinct from Rotter's locus of control (Burger, 1985; Burger & Cooper, 1979). In addition to desire for control over the external environment, there is also desire for control over one's own choices, thoughts, and emotions (i.e., self-determination; Deci & Ryan, 1985; Lefcourt, 1973). Control as a motivational variable has also been investigated in terms of excessive need for control (Glass, 1977) and reactance, or how people respond to perceived or actual loss of freedom and control (Brehm, 1966, 1981).

POSTULATE 2: HIGHER AND LOWER LEVELS OF CONTROL

Our second postulate states that there are lower and higher levels of control desires, goals, and strategies. Our first subpostulate is that having too little control is suboptimal. Our second subpostulate is that normal or typical control strategies may have negative or problematic features. Finally, our third subpostulate considers what optimal control strategies would involve.

Suboptimal Control

Our first subpostulate states that: When sense of control is not established, there are negative mental and physical health consequences. As we detail in Chapter 4, a substantial body of literature documents the negative health consequences associated with having too little control and feeling helpless or powerless (our Quadrant 4, negative, yielding mode of control, outlined in Figure 2.1). Suboptimal control results when there is a mismatch between personal variables (low desire for control, negative self-efficacy cognitions,

or low behavioral competencies) and environmental variables (i.e., opportunities for control).

The effects of suboptimal control include increased morbidity/mortality (Syme, 1991), greater cardiovascular risk and reactivity (Bugental et al., 1993), impaired immune function (Sieber et al., 1992), poorer mental health, and less effective psychological coping with stressful life events and circumstances (Taylor & Brown, 1988). As summarized in Chapter 1, theorists from Menninger et al. (1963) to Seligman (1975) to Frank (1982) have argued that poor mental health is largely a result of people feeling a lack of control in their lives.

NORMAL CONTROL STRATEGIES

Our second subpostulate states that although a normal control profile is more positive than suboptimal there can also be negative consequences resulting from normal strategies used to gain and maintain a sense of control. As detailed in Chapter 4, the mental and physical health benefits associated with having a sense of control are well established in the research and clinical literature. However, we argue that by and large, Western psychology has tended to overlook the potentially negative effects of normal control strategies and efforts. For example, although so-called normal or healthy individuals routinely use coping strategies such as making external attributions for failure in order to regain a sense of control (Seligman, 1991), these strategies can lead to denial of responsibility and a failure to adequately self-assess and make needed changes. Similarly, holding "positive illusions" regarding one's ability to exercise control—although adaptive in some situations—can lead to unrealistic optimism and a denial of what is occurring in oneself and the environment.

Normal control desires and strategies can become suboptimal when mismatches occur. A mismatch occurs when desire for control becomes excessive or inappropriately directed in a situation in which there are no environmental affordances (i.e., an uncontrollable outcome). At such times, normal control strategies—typically conceptualized Western psychological thought and practice as active, assertive, or instrumental control—can become negative overcontrol (our Quadrant 3, negative, assertive mode).

TOWARD OPTIMAL CONTROL

As detailed in Chapter 5, our theory attempts to move beyond traditional notions of control and psychological health by positing what we refer to as *optimal* control strategies and health.

Optimal control involves learning where and when control goals, desires, and strategies have become reflexive, limiting, and potentially destructive.

It further involves developing guidelines, principles, and directions to help transform lower-level control strategies, goals, and desires into higher-level ones.

At the simplest level, optimal control involves appropriately matching control desires, goals, and strategies to situations. Furthermore, our theory posits that optimal control strategies consist of a balanced and flexible use of assertive and yielding modes of control, an ability to gain a sense of control from both self and other sources/agents, awareness of when desire for control has become excessive or misplaced, an ability to gain a sense of control without relying on reality distorting defenses and attributions, and directing control efforts not solely toward furthering the well-being of oneself, but toward the promotion of health and well-being in others and the world at large.

POSTULATE 3: CONTROL AND INDIVIDUAL DIFFERENCES

Our third postulate states that there are individual differences in terms of people's desire for control and the means whereby they gain a sense of control. These individual differences are based on multiple influences. Our first subpostulate states that any comprehensive theory of control must consider the biopsychosocial factors (e.g., cultural–environmental, biological–genetic, psychological) and their multidirectional interaction. Our second subpostulate considers that individual differences in control profiles are affected by developmental-life cycle and gender socialization factors. Finally, our third subpostulate asserts that although there are biological and genetic influences on control, human will and consciousness values and beliefs can be causal determinants affecting both biology and environment.

Biopsychosocial Influences

Our first subpostulate states that biological–genetic, psychological, and sociocultural (i.e., biopsychosocial) factors interact with one another to influence people's desire for control, ability to gain control, and the means whereby such control is gained. In the fields of health psychology and behavioral medicine, a biopsychosocial model (Engel, 1977; Schwartz, 1982; Shapiro et al., 1996) has been proposed to explain the multifactorial nature of health and illness. This model emphasizes the complex interplay of psychological, social/cultural, and biological factors in determining various health outcomes.

Although the genetic etiology of complex human behaviors and personality factors continues to be controversial (Baumrind, 1993; Jackson, 1993;

Mann, 1994), research in the field of behavioral genetics suggests that the degree to which people are able to exercise behavioral self-control or perceive themselves to be in control may be partially determined by genetic factors. For example, twin studies (Miller & Rose, 1982) suggest a genetic contribution for the locus-of-control personality trait. In addition, research suggests that there may be a significant genetic component to health behaviors assumed to involve personal control such as smoking and alcohol use (Rose, 1995).

Averill (1973) suggested that our desire to exercise control and mastery over the external environment is biologically adaptive: "An animal (especially an unspecialized primate of the type ancestral to man) who did not seek information about or attempt to exert control over potentially harmful events probably did not survive to contribute to the evolution of the species. Furthermore, researchers have suggested that the phenomenon of social dominance observed in a number of animal species may be a genetic link to the human desire to exert control and dominate others socially (Fiske, 1993; Koolhaas & Bohus, 1989).

However, even scholars in the field of behavioral genetics recognize that a significant amount of the variance in complex human behaviors and personality factors including control cannot be explained solely by genetic or biological factors (cf. Plomin et al., 1994). Our theory argues that although genetics is a critical determinant of human behavior and control, such factors are constantly interacting with environmental–cultural factors. As discussed earlier, cultures can differ greatly in terms of their orientation toward control. For example, we find in U.S. culture the saying "the squeaky wheel gets the grease," which emphasizes the assertive mode of control. In Japan, one finds the saying "the nail that sticks out gets hammered," which points to the emphasis this culture places on harmony and yielding (Weisz et al., 1984).

Furthermore, as Sperry (1988) and Bandura (1978) noted and as we detail in our third subpostulate, human consciousness can be a causal factor in and of itself (i.e., it is not solely determined by biology or culture/environment) and factors such as humans' ability to exercise free choice and will are also part of the dynamic interplay that influences control and self-control.

DEVELOPMENTAL AND GENDER FACTORS IN CONTROL

Our second subpostulate states that there are differences in how and to what extent control is exercised, depending on the particular stage of development one is in and one's gender. We go into considerable detail regarding gender and sex role issues in Chapter 7. Here we briefly review some of the major developmental and gender-related issues as they affect control.

Theorists from Kegan (1982) to Wilber (1995) have suggested that across stages of human growth and development, there appear to be two major thrusts or directions—one toward autonomy, the other toward inclusion. These go by various names: differentiation versus integration; agency versus communion; independence versus dependence. Building on the work of both Piaget (1952) and Kohlberg (1981), Kegan (1982) suggests that although healthy development usually involves some balance or combination of both these aspects, one finds that different developmental stages tend to favor either independence or inclusion. For example, whereas the preschool (Piaget's "preoperational") child's sense of self is tied or bound to outer, sensory perceptions (inclusion/dependence favoring), the emphasis for the school-aged "concrete operational" child is on his or her self-sufficiency and budding autonomy (Kegan, 1982). Similarly, Kegan contrasted the adolescent's emphasis on finding identity through others (his interpersonal stage) with the young adult's emphasis on independence and self-regulation (what he termed the *institutional self*; Kegan, 1982).

These two movements have their parallel in self as agent or source of control (representing autonomy, differentiation) and other as agent of control (representing inclusion, integration; see Table 2.1). These two developmental themes or trends—autonomy and inclusion—also parallel our assertive and yielding modes. One could say that the younger pre-school child tends to rely on other agency to gain a sense of control, whereas the developmental tasks for the school-aged child center more on learning positive assertive skills and gaining control from self-efforts.

Differences in how control is realized and expressed can also be seen in adult development. For example, our research (Shapiro et al., 1995) suggests that the elderly (as compared with middle-aged and young adults) are significantly more likely to complement self as source of control with gaining a

TABLE 2.1
STAGES OF DEVELOPMENT AND AGENCY/MODE OF CONTROL

Kegan (1982)	Piaget (1952)	Wilber (1980)	Maslow (1954)	Agency of Control	Mode of Control
incorporative	sensorimotor	archaic	physical	other	yielding
impulsive	preoperational	magic	needs	other	yielding
imperial	concrete operational	mythic	safety needs	self	assertive
interpersonal	early formal operational	mythic–rational	belonging needs	other	yielding
institutional	formal operational	rational	self-esteem needs	self	assertive
interindividual	dialectical	vision logic	self-actualization	self and other	assertive/yielding

sense of control from others (including God and belief in a higher power). In addition, the senior citizens in this study showed more of a tendency toward adopting an accepting approach to control-related issues. This parallels the finding of Heckhausen and Schulz (1995) that as people grow older, they typically increase their use of "secondary control strategies" (attempts to fit in with the world, to flow with what is) as a complement or adjunct to primary control efforts (attempts to change the world in accordance with one's needs/desires).

Although our integrative theory stresses the importance of balancing the modes by and sources from which control is gained, it is important to be sensitive to developmental issues and their potential impact on the ways in which control is sought and expressed. This subpostulate highlights the importance of considering age-related differences regarding how control is realized over the developmental life cycle because at certain stages, people may need to focus on learning different control-related skills and strategies.

A number of theorists have also suggested that there are fundamental gender differences in terms of these two developmental thrusts, with women characteristically favoring a relational, inclusive, affiliative orientation and men an autonomous, independent, and differentiating orientation (Bem, 1977; Wilber, 1995; Broverman et al., 1970; Gilligan, 1982; Spence et al., 1979). The degree to which these are socialized roles or have some biological (e.g., hormonal) or evolutionary underpinnings continues to be debated in the literature (Wilber, 1995).

In terms of agency of control, one might also tend to observe women being more inclined toward reliance on or utilization of the support of others to gain a sense of control, with men favoring reliance on self-efforts to gain a sense of control (Gilligan, 1982, Shapiro & Shapiro, 1984). However, as can be seen in the model we have been presenting thus far, neither self as agent nor other as agent should be viewed as a better or healthier means of achieving sense of control. They are both valuable methods but can both also become excessive or dysfunctional, particularly when they are not balanced by each other.

To summarize, this subpostulate emphasizes that control-related desires and choices occur within both developmental and social contexts and can therefore be influenced by factors such as gender socialization; sex-based biological, hormonal differences; and particular developmental tasks people may be facing.

CONTROL: REFLEX OR CONSCIOUS CHOICE

Our third subpostulate states that although there are biological and environmental influences on behavior, humans can learn, through attentional

TABLE 2.2
POSTULATES OF OUR INTEGRATED THEORY OF CONTROL

POSTULATE 1: Across domains of life, the behavior and cognitions of individuals can be explained by and are often an expression of their need to gain, maintain, and/or reestablish a sense of control.

1.1. There are control-related developmental and life-cycle issues across multiple domains—personal, interpersonal, and cosmic—that all people, irrespective of culture, have to address.

1.2. When sense of control is lacking in one domain, it can be reestablished through one or more of the following: increasing or decreasing desire for control, developing behavioral competencies (either for self-change, altering the environment, or focusing control efforts in a different domain), altering cognitive appraisals/beliefs in order to reframe the situation, or transforming affect.

POSTULATE 2: There are lower and higher levels of control desires, goals, and strategies.

2.1. When sense of control is not established, there are negative mental and physical health consequences.

2.2. Although a normal control profile emphasizing active, instrumental control and the use of attributions and defenses to maintain a sense of control is more positive than suboptimal lack of control, there can also be negative consequences associated with normal strategies used to gain and maintain a sense of control.

2.3. Higher, more optimal levels of control are reflected in a balanced and flexible use of assertive and yielding modes; the ability to gain control from both self and other; situation-appropriate levels of desire for control; and the directing of control efforts toward furthering the well-being of both self and others.

POSTULATE 3: There are individual differences in people's desire for control and the means whereby they gain a sense of control.

3.1. Biological–genetic, psychological, and sociocultural (i.e., biopsychosocial) factors interact to influence people's desire for control, ability to gain control, and means whereby such control is gained.

3.2. There are differences in how and to what extent control is exercised, depending on the particular stage of development one is in and one's gender.

3.3. Although there are biological and environmental influences on behavior, humans can learn, through attentional training and values clarification, to exercise choice through both self-control and environmental control.

training and values clarification, to exercise choice through both self-control and environmental control.

In Chapter 1 we reviewed theoretical orientations that declared human behavior to be primarily controlled either by biology/genetics or environmental forces. The biological position is reflected in the current emphasis (e.g., in biopsychiatry) on understanding mental–emotional functioning in terms of biochemical and genetic factors. This position essentially argues that our ability to personally control cognitions and mood is ultimately limited. We are, from this perspective, genetically hardwired to behave in certain ways, exhibit certain personality traits, and have particular temperaments.

The environmental perspective, exemplified in the work of radical behaviorists such as Skinner, (1953, 1971), argues that behavior is ultimately controlled by environmental factors (e.g., situational cues, reinforcements). This perspective similarly posits a model of humans having limited capacity to exercise free choice and control, albeit for different reasons.

Subpostulate 3.1, on biopsychosocial theory, does recognize that humans' ability to exercise control is significantly influenced by genetic/environmental factors. Many of our control-related desires, choices, and actions are reflexive, biologically based, habitual and automatic, and culturally determined. Further, although we may believe we have free choice, such control is, in fact, often illusory because we fail to acknowledge the influence of these biological and sociocultural factors. However, our theory posits that a higher level of control is possible, one in which people in a sense rise above or at least recognize the power of these forces and begin to make control choices more consciously.

For example, when someone criticizes us, we frequently react with anger, an automatic, instinctual response. However, our theory posits that despite such biological instincts and tendencies, humans have the unique capacity to develop ethical principles and values, moral reasoning, and conscious choice and forethought about when and how they behave and express themselves. As Chapter 5 details, with these capacities we can develop and practice higher levels of conscious choice regarding our control-related goals, desires, and strategies. Table 2.2 summarizes the three postulates and related subpostulates that constitute our integrative theory of control.

ADVANTAGES OF OUR INTEGRATIVE CONTROL THEORY

At the outset of this chapter, we stated that a unifying theory of control should serve two seemingly paradoxical functions: It should show that control is much more complex and multifaceted than any one previous theory suggests and it should show how previous theories can be understood more

simply as parts of a larger theory. To meet these goals, we highlight the limits of other theories and constructs insofar as they do not address the full multidimensional complexity of control. Further, we then note how our theory simplifies, showing that different theories and constructs can be understood as measuring different aspects of our control metatheory (i.e., motivation, agency, modes, beliefs).

A unifying, integrated theory posits a single and primary cause to explain a wide range of seemingly diverse behaviors. Thus, our efforts are part of a long scientific tradition of seeking parsimony in achieving each of science's three goals: understanding, prediction, and control or change. Each goal is seen as a higher-level and more difficult task. A better, more comprehensive theory is one that can provide equal or more accurate information about a larger field of information, resolve what appear to be paradoxes, and provide a simplicity that did not exist before.

Resolving Paradoxes

Our theory integrates what appear to be contradictions. Western psychology's emphasis has been primarily on gaining a sense of control through an assertive, altering mode (Seligman, 1975; White, 1959). Eastern psychologies discuss gaining a sense of control by letting go of active control—our positive yielding mode of control (Kabat-Zinn, 1990; Lao-Tzu, 1936; Linehan, 1993). Although active control and letting go of active control appear to be opposites, our theory shows how both can be modes for gaining a sense of control. Further, our theory allows for the importance of self-efficacy (Bandura, 1977, 1989), but notes too that other efficacy (e.g., belief in a powerful, benevolent other) can also provide a sense of control (Kass, 1991).

Our theory states that a need for a sense of control is important but does not limit itself to one type of control motivational vector. Therefore, our theory can encompass a drive for control over the external environment as an impetus for control efforts (White, 1959) and a drive for personal superiority as a motivating force (Adler, 1964). Our theory also recognizes the importance of death as loss of control and the resulting desire to seek cosmic significance as a means to gain a sense of control (Becker, 1973). However, we also acknowledge that people can be motivated by a desire to decrease active control, to want *less* active control in their lives in order to gain a sense of control (Evans, Shapiro, & Lewis, 1993; Kabat-Zinn, 1990).

Integrating Others' Theories

Our theory can accommodate Frankl's (1980) search for meaning as a way to make order out of unexpected, random, and sometimes horrific events, to

gain a sense of control when confronted with the seeming chaos of the universe through imposing, discovering, or receiving meaning. However, it can also accommodate Averill's (1973) behavioral control, in which actual instrumental control is utilized to remove an aversive stimulus, as well as White's (1959) behavioral competence, in which individuals learn to gain

TABLE 2.3
LIMITATIONS OF PREVIOUS CONTROL CONSTRUCTS ADDRESSED BY OUR THEORY

Control-Related Theory, Construct, or Model	**What Our Integrative Theory Adds to the Model.**
Rotter's (1966) internal/external locus of control	Measurement of sense of control, motivational vector and domain-specific sense of control.
Wallston's et al. (1978) health locus of control	Measurement of sense of control, motivational vector, and general domain sense of control.
Bandura's (1977) self-efficacy	Measure of motivation and concept of "other" efficacy.
White's (1959) competence	Discussion of control of emotions, cognitions and delay of gratification.
Menninger's et al. (1963) dyscontrol	Negative consequences of having/gaining control are addressed.
Seligman's (1975, 1991) learned helplessness and optimism	Positive yielding mode of control is addressed.
Becker's (1973) death as loss of control; cosmic significance as way to regain control	Acknowledges Eastern views of impermanence and acceptance as ways of coping with death.
Frankl's (1980) will to meaning as way to gain cognitive control	Behavioral control (e.g., Averill, 1973) and competence (White, 1959) are included.
Adler's (1964) will to superiority	Positive yielding mode as way to gain a sense of control is considered, as are non-ego based developmental stages and control strategies.

control over the external environment. Each of these can be an effective strategy that can provide people with a sense of control.

Table 2.3 provides a summary of several salient control-related constructs, theories, or models and shows how our theory addresses what is incomplete or lacking in these previous models of control.

INTEGRATIVE THEORY OF CONTROL SUMMARY

We posit that the human need to feel a sense of control is universal across all domains of life. Further, there are negative consequences when sense of control is not established.

However, there are suboptimal, normal, and optimal control profiles, and there are lower and higher levels of control desires, goals, and strategies. A normal profile can be positive and better than a profile involving lack of control, but there also can be negative consequences to a normal control profile. We therefore propose that humans can move toward optimal control profiles, strategies, and health.

We further argue that there are large individual variations in terms of how much active control people desire and the means by which they realize such control (i.e., from self or other efforts and from assertive or yielding modes). Thus, people have different control profiles and styles. This individual variation in control profiles is based on biological and genetic factors, cultural values and conditioning, social factors such as stressful life events and circumstances, and individual personality and cognitive styles. Our theory is based on a biopsychosocial approach (Schwartz, 1982; Shapiro, Schwartz, & Astin, 1996) and recognizes bi- and multidirectional influences among biological, social, and psychological variables (Bandura, 1978; Sperry, 1988).

Further, we postulate that different modes of control may be more effective in certain domains and certain developmental phases, than in others. Recall from the book's introduction that our clinical goal in this book is to address the question Which control-related interventions are most effective for a particular patient with a specific control profile and a particular control-related problem? This matching of strategy to person is one way in which control theory, research, and practice can be integrated. In Chapter 3 we examine in more detail the assessment inventory based on the components of our integrative theory, which can provide the health care practitioner with a detailed and accurate control profile for each client.