Cognitive behavior therapy (CBT) has emerged as a widely used and efficacious treatment approach for a variety of psychological conditions (Dobson & Khatri, 2000; Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012; Tolin, 2010), including depression, anxiety disorders, personality disorders, substance abuse disorders, eating disorders, and couple's distress. CBT is, however, a broad and heterogeneous concept that represents a variety of therapeutic approaches that emphasize, to varying degrees, cognitive, behavioral, emotional, physiological, and environmental factors in relation to psychological disorders (Forman & Herbert, 2009). There are at least 10 schools that can be identified under the umbrella of CBT (David & Szentagotai, 2006). One of these is represented by the influential cognitive approach to understanding and treating psychological disorders advanced by Aaron T. Beck (1963, 1976; A. T. Beck, Freeman, & Associates, 1990) and his daughter, Judith S. Beck (2005, 2011). A primary assumption of their model is that
distorted and dysfunctional thinking influences mood and behavior and that such biased forms of thinking are common to all psychological disorders. Associated theory additionally holds that each specific form of psychological disorder is defined by a unique set of thought distortions and underlying core beliefs unique to that condition. An implication of this model is that therapeutic activities should be geared toward the promotion of realistic, accurate, and balanced thinking and that the modification of thinking will, in turn, produce associated changes in mood and behavior. An additional assumption of this model is that the modification of underlying beliefs, or schemas, is required to bring about lasting therapeutic change (J. S. Beck, 2011).

Cognitive perspectives that have informed developments in CBT vary in the degree to which the environment is viewed as a determinant of thinking, emotion, and action. Some cognitive theories, for example, emphasize a cognitively constructed environment over the physical environment as the primary determinant of emotion and behavior (e.g., Mahoney, 1991). Other models highlight the role of concepts such as schemas, which are regarded as cognitive structures central to the evaluation and interpretation of experiences that, in some instances, also predispose persons to emotional and behavioral disorders (e.g., J. E. Young, Rygh, Weinberger, & Beck, 2014). Other cognitive-oriented theories place the environment on equal footing with perceptions of the self or environment as determinants of behavior and emotion (e.g., Bandura, 1986).

In contrast to models that emphasize the predisposing or causal properties of cognitive constructs, behavior theory and therapy generally avoid ascribing mental concepts a causal role in behavior and instead place primary emphasis on the physical environment (Baum, 2005). From a behavioral perspective, thinking and emotional responding are examples of behavior and are subject to many of the same influences as more observable behaviors. Later in this chapter, we highlight several primary determinants of behavior from a behavioral perspective (which are further elaborated in detail in Chapter 2) as well as the various origins of cognitive and behavior therapies. Perhaps because of their different origins and frequently conflicting theories regarding the determinants of behavior, there has occasionally been an uneasy marriage between these two psychotherapy traditions. Indeed, the term cognitive behavior therapy incorporates several points of view that can, at times, be contradictory or even incompatible.

Many excellent resources describe cognitive-oriented therapeutic interventions geared toward the modification of evaluations, attitudes, underlying beliefs, and schemas (e.g., A. T. Beck, Rush, Shaw, & Emery, 1979; J. S. Beck, 2011; Burns, 1980; Dobson, 2010; Leahy, 2003; J. E. Young et al., 2014). Although we touch on cognitive therapy and cognitive change techniques
Throughout this book, we primarily highlight and emphasize the theory, rationale, and application of behavioral interventions within CBT. Even though cognitive and behavioral interventions can occasionally be at odds in relation to therapeutic assumptions and goals, we also strive to highlight areas of compatibility and instances in which integration is desirable or possible.

**Behavioral Interventions in CBT: Underlying Assumptions and Common Features**

In this section, we provide an overview of behavioral perspectives on abnormality and psychological disorders. We also briefly review several of the core underlying assumptions associated with behavior therapy and behavioral interventions. We then discuss some of the primary features that differentiate behavior therapies from other approaches.

**Behavioral Views on Abnormality**

Within psychology and psychiatry, “deviant” or “defect” models of abnormality predominate (Farmer & Nelson-Gray, 2005; Martell, Addis, & Jacobson, 2001). That is, individuals who have psychological disorders or who display problematic behaviors are often regarded as deviant or abnormal, principally on the basis of what he or she presumably has. Within cognitive therapy, for example, those with psychological disorders are often regarded as having maladaptive schemas that serve as psychological nuclei of behavioral and emotional disorders (A. T. Beck et al., 1990; J. E. Young et al., 2014). Within medical model approaches, diseases or dysfunctional biological processes are often presumed to underlie psychiatric syndromes (Charney, Sklar, Buxbaum, & Nestler, 2013). Within psychodynamic models, the quality, integration, and differentiation of internalized self and other mental representations and the relative maturity of inner defensive coping mechanisms are viewed as etiologically relevant for psychological disorders (Kernberg, Selzer, Koenigsberg, Carr, & Appelbaum, 1989). In each instance, the presumed internal defect that the person has (e.g., maladaptive schemas, aberrant neurochemistry, malevolent internalized self and object relations) is targeted for therapy; it is assumed that this internal anomaly must be changed, removed, or altered in some way if the person is to no longer be deviant or disordered.

Behavior theory and therapy have a different view. Within behavioral traditions, the search for internal causes of behavior is largely avoided. Although it is acknowledged that genetic endowments might predispose individuals to respond in certain ways when relevant situational features
are present (Skinner, 1971, 1989), the behavioral tradition is primarily concerned with what one does and the contexts within which behavior occurs (R. O. Nelson & Hayes, 1986b; Nelson-Gray & Farmer, 1999). Furthermore, from the behavioral perspective, notions of what constitutes normality and abnormality are found in cultural norms, values, and practices. Culture provides the context for referencing which behaviors are acceptable or valued and which are deviant (Baum, 2005). Notions of what are normal or abnormal behaviors occasionally shift as cultural values and practices change over time. In the mid-1800s in the United States, for example, the Louisiana Medical Association produced a report that proposed a mental disease unique to Black slaves called *draphetomania*, or a mania to seek freedom, which caused slaves to run away from their masters (Zimbardo & Gerrig, 1996). Similarly, before the mid-1970s, both the American Psychiatric Association and the American Psychological Association regarded homosexuality as a form of mental disorder (Morin & Rothblum, 1991).

From a behavioral perspective, the determinants of what might be regarded as abnormal behavior are no different from the determinants that shape and maintain normal behavior. What is regarded as “psychopathology” in some quarters is often viewed from a behavioral perspective as a “problem in living,” or a justifiable response to dysfunctional or stressful environments, which may be further exacerbated by inadequate behavioral repertoires for responding to or coping with life’s problems. Indeed, evidence suggests that the emergence of at least one episode of a major mental disorder by the end of early adulthood is the rule rather than the exception for persons in the general population (Farmer, Seeley, Kosty, Olino, & Lewinsohn, 2013; Moffitt et al., 2010). Consistent with such data, the behavioral perspective assumes that there is nothing inherently defective or deviant about persons who report emotional or behavioral problems.

**Behavioral Interventions Within CBT: Description and Application**

Some people have unpleasant reactions to terms such as *behavior therapy*, *behavior modification*, or *behaviorism*. As noted by Martell et al. (2001), such terms tend “to call up associations with rats, mazes, M&Ms, and an obsession with predicting and controlling people’s actions” (p. xxv). Although sometimes it is easy to understand how these reactions might have come about, it is also true that these reactions are often the result of a profound misunderstanding of behavior theory and behavioral approaches to therapy (Todd & Morris, 1983). Just like Martell and colleagues (2001), we ask that if you have any preconceptions about behavior theory and therapy, you suspend these for the time being because contemporary behavior theory and therapy might not be what you think it is.
A Focus on Behavior and Its Context

Behavioral perspectives are associated with a number of assumptions about the individual, the context within which he or she lives, and the factors that influence his or her behavior. As suggested earlier, psychological disorders from a behavioral perspective are defined by behavior, occurring both within the individual (sometimes called covert behavior) and as overt actions that can be observed by others (or overt behavior). Behavioral perspectives on psychological disorders are further concerned with the functional relationships that exist between the behavior of a person and the environment that establishes the context for such behavior. Within some forms of behavior theory, the three-term contingency represents the basic unit of analysis (Skinner, 1969). When applied to behavior therapy, the three-term contingency concept refers to the interaction of the person with his or her environment and includes three elements: the occasion within which behavior occurs, the behavior itself, and the consequences that follow behavior. When behavior therapists attempt to develop hypotheses about behavior, this framework is often used.

The first of these three elements, the antecedents of behavior, includes conditions or stimuli that set the occasion for behavior to occur. Antecedent conditions or stimuli can include specific persons, places, objects, or events. Among the factors that influence whether a person will engage in a particular form of behavior in a given setting is the person’s learning history for such behavior under similar conditions. That is, if a certain form of behavior was performed in similar situations before, and if such behavior resulted in reinforcing outcomes, then the behavior is more likely to occur in comparable future environments.

The second of these three elements, behavior, refers to anything a person does. This includes not only behavior that other people can potentially observe another person do, such as speak or perform some other physical movement, but also covert behaviors. Covert behaviors are those behaviors that occur “within the skin” or on the inside, and are at least observable or noticeable by the person within which they occur. Such covert behaviors would include thoughts, emotions, and physical sensations.

The last element of the three-term contingency, consequences, refers to the effect that behavior produces. Technically speaking, behavior is reinforced if the consequences that follow behavior increase the likelihood of that behavior again occurring on future occasions. Conversely, a behavior is punished if the consequences that follow decrease the likelihood of that behavior again occurring in similar future situations.

A Focus on Why People Act the Way They Do

When behaviorally oriented clinicians talk about the function of behavior, they are basically talking about why people behave the way they do.
Functionalism is based on Darwinian evolutionary principles (Farmer & Nelson-Gray, 2005; Rachlin, 1976). In Darwinian evolutionary theory, the physical structure of a particular species is determined by its associated function. Natural selection involves the selection of the most adaptive physical structures on the basis of functional properties associated with that structure—namely, those associated with the enhancement of gene fitness. In behavior theory, the behavior of an individual that is functional in particular environmental contexts (i.e., produces reinforcing consequences) is selected or made more likely, whereas behavior that is not functional (i.e., does not produce reinforcing consequences) is not selected or, over time, becomes extinguished.

Within functional or selectionist accounts of human behavior, behavior is largely, if not exclusively, determined (Hull, Langman, & Glenn, 2001). For selection to occur, there must be variation along some dimension because the absence of variation precludes the possibility of differential selection. In behavior theory, forms of behavior produced by an individual vary, and some units of behavior are selected because they prove more successful than others (Baum, 2005). Similarly, the selection of cultural replicators (e.g., customs, rules, values) involves the process of selection acting on variations and the transmission of selected practices from one member of a group to another through behavior transfer processes such as imitation, modeling, reinforcement for rule following, and arrangement of social contingencies (Baum, 2005; Schneider, 2012). Those cultural practices that prove to be the most beneficial or enhance fitness tend to be retained by a culture over time. Environmental determinism is the overarching process associated with the selection of variations in an individual’s behavior during his or her lifetime and in cultural practices over successive generations (Skinner, 1981).

Behavioral accounts are also often associated with the concept of contextualism. Contextual approaches to the study of behavior emphasize how events and behavior are organized and linked together in meaningful ways (i.e., “the act in context”). Contextualism, then, is primarily concerned with the context within which behavior is embedded or the contextual flow in which behavior occurs (Hayes, Hayes, Reese, & Sarbin, 1993).

Common Features Among Behavioral Assessments

The focus of contemporary therapies varies in accordance with underlying theory and presumed mechanisms of behavior change. Interpersonal therapies, for example, tend to focus on social behavior and relations with others. Cognitive therapies focus on automatic thoughts, underlying assumptions, and schemas. Humanistic therapies tend to emphasize immediate experiences, emotions, and the provision of validation by the therapist for these experiences and emotions. Psychodynamic therapies emphasize historical
material, mental representations of self and other, and the use of particular defense mechanisms. Biological therapies generally emphasize neurochemical functions and neurocircuit activity. Each form of therapy targets what is understood through associated theory to be the most central determinant or cause of problematic behavior. Consequently, the types of interventions used and the means through which they are delivered vary considerably across these general classes of therapies.

Contemporary behavior therapies are primarily concerned about the contexts within which a client’s problematic behavior occurs. This is because behavior therapists place emphasis on potentially modifiable antecedents and consequences associated with the maintenance of problematic behavior (Follette, Naugle, & Linnerooth, 2000). Behavior therapists are also concerned with the client’s behavioral repertoire on the basis of the idea that some clients display problematic behaviors because they have not yet learned alternative and more adaptive forms of action. In the case of behavioral deficits, for example, a behaviorally oriented therapist might seek to teach new behaviors that can replace or substitute for problematic behaviors. Behavior therapists also assess a client’s motivation for change. Generally, a behavior therapist thinks about the concept of motivation somewhat differently than do therapists from other orientations. Rather than viewing motivation as an inner drive or some other inner force that causes people to act, behavior therapists are more inclined to view motivation as a state or condition resulting from environmental events (an idea we develop more fully in the next chapter when describing establishing operations and rules). When viewed in this way, motivation is modifiable, something that can be increased or decreased as a result of environmental manipulations.

In the behavioral assessment of clients, several features associated with the functional context of behavior are assessed and evaluated (Farmer & Nelson-Gray, 2005; Hayes, Strosahl, Bunting, Twohig, & Wilson, 2004). Among these are the following areas:

- **The antecedents of problematic behavior.** Are there situations in which problematic behaviors frequently occur? Are there common internal antecedents that immediately precede such behavior? What environmental cues have been previously associated with reinforcement for behavior and accordingly occasion behavior when present in current situations? Are there verbal rules that govern problematic behavior (e.g., “If I make myself vomit afterward, I can eat this ice cream and not gain any weight.”)? Are there establishing operations that increase the reinforcing value of certain behaviors (e.g., engagement in overly restrictive dieting practices as an establishing operation for subsequent binge-eating episodes)?
The consequences of problematic behavior. What are the consequences that follow problematic behavior? Are the short-term consequences similar to or different from the longer term consequences? Are positive reinforcing (rewarding) consequences instrumental in the maintenance of behavior, or are negative reinforcing (relieving) consequences more likely influencing behavior?

The client’s learning history as it relates to current problematic behaviors. What factors in the client’s past shaped and established the behaviors that the client seeks to change? Are these factors of any influence today?

The client’s current behavioral repertoire. A comprehensive assessment of the client’s behavioral repertoire would cover four response domains: overt motor behaviors, thoughts and mental images, emotions, and physiological sensations.

Overt behaviors. What forms do the client’s problem behaviors take? Does the client display effective coping, social, and problem-solving skills? Is the person’s behavioral repertoire sufficiently large to allow for the possibility of responding flexibly in common situations? Do avoidance coping repertoires predominate? Are there behavioral excesses that are problematic (e.g., substance abuse, gambling, risky sexual behavior)?

Thoughts. Is the person plagued by negative evaluations of self, world, or future? Does the person confuse evaluations of events and objects with the actual events and objects (“I am a bad person,” versus “I am having the evaluation that I am a bad person, but thinking this doesn’t necessarily make it so.”)? Are experiences such as emotions and evaluative thoughts about those experiences fused (e.g., “Anxiety is bad and must be avoided.”)? Is the client preoccupied with the past or anticipated future possibilities? Is the client able to be fully in the present moment and respond as effectively as possible to what is occurring?

Emotions. Does the client excessively experience negative emotions? Are the client’s expressed emotional experiences appropriate in situations in which they are displayed (e.g., are they restricted, exaggerated, intense, or excessive)? Is the client highly emotionally reactive or flat in his or her emotional responsiveness?

Physiological sensations or responses. Do certain physiological responses define part of a larger response pattern (e.g., flushing or sweating while also experiencing anxiety-related...
emotions)? Does the client associate normal physiological activity with catastrophic outcomes (e.g., an increased heart rate is associated with an impending heart attack, shortness of breath is associated with smothering, feelings of fullness after a meal are associated with becoming fat)?

- The client’s motivation for change. Does the client indicate a willingness or motivation to change his or her behavior? Can the client articulate personal values or goals? Is the client’s current behavior consistent with his or her values or goals? Is the client aware of likely outcomes associated with unhealthy patterns of behavior and, if so, does this affect the client’s behavior?

Decisions as to which behavioral interventions are appropriate are decided individually for each client given the outcomes associated with assessments of these areas. That is, behavior theory and therapy suggest that the factors that influence behavior vary across individuals. Even though two people may have similar problematic behavior patterns, it is recognized that factors accounting for these behavior problems likely differ. Several typologies of alcoholism, for example, suggest at least two distinct subtypes. One type is characterized by persons who display anxious-dependent traits, binge drinking versus continuous episodes, and avoidant coping styles, and the other type is exemplified by an early age of onset, continuous versus episodic binge drinking, and engagement in aggressive or criminal behavior when intoxicated (Wulfert, Greenway, & Dougher, 1996). Whereas the form of problematic behavior might appear to be the same among members of both groups (e.g., excessive drinking), the hypothesized maintaining factors associated with each subtype—negative reinforcement processes in the former and positive reinforcement processes in the latter—suggest different functional properties associated with the same behavior across individuals.

Common Features Among Behavioral Interventions

In Chapters 4 through 10, we discuss specific behavioral interventions in greater detail. There are a number of general characteristics of behavioral interventions (Farmer & Nelson-Gray, 2005; O’Leary & Wilson, 1987; Spiegler & Guevremont, 2010), some of which other schools of therapy share, including the following:

- An empirical orientation, as reflected in its grounding in the basic behavioral sciences, use of empirically supported intervention strategies, and use of ongoing assessments of the client’s behaviors targeted for therapeutic change.
- Therapist–client collaboration, in which the client is an active participant in the therapeutic process and the client and therapist
work together to develop a formulation of the client’s problem areas and a plan for therapy based on this formulation.

- An active orientation, in which clients are actively encouraged to do something about their problem areas rather than only talk about them.

- A flexible approach, in which hypotheses concerning the client’s problem areas undergo continuous testing and evaluation, with the overall client formulation and corresponding therapeutic activities modified and adjusted as warranted by new information or observations.

- An emphasis on environment–behavior relations, with clients described in terms of what they do; that is, the actions they perform and the thoughts, emotions, and physical sensations they experience. These actions are further conceptualized with reference to the situational contexts within which they occur.

- A time-limited and present focus, in which the time allotted for therapy varies in accordance with the nature and severity of the problem areas addressed in therapy, with emphasis placed on one’s current situation rather than the past.

- A problem and learning focus, in which solutions to problematic behaviors are sought, with these solutions often geared toward teaching new or adaptive behaviors, changing aspects of dysfunctional environments, or providing relevant information about behaviors of interest.

- An emphasis on both change and acceptance processes, in which interventions that promote therapeutic change are undertaken in a context that conveys valuation of the client and encourages the development of client self-validation and the adoption of a nonjudgmental approach to the experience of thoughts, feelings, and bodily sensations as they occur.

AN OVERVIEW OF THE HISTORY OF BEHAVIOR THERAPY AND BEHAVIORAL INTERVENTIONS WITHIN CBT

A review of the history of the behavior therapy movement establishes a context for understanding the foundational role of behavioral interventions in CBT. The next sections offer a brief overview of the history of the movement. More detailed accounts are provided elsewhere (Dobson & Dozois, 2001; Farmer & Nelson-Gray, 2005; Hayes, 2004a; Kazdin, 1978; O’Donohue, 1998).
Basic Theories of Learning

The theoretical roots of contemporary behavioral interventions are found in the foundations of modern learning theories. In the late 1800s and early 1900s, Russian physiologists such as Ivan Sechenov, Vladimir Bechterev, and Ivan Pavlov investigated reflexive and conditioning processes. This body of research eventuated into the learning paradigm referred to as respondent or classical conditioning. The basic idea behind classical conditioning is that some environmental stimuli, when presented in a particular way, yield a reflexive, innate (or unlearned) response. For example, when a rubber hammer is struck right below the kneecap (unconditioned stimulus, or UCS), a reflexive knee-jerk response follows (which in this case would be an unconditioned response, or UCR). The knee-jerk is an unlearned, innate response to the type of stimulation that a rubber hammer strike against the knee produces.

In the case of classical conditioning, Pavlov (1927) and colleagues demonstrated that a neutral object or event, when repeatedly paired or associated with the UCS, will come to acquire certain stimulus properties over time (i.e., this previously neutral stimulus will become a conditioned stimulus, or CS). This CS, in turn, will come to elicit a response (i.e., a conditioned response, or CR) under some circumstances that appears quite similar to the UCR produced by the UCS. Pavlov and colleagues further demonstrated that CRs often occurred in the presence of stimuli that resembled or were similar to the CS in some way, a process called generalization. Additionally, Pavlov found that if the CS was repeatedly presented without the UCS, the CR would eventually disappear. This process was referred to as extinction.

In clinical contexts, classical conditioning processes are perhaps most evident in the conditioned emotional responses that some clients have acquired to stimulus events that, on the surface, seem quite neutral. This is perhaps most strikingly apparent in the case of emotional reactions to trauma-related stimulus cues. What becomes a traumatic event for an individual can often be thought of as a UCS that, at the time of the original trauma, elicits a number of reflexive or unlearned responses (UCR), such as fear. By definition, persons with posttraumatic stress disorder have strong emotional reactions, or CRs, to events or objects (CSs) that are in some way similar to those that were present at the time the original traumatic event occurred. Even though these CSs, or trauma-related cues, are no longer directly associated with the original UCS, they nonetheless continue to elicit CRs that look and feel like the original UCRs. Classical conditioning processes have similarly been suggested in the acquisition of some phobias (Merckelbach, Arntz, & deJong, 1991).

During the late 1800s and early 1900s in the United States, experimental investigations into learning processes were also beginning to take place, starting with Edward Thorndike’s (1898) doctoral research. In his research with
hungry cats, Thorndike demonstrated that the time latencies for displaying escape behaviors that allow access to food (e.g., pulling on a wire loop to open a door) decreased gradually and steadily over successive trials. In accounting for his observations, Thorndike proposed that it was the consequences associated with the cats’ actions that determined whether such actions would be strengthened. If a response typically resulted in reward—in this case, access to food—then it would be strengthened. Those actions, however, that did not result in reward would, over time, become weakened. In Thorndike’s theory, referred to as the *law of effect*, the learning process and associated behaviors are influenced by the consequences that follow behavior.

B. F. Skinner further developed and refined Thorndike’s theory of instrumental behavior, which resulted in an *operant theory of behavior*. An operant was defined by Skinner (1938) as a unit of behavior that operates on the environment by producing consequences. Whereas in classical conditioning a stimulus (S) event elicits a response (R), or $S \rightarrow R$, in operant conditioning, the concept of selection by consequence (C) was emphasized, or $R \rightarrow C$. That is, Skinner suggested that much of the behavior that people display is selected and shaped over the course of a lifetime by the consequences that such behavior produces. Skinner regarded selection by consequence as a form of ontogenetic selection. In addition to ontogenetic selection processes, Skinner (1981) proposed that human behavior is also the result of phylogenetic selection processes (or Darwinian or natural selection) and cultural selection processes (or the selection of cultural practices based on their associated consequences). A common core element associated with each form of selection (phylogenetic, ontogenetic, and cultural) is evolutionary theory. As suggested by Skinner (1981), human behavior is

the joint product of (i) the contingencies of survival responsible for the natural selection of the species and (ii) the contingencies of reinforcement responsible for the repertoires acquired by its members, including (iii) the special contingencies maintained by an evolved social environment. (Ultimately, of course, it is all a matter of natural selection, since operant conditioning is an evolved process, of which cultural practices are special applications). (p. 213)

When applied to accounts of human behavior, the theory of selection by consequences suggests that the effects produced by behavior directly influence future behavior (see also Biglan, 2003). Several of the behavioral interventions described in this book are based on this basic principle.

**Early Applications of Learning Theories to Behavior Change**

Although the first empirical observations that eventuated into modern learning theory go back to the late 1800s and early 1900s, it was not until
the early 1960s that therapeutic interventions based on behavioral principles began to have widespread influence. There were, however, some early efforts to apply learning theory to behavior change. Examples include the work of Mary Cover Jones (1924), who demonstrated that a child's fear of an animal could be decreased through counterconditioning methods, in which the feared stimulus (in this case, a rabbit) is paired with a positive stimulus (in this case, the child's favorite food). The bell and pad method for treating enuresis developed by Mowrer and Mowrer (1938) is another example, as is Andrew Salter's (1949) book-length treatise on therapy methods grounded in Pavlovian conditioning. These early efforts to translate behavioral principles and modern learning theory into behavior change techniques, however, did not result in an immediate impact on clinical research and practice.

The Emergence of Behavior Therapy

More than 50 years elapsed between the first experimental studies on basic learning processes and the formal beginnings of the behavior therapy movement. In the late 1950s, important simultaneous developments took place in three countries, the aggregate of which heralded the beginnings of behavior therapy (Kazdin, 1978). In 1958, Joseph Wolpe, a psychiatrist working in South Africa, published the first manualized treatment protocol. The treatment was based on the behavior-change principle that he termed reciprocal inhibition, which, in turn, was grounded in Pavlovian and Hullian behavior theory. Wolpe suggested that anxiety or neurotic states could be reduced or eliminated by pairing the experience of anxiety with an incompatible feeling state, such as relaxation. The publication of the treatment procedure allowed clinicians and researchers worldwide to evaluate the efficacy of this approach and its associated underlying theory.

Hans Eysenck (1959), a psychologist in England, published a paper that introduced the term behavior therapy to a broad audience. (Although Lindsley, Skinner, & Solomon [1953] as well as Lazarus [1958] published works before Eysenck that used the term behavior therapy, the dissemination of these works was more restricted.) This was followed in 1960 with the publication of an edited book that described a number of treatment methods, such as desensitization, negative practice, and aversion therapy (Eysenck, 1960). Evident among these treatment techniques was the influence of Pavlovian learning theory, most notably notions of classical conditioning and extinction. This book was the first to bring together diverse treatment applications under the name of behavior therapy. In 1963, Eysenck established the journal Behaviour Research and Therapy, the first professional journal of its type.

In the United States during the late 1950s and early 1960s, behavioral techniques based on Skinnerian principles of operant conditioning were being
developed and evaluated. Operant learning principles and methods were applied to the behavior of children (Bijou & Baer, 1966), persons with developmental disabilities (Lovaas, Freitag, Gold, & Kassorla, 1965), and those with psychosis (Ayllon & Michael, 1959). By the mid-1960s, the term behavior modification became widely applied to the practice of applying learning principles to producing behavior change (e.g., Krasner & Ullmann, 1965; Ullmann & Krasner, 1965). The 1970s also witnessed an emergence of behavioral assessment technologies to complement behavior modification approaches (Ciminero, Calhoun, & Adams, 1977; Goldfried & Kent, 1972; R. O. Nelson, 1977).

The Emergence of CBT

Although early manifestations of cognitive therapy can be found in the work of George Kelly (1955), Albert Ellis (1957), and Aaron T. Beck (1963), it was not until the 1970s and 1980s that contemporary CBT became firmly established and gained considerable momentum. Bandura's (1977) social learning theory, later termed social cognitive theory (Bandura, 1986), elevated symbolic cognitive processes to determinants of behavior. In his theory of reciprocal determinism, for example, behavior, cognitive factors, and environmental influences reciprocally and continuously interact and influence one another. For his concept of self-efficacy, Bandura proposed that an individual's beliefs about his or her personal efficacy, or ability to successfully perform coping behavior, were determinants of whether such behavior will be demonstrated. The social learning theory movement was influenced not only by fundamental learning principles but also by principles derived from basic research in experimental and social psychology (O'Donohue, 1998). At this time, the “cognitive revolution” was well underway within academic psychology, and clinicians and researchers sought to incorporate cognitive mediators of learning into their models of abnormal behavior. In so doing, greater use was made of unobservable, hypothetical constructs to explain behavior. Although this was already a feature of some learning theories (e.g., Wolpe, Eysenck), the use of nonobservable or nonmanipulable constructs or processes to explain behavior was generally avoided by those from an operant learning perspective (e.g., Skinner).

Beginning around the late 1970s, interest in behavior therapies began to wane. One factor that contributed to this was the cognitive revolution, now firmly established and highly influential within academic psychology. Another was the publication of several groundbreaking scholarly works that described new and innovative therapies largely consisting of cognitive restructuring interventions (see Dobson & Dozois, 2001, for a review), including A. T. Beck and colleagues’ (1979) treatment manual titled Cognitive Therapy of Depression. Similarly, around this time, a number of
influential books on CBT were beginning to be published (e.g., Mahoney, 1974; Meichenbaum, 1977).

A defining feature of cognitive therapies, both historically and currently, is the strong emphasis on the cognitive mediation of behavior—specifically, how individuals interpret their world, view themselves, or think about the future (A. T. Beck et al., 1979). Central cognitive concepts such as automatic thoughts, processing biases, core beliefs, and schemas are often used to explain variations in emotion and behavior and are central treatment targets in many cognitive therapies. From a cognitive therapy perspective, primary therapeutic tasks involve assisting clients by identifying their idiosyncratic way of thinking and modifying thought processes through rational examination and logic (e.g., examining the evidence for or against a thought, evaluating the meaning one associates to a particular thought, hypothesis testing the validity of certain thoughts, replacing illogical or biased thoughts with more accurate ways of thinking).

**Toward the Next Generation of Cognitive and Behavior Therapies**

The past two decades has witnessed the emergence of a new generation of cognitive and behavior therapies (Hayes, 2004b). This latest generation represents a marked theoretical evolution over previous generations and has been applied to phenomena that received comparatively little emphasis in previous iterations of CBT. For instance, many new-generation approaches such as acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 2012) and dialectical behavior therapy (DBT; Linehan, 1993a, 2015) emphasize factors such as emotion and language. ACT, DBT, and other recent CBTs also incorporate mindfulness and acceptance principles, techniques, and practices into the framework of therapy (Hayes, Follette, & Linehan, 2004; Segal, Williams, & Teasdale, 2002). Emphasis on values identification and clarification in ACT and on interpersonal relations in DBT, functional analytic psychotherapy (Kohlenberg & Tsai, 1991), and integrative behavioral couples therapy (Jacobson & Christensen, 1996) also represent new additions to the traditional CBT frameworks.

Similarly, behaviorally oriented researchers and clinicians have incorporated into their models the important symbolic function of language. Among other functions, language provides persons with emotional experiences without exposure to actual physical events or objects represented by words (Forsyth & Eifert, 1998). For example, the phrase “big, hairy tarantula” is often enough to produce some emotional discomfort in a person with a spider phobia. Emotions in humans are closely tied to language (Forsyth & Eifert, 1998), as exemplified by the frequent pairing of the emotional experience (anxiety) with the evaluation of that experience (“it’s bad”), such that
the two become functionally equivalent ("anxiety is bad"). New behaviorally oriented theories of cognition and language have emerged in recent years (e.g., Hayes, Barnes-Holmes, & Roche, 2001), as have therapies tied to this emerging perspective (Hayes et al., 2012).

Another key feature that distinguishes this most recent generation of approaches from previous generations is their collective focus on the context, broadly defined, in which behavior occurs (e.g., Biglan & Hayes, 1996; Martell et al., 2001). That is, comparatively less emphasis is placed on the modification of the physical environment to alter behavior or on the modification of the content of particular behaviors, thoughts, and emotions to promote therapeutic change. Rather, in these newer forms of CBT, a greater emphasis is placed on the modification of contexts in which these responses are experienced. For instance, mindfulness-based approaches encourage clients to experience their thoughts from a context within which thoughts are regarded simply as thoughts, not literal truths or unqualified representations of reality. Similarly, acceptance-based interventions are geared toward altering the context from one in which unwanted thoughts and emotions must be changed or eliminated to one in which such experiences are accepted, valued, and used adaptively. Taken together, this latest generation of CBTs more broadly deals with the range of human experience and, in so doing, delves into areas and change principles not previously acknowledged or systematically addressed in more traditional behavioral and cognitive therapies.

LOOKING AHEAD

This book is intended to serve as a general reference, and our primary goal is to offer an informative and easy-to-understand presentation on the basic theory and essential applications of behavioral interventions within the CBT framework. In the course of our presentation, we provide a description of the theory and practice of behavior therapy for adults that we hope is both useful and accessible to students and clinicians with varying degrees of behavioral training. We aim to provide some insight into how therapists with a behavioral perspective think about a client, his or her problem areas, and the therapeutic process. Finally, our hope is that readers will find the behavioral interventions described in this book to be useful additions to their therapeutic armamentarium.

Chapters 2 and 3 of this volume deal with behavioral assessment, case formulation, and treatment planning. Within these chapters, we outline the principles, goals, and structure of the initial assessment sessions. In so doing, we delineate the objectives, processes, and applications of behavioral assessment approaches used in the development of a case formulation and
explain how data from these assessments inform treatment selection and the evaluation of therapy outcome. We also summarize the primary elements of a behavioral case formulation of the client's problem areas and outline the procedures and considerations associated with developing and exploring the formulation with the client.

Chapters 4 through 10 detail specific behavioral interventions including indications for their application, steps associated with their implementation, and markers of resultant therapeutic change. Chapter 4, for example, describes several strategies used in behavior therapy to increase or decrease clinically relevant behaviors by changing the environment. Procedures discussed in this chapter primarily involve the altering of the antecedents or consequences that occasion clinically relevant behaviors.

In Chapter 5, we describe examples of behavioral intervention strategies for altering thinking patterns. Within the chapter, emphasis is placed on the functional properties of detrimental modes of thinking rather than the modification of distorted or inaccurate thought content. Chapter 6 describes a set of interventions designed to help clients learn how to engage in particular behaviors in an effective and flexible manner to attain goals or enhance quality of life. The emphasis here is on changing behaviors by building skills. Several contemporary CBT-oriented treatments include skills training as a key component of the overall treatment approach given that skills-based interventions have demonstrated effectiveness for a variety of clinical problems. Chapter 7 builds on this earlier chapter by emphasizing skill-based interventions commonly used to enhance interpersonal effectiveness.

The next three chapters primarily highlight interventions for problems with mood and emotions. In Chapter 8, we describe a behavioral approach to the therapy of depression that is gaining broader empirical support as an effective therapy for an array of clinical problems, behavioral activation. In this chapter, we not only describe behavioral activation as a therapeutic technique but also use this as an opportunity to illustrate several behavioral perspectives on psychological disorders. Chapter 9 describes an intervention framework for reducing unjustified and maladaptive emotional responding and corresponding behavioral tendencies. Exposure-based interventions involve exposing the client to stimuli that elicit an emotional response and blocking action tendencies that are consistent with the unwanted or undesirable emotional response. Although exposure interventions are most commonly used and perhaps most effective for clinical problems related to anxiety and fear, they are also increasingly applied to other clinical problems and emotional experiences. In Chapter 10, we describe emotion regulation interventions for assisting clients in tolerating or coping with uncomfortable emotions.

Chapter 11 describes techniques and interventions for navigating therapeutic challenges that are commonly encountered. Within that chapter,
we develop a behavioral framework for thinking about and responding to behavior that interferes with treatment in the therapeutic context. Finally, in Chapter 12, we discuss considerations and approaches for bringing therapy to a close, emphasizing the importance of addressing termination issues periodically throughout therapy and as early as the treatment planning stage. We also describe the potential benefits of adding a continuation phase and booster sessions after the conclusion of the acute phase of therapy as a means for reducing the likelihood of relapse and problem recurrence, respectively. In the course of this discussion, we also describe several intervention strategies for relapse prevention.

SUMMARY

CBT is increasingly regarded as the treatment of choice for a wide variety of psychological conditions and psychiatric disorders. Theoretical elements that distinguish behavior therapy approaches from those of other schools of therapy include the following:

- Whereas most schools of therapy emphasize internal causes of behavior, behavior theory and therapy place emphasis on the environment as the primary determinant of behavior.
- Behavior theory and therapy are based on principles of determinism and functionalism, in which behavior that is functional (i.e., produces reinforcing consequences) is selected or becomes more probable over time, whereas behavior that is not functional (i.e., fails to produce reinforcing outcomes) is not selected.
- In behavior therapy, the three-term contingency (i.e., the antecedents of behavior, the behavior itself, and the consequences that behavior produces) often constitutes the basic level of analysis and serves as a guide for intervention selection, application, and evaluation.
Behavioral assessment is an approach for assessing persons, what they do, and the circumstances under which they are most likely to engage in behaviors of clinical interest (R. O. Nelson & Hayes, 1986a). When viewed from this perspective, behavioral assessment is not defined by a set of techniques. Rather, the behavioral assessment approach is primarily guided by the theoretical principles on which it is based. One key principle is that behavior varies in relation to the antecedent conditions that occasion behavior and the consequences that behavior produces. Together, these constitute the context of behavior. A primary goal associated with behavioral assessments is the identification of potentially modifiable contextual features associated with maintenance of problematic behavior (Follette, Naugle, & Linnerooth, 2000). Knowledge of the common contexts for behavior can suggest hypotheses about why a person does what he or she...