

Cognitive-Behavioral Therapy: Basic Principles and Applications

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CHAPTER 2

HISTORICAL CONTEXT OF COGNITIVE THERAPY

Philosophical precursors

The fundamentals of cognitive therapy have been around since the ancient Greeks. The idea that our perceptions determine the reality that we experience was clearly a focus of Plato's idealism. In a classic story, known as "Plato's Cave", Socrates describes how a group of men who are chained facing a wall observe shadows dancing across the wall in front of them. They have never known that these shadows are due to figures near the entrance to the cave moving behind them in front of a candle. To these men, the shadows are reality. One day one of the men turns around and sees that there are figures moving behind him casting their shadows across the wall. From that day on, the "reality" of the shadows no longer exists. Reality is now defined as the figures that one sees outside the cave. We might view cognitive therapy as the attempt to get the patient to unchain himself and see outside the cave.

Plato's philosophy was the search for "ideal forms" or qualities---whether Socrates spoke of geometry, love, justice, or political structure. The Platonists believed that these ideal forms were innate to the human mind and that one only needed to "educate" (that is, draw it out of the mind) through questioning. Truth and reality were entirely determined by the Platonic ideals. Socrates attempted to demonstrate this in one of the dialogues by asking a series of directed questions of an uneducated man about the principles of geometry. From these questions Socrates demonstrated that the "ideals" of geometry were already innate, but only had to be extracted through questioning (Cornford, 1957)..

The idea that "reality is determined by cognition" has a long history in Western philosophy. For example, Kant's (1782/1988) philosophy of mind was based on the view that reality is never directly knowable, but rather is "known" through "categories of thinking". Some of these "categories" are viewed as innate--prior to experience: for example, categories of quantity, intensity, cause and effect. According to Kant, all knowledge was based on the "categories" (which today we would call *schemas*). Consequently, reality was never directly knowable--we only knew the schemas.

British empiricists rejected Kant's idea of innate categories and argued that our understanding of reality was simply a matter of "associations" of events. Thus, if we saw that two events occurred together we might correctly or incorrectly conclude that one was a cause of the other. Empiricists like Hume and Bentham were more interested in examining the factors that led to association and learning---such as the importance of reward or punishment--and less concerned

with understanding the specific categories. The importance of empiricism is that the emphasis changed from "knowing the universal categories" (such as Plato or Kant would have argued) to examining how, in the real world, we came to associate one stimulus with another or viewed one factor as a cause of another. Since empiricism argued that knowledge is somewhat arbitrarily based on experience---and argued against universal categories---it followed that "knowledge" was precisely in one's point of view. Thus, knowledge became "relativistic" just as moral rules became relativistic. Cognitive-behavioral therapy is based on a model that cognition and perception may often be based on arbitrarily associated events and that moral rules are such individual constructions (rather than being universal ideals). Thus, the early founder of cognitive therapy, George Kelly (1955) might say, "That is *your construction of reality*", as if all constructions of reality are on equal footing.

The emphasis on "how we experience the world"---rather than the emphasis on universal innate categories---gave rise to phenomenological theories of knowledge (Husserl, 1960). The phenomenologist is less interested in what "reality really is" and more interested in how reality is experienced---that is, the "phenomenal experience". Cognitive therapy is derived from this tradition---although the therapist may assist the patient in testing his cognitions against "reality"---there is considerable emphasis in cognitive theory on the "subjective" experience of the patient.

The philosophical traditions of examining how the individual constructs reality and how subjective experience is a valid subject of inquiry are the cornerstones of cognitive therapy. One could say that cognitive theory is derived from both the empiricism of the British associationists and the subjectivism of the phenomenological school. These traditions are integrated in what I would call "dynamic structuralism"---that is, the recognition that the structures of experience (schemas) are continuously modified by the individual's interactions with reality.

In a sense, the cognitive therapist assists the patient in "deconstructing" his experience. Just as the deconstructionists might argue that the meaning of a text is in the reader (Derrida, 1973; Fish), the cognitive therapist assists the patient in recognizing that the meaning of experience is in the perceiver. However, unlike the deconstructionists, who seem to imply that reality is unknowable, the cognitive therapist has a more "optimistic" view---that is, that the perceiver's (patient's) beliefs can be "tested" against "reality". Cognitive theorists are not empirical nihilists like the deconstructionists: rather, we see ourselves as "structural-empiricists". This implies that the structures of knowledge---the patient's schemas---may be tested in the real world.

Developments in clinical psychology

Much of psychology prior to the 1970s was dominated by psychoanalytic theory and learning theory. The "cognitive revolution" was slow in development and seemed to come through the "back door" into mainstream psychology. In psychodynamic theory, there was an increasing emphasis on ego functioning as opposed to drive theory. Heinz Hartmann (1939/1958) proposed that the ego is "preadaptive"---that is, the ego's ability to recognize and process reality was partly initially independent of drive. Roy Schafer's work on "neurotic styles" indicated

that different personality types had different styles of experiencing reality. The emphasis in Schafer's writing was to describe the phenomenology of these different styles of thinking. Similarly, Horney's (1945-; 1950) and Sullivan's (1953) description of the patient's ego functioning---somewhat removed from the psychic energy model of the earlier Freud---influenced Beck's thinking (Thase & Beck, 1995).

George Kelly's (1955) *Psychology of Personal Constructs*, which initially appeared in two volumes, proposed a theory of psychopathology entirely based on cognitive processing. Kelly argued that anxiety, depression, anger, and paranoia were consequences of the individual's "construction of reality". Kelly's use of "constructs" is precisely what contemporary theorists describe as "schemas". Kelly suggested that people have idiosyncratic constructs which are bipolar. For example, one individual might view events through the construct "strong", but claim that the opposite of "strong" is "feminine". Another person might claim that the opposite of "strong" is "helpless". Kelly proposed that individuals differed in the content of their constructs, the degree to which their constructs were open to disconfirmation, and the degree to which information might be assimilated to a construct. Individuals also differed in the complexity and differentiation of their personal constructs. Kelly introduced the idea of "constructive alternativism", which proposes that individuals differ in their ability to project alternatives or options. "Constructive alternativism" became an important intervention in Beck's (1979) theory of overcoming hopelessness. Specifically, the hopeless patient is assisted in constructing alternatives to his problems, linking him to potential action.

Kelly's work had more influence on British psychology than on American psychology, probably because of the domination of clinical psychology by psychodynamic and Rogerian theorists who viewed his model as overly intellectualized and not adequately focused on motivation and unconscious processes. Furthermore, Kelly's style of writing is demanding and philosophically oriented, making it less appealing to the reader. However, I would suggest that contemporary cognitive therapists would be well served to read Kelly in the original.

Albert Ellis's *rational emotive therapy*--which was developed in the 1960's-- was an important precursor to Beck's work and the cognitive-revolution. Ellis, originally a psychoanalytically-oriented sex and marriage therapist, proposed that pathology was entirely due to irrational distortions such as "shoulds"---"I should be successful at everyone" or "I should be liked by everyone"--- "awfulizing" ("It's awful that I don't succeed") and low frustration tolerance ("I can't stand waiting"). Ellis has proven to be a prolific author, generating books on marriage, sex, substance-abuse, procrastination, and a range of other topics for both popular and professional audiences (Ellis, 1962; 1971; 1973; 1985; Ellis & Grieger, 1977). Although all cognitive therapists are in debt to Ellis for his contributions, his work did not have as great an effect as Beck's work on clinical research and training. This may be due to a number of factors: first, Ellis was never part of an academic or medical school training facility, thereby lacking the influence that others might have; second, Ellis's model is a

general model that seems to reduce all of psychopathology to a few cognitive distortions and shoulds. In contrast, Beck's model allows us to look at specific cognitive distortions and schemas for each diagnostic category-- a factor that is of considerable importance to a theory of psychopathology; third, Ellis's work seldom draws on the considerable research on cognitive and social psychology, whereas Beck's model is more consistent with and often more derived from current research and theory in psychology; and, fourth, because of the comprehensive nature of Beck's model, Beck's theory and therapy appears to be more integrative of other models than Ellis's approach (see Alford & Beck, in press). Despite these differences, Ellis and his colleagues continue to have considerable influence in the field of cognitive-behavior therapy.

Structure and development

The 1970's was a veritable cognitive revolution in psychology. There was increasing importance placed on the study of how people processed information and the effect of categories on attention and memory. In developmental psychology, Jean Piaget's structural theory of child cognition gained considerable popularity, even though his influence in European psychology was strong since the 1930's. Piaget (1954; 1965; 1970; see also Furth, 1969) emphasized that it was more important to identify and describe qualitative stages of thinking rather than simply errors in thinking. Piaget, influenced by Kant's model of innate categories, attempted to show how Kant was wrong in assuming that these categories were innate. Rather, Piaget demonstrated how categories such as number, quantity, volume and space developed through qualitative stages. Just as Piaget studied the idiosyncratic ideas of children of different ages, Beck (1976; 1978; 1990) delineated the idiosyncratic ideas of people who were depressed, anxious, or angry. Both Piaget and Beck have advanced structural theories (see Leahy, 1995) which focus on the systematic structure or logic of thinking rather than whether the individual (child or patient) is erroneous in his thinking. Thus, the "growth of thinking" is described by structuralists in terms of the kinds of "theories" that individuals have, rather than simply their acquisition of information that is stored in memory as a copy of reality.

The emphasis on the structure of thinking rather than simply the content of information is reflected in work on categorical perception. For example, researchers on infant perception and cross-cultural cognition demonstrated that early perception is categorical--that is, infants will treat a range of stimuli as belonging to the same perceptual category even though the visual or auditory stimuli show considerable variation. For example, infants categorize color into specific groups, treating all members of the group as similar even though they differ in wavelength. Memory was also determined by categorical "fit". Even during infancy, wavelengths that are more "representative" of a category (e.g., a "good blue"), were more easily recalled than wavelengths on the "fuzzy" boundary of a color category. Similar categorical perception was demonstrated for sound, speech, and figures (see Bornstein, 1984; Rosch, 1978).

Developmental researchers in the 1970's and through the 1980's demonstrated the ubiquity of categorization, its innate and cross-cultural qualities, and its substantial effect on recognition and recall. This work appeared to

contradict simple learning-theory models of "associationism"---that is, that all stimuli are equally associable. Categories seemed to preempt simple stimulus-response links. Memory was determined by categories---a concept that found its way into social psychology in the work on schematic processing.

The emphasis on innate categories (or at least on the interaction between a predisposition to structure reality in specific ways), was especially important in linguistic or developmental linguistic theory. Chomsky's important critique of Skinner's *Verbal Behavior*, demonstrated the futility of a simple learning model of language. According to Chomsky (1968) , language is too complex and too universally similar to be learned by simple reinforcement. In fact, language is so complex that adult human experts on language are unable to write comprehensive rules for language acquisition. Consequently, Chomsky, in his books *Aspects of a Theory of Syntax* and *Language and Mind*, proposed that all human infants are equipped with the ability to learn human language--an ability that psychologists referred to as *language acquisition device* (LAD). This LAD is similar to the Platonic ideals or Kant's "synthetic a priori" (innate categories of knowledge). Thus, humans are born with a theory about what language will look like. Humans are *language learners*. Thus, according to Chomsky, language acquisition is not arbitrary but is rather constrained by the structure of human knowing. One might argue, that Chomsky's psycholinguistics was the most truly structural theory of the 1970's.

Cognitive-social psychology

Social psychology in the 1970's increasingly became *cognitive-social psychology*. Researchers were interested in cognitive processes involved in impression-formation, decision-making, self-perception, motivation, and memory. Information-processing models became popular in describing, for example, how people weighted information in forming impressions about others. Of particular relevance to the development of Beck's cognitive theory was new research on *schematic processing in memory and research on attribution theory*.

Schematic/semantic memory. Earlier models of memory were based on the idea that memory was a "copy" of reality, with decay of memory determined by factors such initial repetition or time elapsed. In contrast, schematic models of memory proposed that people form categories or *schemas that guide attention and memory*. For example, in one study subjects were given information that a person that they would read about was either "extroverted" or "introverted". Subsequently, both groups were given the same passage to read about the person and then asked to recall what they read. Memory was schema-consistent: subjects who were told that the person was extroverted not only recalled more information consistent with that attribute, but they also *falsely recalled* information consistent with the schema: that is, they made up information consistent with the view that the person was extroverted. In another study the schema was presented *after* the subjects were asked to read a passage about a woman. One group was told that the woman was a lesbian, the other group was not given this information. Subjects in the lesbian-schema group falsely recalled more information consistent with the idea that the woman was a lesbian.

Numerous studies since then have indicated that schemas can have a

dramatic effect on memory. Loftus (1980; Loftus & Ketcham, 1995) has shown that subjects who are told that they were lost in a mall when they were younger actually come to believe that they were lost and make up stories consistent with this belief. Loftus has argued that her research casts doubt on the *repressed memory* phenomena that are the foundation of claims about early abuse. In any case, the foregoing studies are an important component of the research and theoretical foundation of cognitive theory, demonstrating that **schemas direct memory.** When we discuss Beck's cognitive theory, we will see how important schemas are in determining the development and maintenance of depression and anxiety.

Attribution theory. **Fritz Heider** (1958) was the forerunner of contemporary cognitive-social psychology, interested in what he called "naive psychology"---that is, how the average person formed psychological concepts such as intention and motivation or how individuals explained behavior. Heider's work had considerable influence on "**attribution theory**" which is concerned with **how individuals use information to form impressions** of dispositions, intentions, and abilities (Jones & Davis, 1965; Kelley, 1967 ; Weiner, 1974). Of particular relevance to cognitive theory is Weiner's "**attribution cube**". According to Weiner, success on a task can be attributed to internal factors (ability or effort) and external factors (task difficulty or luck). Furthermore, these attributions refer to whether the cause is stable (ability or task difficulty) and unstable (effort or luck). (See Figure 1)

| | | |
|---------------------------|----------|-----------------|
| Weiner's attribution cube | | |
| | Internal | External |
| Stable | Ability | Task Difficulty |
| Unstable | Effort | Luck |

Weiner's attribution model had considerable influence on the study of motivation and the perception of motivation. Recently, Weiner (1995) has extended his work to identify how concepts of personal responsibility are related to the attribution process.

Weiner's work was of considerable importance in the development of **Seligman's cognitive model of depression (*Learned Helplessness*)**. Seligman's (1975) earlier model of depression proposed that depression is a consequence of the individual's perception that behavior and outcomes are unrelated (non-contingent): that is, no matter how hard I work, it will have no effect on rewards or punishments. With the perception of non-contingency, the individual shows decreased behavior, motivation and ability to learn (all signs of depression). As elegant, simple and research-based as this model was, it soon became apparent that the model needed significant modification.

First, studies by **Carol Dweck** (Dweck & Goetz, 1978) on helplessness in children demonstrated that children who often gave up when they failed would verbalize attributions such as "I must not be good at this" and "These puzzles are

too hard for me" (both *stable attributions for failure*). Consequently, if they thought that their failure was due to something unchangeable, it made sense to give up. In one study, Dweck attempted to modify the explanations that children gave themselves for failure. One group was given 100% success experiences on puzzles, whereas another group was given experiences of occasionally failing. However, when they failed the experimenter would say, "You didn't try hard enough" (an internal, unstable attribution). Both groups were subsequently given success followed by failure tests. The attribution-training group actually improved following failure, whereas the reward group showed substantial decrements in performance.

A second question that the earlier helplessness model could not handle is why individuals confronting non-contingency would become self-critical. It might make sense that they would decrease their performance, but the model did not adequately explain changes in self-criticism (or individual differences in self-criticism).

Consequently, Seligman and his colleagues turned to Weiner's attribution cube to develop a cognitive model of depression (a model which, I believe, is consistent with Beck's cognitive model). According to the *reformulated model*, depression is a consequence of the belief that failure is due to a stable and internal factor (lack of ability) that is generalized beyond the immediate task for behavior which is viewed by the individual as important (Abramson, Seligman, & Teasdale, 1978). Since the publication of the reformulated model of depression, Abramson and her colleagues have made significant advances in developing a "hopelessness" model of depression based on attribution theory. These developments in clinical psychology were clearly derivative of the important advances in cognitive social psychology, reflecting how cognitive therapy then, as now, was influenced by academic research.

Beck's initial discoveries on depression

Aaron T. Beck, the founder of cognitive therapy, was trained in a traditional medical model of psychoanalysis. Educated at Yale Medical School and trained in the psychoanalytic institute in Philadelphia, Beck was interested in testing the Freudian view that depression was due to anger turned inward. Beck hypothesized that the dreams of depressed individuals would be replete with themes of anger and retaliation, since their ego defenses defending against anger would be compromised during sleep. Contrary to his expectations, Beck found that the dreams of depressed patients were characterized by themes of loss, emptiness and failure, much as their conscious reports during therapy sessions. Beck decided to examine the conscious, spontaneous verbalizations of patients during psychoanalysis for these themes of loss and failure, noting that depression seemed to be characterized by a negative bias in viewing reality. He referred to this bias as the *negative triad*--that is, a negative view of self, experience and the future. Thus, depressed patients believed that they were failures, that experience was without reward and that the future looked bleak. Further, Beck noted that during sessions, patients would often verbalize their negativity with specific *cognitive distortions* which he labeled *automatic thoughts*. They were labeled "automatic thoughts" because they were conscious reports that came

spontaneously and seemed plausible and true to the patient. These automatic thoughts were the basis of the depressive style of thinking which, for Beck, became the major focus of inquiry and change. Therapy, in this new model, would focus on modifying the automatic thoughts and testing them against reality. Consequently, his model moved from the emphasis on unconscious conflict and hydraulic energies to a model of rational and empirical testing.

Beck's model, which we will discuss in greater detail in the next chapter, was being developed during the 1960's and 1970's (and continues to develop today). During this time there were parallel developments in "structural psychology" (Piaget, cognitive social psychology, Kelly's psychology of personal constructs). However, the early years for Beck were years in which he moved against the mainstream of psychoanalytic thinking. Much to his credit, he did not abandon the validity of his early observations on depression and continued forward in the 1970's with important books on a cognitive model of psychopathology.

The current context

Although cognitive therapy was initially a model of depression, it has enjoyed considerable success during the past decade for a variety of other disorders. There are now effective cognitive-behavioral models for treating panic disorder (Beck, Emery, & Greenberg, 1986; Clark, in press), generalized anxiety (Beck et al, 1985), social phobia (Hope, 1995), dysthymia (Mercier, 1993), childhood depression, anger (Novaco, 1970), marital conflict (Baucom & Epstein, 1990), substance abuse (Beck et al., 1994;), schizophrenia (Alford, in press), bipolar disorder, (Leahy & beck, 1988), borderline personality (Layden, 1993) and a variety of other personality disorders (Beck, Freeman et al, 1990).

The current context of clinical practice in the United States appears to be moving toward at least an "eclecticism" in which most therapists incorporate some cognitive-behavioral principles in their work (Alford & Beck, in press; Alford & Norcross, 1991). In the remainder of this book I shall describe the cognitive therapy model and how it is applied to three areas---depression, anxiety and marital conflict. The reader is invited to read more detailed treatment manuals and books on any and all of these and other disorders that are treated with cognitive therapy. In addition, case studies of a variety of disorders using cognitive therapy may be found in the accompanying volume, *Case Studies in Cognitive-Behavioral Therapy*, edited by the author.