Maladaptive Cognitive Structures in Depression



Maria Kovacs Aaron T. Beck

Essential Papers on Depression

Maladaptive Cognitive Structures in Depression

Maria Kovacs and Aaron T.

Beck

e-Book 2018 International Psychotherapy Institute

From Essential Papers on Depression edited by James C. Coyne

All Rights Reserved

Created in the United States of America

Copyright © 1985 by James C. Coyne

Table of Contents

THE COGNITIVE VIEW OF BEHAVIOR AND PSYCHOPATHOLOGY

THE COGNITIVE VIEW OF DEPRESSION

DEPRESSIVE COGNITIONS: CONTENT AND PROCESS

DEPRESSOGENIC PREMISES AND SCHEMATA

CHARACTERISTICS AND DEVELOPMENT OF DEPRESSOGENIC

SCHEMATA

CLINICAL MODIFICATION OF MALADAPTIVE COGNITIVE
SCHEMATA

CASE REPORT

EFFICACY OF COGNITIVE THERAPY

COMMENT

REFERENCES

Notes

Maladaptive Cognitive Structures in Depression

Maria Kovacs and Aaron T. Beck

(or melancholia) has Depression been recognized for thousands of years. The Book of Job, for example, illustrates the profound mood alteration, loss of interest, social withdrawal, selfdeprecation, self-blame, and sleep disturbance that characterize the depressions. A 3,900-yearold Egyptian manuscript provides a distressingly accurate picture of the sufferer's pessimism, his loss of faith in others, his inability to carry out the evervdav tasks of life, and his serious of suicide.[1] Such consideration historical descriptions are congruent with current accounts of the phenomenology of clinical depressions. [2]

In spite of considerable agreement of the

phenomenology of the clinical syndrome of depression, no completely satisfactory explanation has vet been offered to account for the mechanisms underlying the wide variations in symptomatology and course. The number of competing viewpoints and nosological systems [3] clearly mirrors the incomplete knowledge of etiological and contributory factors in the depressive disorders. Nevertheless, as Akiskal and McKinney's (1973) "pluralistic" view of depression suggests, most explanatory models, including psychological and biological models, provide a unique perspective that can contribute to a fuller understanding of these clinical syndromes.

In this paper we will present the cognitive approach to the description and treatment of depression. The cognitive approach focuses on the psychological and behavioral aspects of the depressive syndrome and highlights typical

cognitive distortions that occur in all of the nosological categories of depression. [4]

THE COGNITIVE VIEW OF BEHAVIOR AND PSYCHOPATHOLOGY

The cognitive view of behavior assigns primary importance to the self-evident fact that people think Ĭt assumes that the and nature thinking characteristics of and resultant conclusions determine what people feel and do and how they act and react. This view of behavior and psychopathology has a long history that bridges the disciplines of clinical psychiatry, clinical and academic psychology, and philosophy ^[5] The increasing emphasis on the role of cognition in behavior has been termed the "cognitive revolution". [6]

"Cognition" is a broad term that refers to both the content of thought and the processes involved in thinking. [7] Ways of perceiving and processing material, the mechanisms and content of memory and recall, and problem-solving attitudes and strategies are all aspects of cognition. [8] In short, cognition encompasses the processes of knowing, as well as the products of knowing. [9] Many of the complex processes subsumed under the term "cognition" are still poorly understood. In the absence of a comprehensive theory of memory that would help to explain the consistencies in individual behavior over time, the existence of "cognitive structures" or "schemata" has been postulated. [10]

Cognitive structures are relatively enduring characteristics of a person's cognitive organization. They are organized representations of prior experience; different aspects of experience are organized through different schemata. The concept of cognitive structures

or schemata can be used to explain why people react differently to similar or identical situations, while a particular individual may show the same type of response to apparently dissimilar events.

A schema allows a person to screen, code, and assess the full range of internal or external stimuli and to decide on a subsequent course of action. When a person is confronted with a particular situation, it is assumed that a schema is activated that is relevant to that stimulus configuration. [12] The different schemata in the cognitive organization may vary in their specificity and detail and the range of stimuli or patterns to which they apply. For example, a person may have a complex, multifaceted, and well-developed cognitive schema to deal with problems in mathematics, but a simple, narrow schema to deal with sexual encounters. In our use of the term. schemata encompass systems for classifying stimuli that range from simple perceptual configurations to complex stepwise reasoning processes.

The cognitive approach to behavior and psychopathology is different in many ways from previous psychological perspectives. Previous models have used motivational or adaptational concepts that are so elaborate and remote from clinically observable phenomena as to preclude empirical validation. [13] As we shall demonstrate, hypotheses derived from the cognitive approach to depression are readily testable, and many of them have been supported by empirical evidence.

Contrary to common belief among clinicians, the cognitive approach to depression and psychopathology does *not* assume that a well-adjusted individual is one who thinks logically and solves problems rationally. [14] What is assumed is

that to understand and correct maladaptive behavior, the idiosyncratic meaning people ascribe to their experiences must be uncovered. Within this framework, we do not try to alter or remove all idiosyncratic evaluations but only those that are dysfunctional or maladaptive. The evaluations or idiosyncratic views that are pathogenic of depression are generally associated with negative value judgements. For example, a woman's belief that she is unattractive may not be consensually validated, and thus it may reflect an idiosyncratic cognition. Nonetheless, if the cognition did not interfere with her emotional well-being and general functioning, it would not be considered maladaptive. On the other hand, if the woman attached a negative value to her opinion of her appearance and considered appearance to be an important aspect of her desirability as a person, she would be likely to

progress to inaccurate *and* dysfunctional conclusions, such as "Nobody could love me because I am ugly" or "I might as well give up in life since I don't have much going for me."

THE COGNITIVE VIEW OF DEPRESSION

Beck^[15] has provided the most comprehensive exposition of the cognitive view of depression. In contradistinction to current emphases that mood alteration is central in depressive syndromes,^[16] the cognitive approach focuses on self-castigation, exaggeration of external problems, and hopelessness as the most salient symptoms.

According to Beck (1967, 1976), the depressed person's thinking and preoccupation represent erroneous and exaggerated ways of viewing oneself and events. The depressed person is overly sensitive to obstacles to goal-directed activity, interprets trivial impediments as substantial,

reads disparagement into innocuous statements by others, and, at the same time, devalues himself or herself. The characteristic depressive preoccupations are stereotypical and are evident in self-report, fantasy, and dream content. Moreover, the cognitions are frequently irrelevant and inappropriate to the reality of the situation and mirror a consistent negative bias against oneself. [17]

Profuse negative cognitions inevitably lead to dysphoria, reduced desire to provide for one's pleasure or welfare, passivity, and ultimately to giving up. The specific cognitive content is "chained" to a particular affect. Thus concern about an anticipated threat is connected with feelings of anxiety; thoughts about being unloved and abandoned are associated with depressive feelings. Depressive cognitive content generally relates to notions of loss or perceived subtractions

from what Beck (1971) refers to as one's "personal domain." The personal domain includes the individual, significant others, valued objects and attributes, and ideals, principles, and goals held to be important. Thus if professional accomplishment is a central and cherished goal, a temporary setback may be magnified out of proportion and seen as having devastating implications about one's abilities and one's for future achievement. prospects consequence of such an overgeneralized negative interpretation, the depressed person is likely to experience increased dysphoria, dejection, and discouragement.

In the clinical depressions, the patient's perceptions, interpretations, and evaluations are not consensually validated, and the pervasive, negative bias against oneself remains relatively immune to conventional corrective feedback. This

negative view of oneself and the future also militates against the reality testing of one's ideas, active exploration of problem solving alternatives, and appropriate use of other people as resources.

Beck's approach to depression and its derivative treatment, cognitive therapy, [19] is targeted on selected aspects of the patient's thinking and behavior. In a recent review [20] we summarized the content and process peculiarities of depressive cognitions and their relationship to affect.

DEPRESSIVE COGNITIONS: CONTENT AND PROCESS

The content of depressive cognitions is predominantly negative in tone and self-referential in direction; the individual is preoccupied with self-derogatory and self-blaming thoughts. Moreover, the depressed patient projects into the future his or her notions of real

or imagined loss. He or she becomes pessimistic and hopeless and believes that the current discomfort is unending and unalterable. Beck (1967) has referred to the thematic content of depressive cognitions as the "negative cognitive triad," a negative, demeaning view of oneself, the world, and the future. A number of empirical investigations support the common clinical observation that depression is associated with negative, self-referential cognitive content. [21]

Much of our knowledge about ourselves and the world is meaningful only when considered in a time dimension. In addition, most of our actions implicitly reflect future goal-orientation. [22] It has long been noted that a disturbance in time orientation, such as a constricted time perspective, is indicative of psychopathology. [23] In the clinical interview the depressed patient's highly constricted time perspective is evident in

statements that he or she has "no future" or "nothing to look forward to." In other words, in depression the future loses its meaning as a portent for prospective solutions; [24] in the patient's eyes the future becomes a singular state of unending pain and despair rather than a multiplicity of experiences and opportunities.

A number of studies have documented the fact that distorted construction of temporal experience is indeed one of the characteristics of depressive cognitions. Compared with both nondepressed "normal" people and nondepressed psychiatric patients such as schizophrenic and manic individuals, depressed patients manifest specific distortions of temporal schemata. [25]

Recall, an additional aspect of cognitive functioning, is also characteristically skewed in depression. Depressed individuals selectively

recall with material negative content or implication at the expense of neutral or positively toned material. In the clinical interview they usually paint the bleakest picture of their background; positive material can be elicited only by the most pointed and specific questioning. Lloyd and Lishman^[26] reported empirical data that depressive recall is biased toward negatively toned material; the extent of negative recall is related to the severity of the depression and to depression as a diagnosis. The characteristically biased recall was also documented by the work of Nelson and Craighead (1977), who showed that depressed subjects tend to remember more experimental punishment and less positive experimental reinforcement than nondepressed subjects do. Other studies 127 have indicated that depressed subjects underestimate the amount of positive experimental reinforcement they receive.

Our clinical observations of depressed patients also disclose that they have a strong tendency to assign negative global and personalized meanings to events. For example, one of our patients, who repeatedly called friends and sought advice when he was in distress, wrote in his diary, "I am despicable for asking opinions." He believed that his multiple phone calls to friends reflected his inability to handle his own problems. Moreover, he was convinced that this alleged weakness detracted from his "worth" as a person and actually made others think unfavorably of him.

The depressed patient is especially prone to disqualify prior positive experiences and to personalize experiences of failure. The latter are often interpreted as indicative of his or her blameworthiness. For example, a patient was not pleased when a short story she had written was accepted for publication because she attributed

the acceptance to sheer luck. However, she regarded a rejected article as proof of her incompetence and felt distraught. A similar phenomenon was reported by Stuart (1962), who found that depressive tendencies correlate with evaluative rather than classificatory associations, i.e., associating the word "apple" with "sweet" (evaluation) rather than "fruit" (classification). Empirical work [28] has documented the fact that depressed subjects personalize failure; they ascribe failure in an experimental task to lack of ability, while they do not attribute success to internal factors.

The depressed patient's characteristic stereotypical conclusions and assessments reflect a combination of negative cognitive themes and certain systematic errors of thinking. [29] A characteristic error in depressive thinking is drawing conclusions in the absence of or contrary

to evidence. This process of arbitrary inference is illustrated by the following cognition: "John didn't call tonight....He probably doesn't want to see me anymore." When depressed patients are confronted with a negative event or attribute they typically magnify its importance; however, the implications of a pleasant event or positive attribute are minimized. For instance, a patient evaluated a slight increase in her dysphoria to mean that she was "deteriorating," while she viewed a well-done task as quite insignificant. In clinical work we typically find that the patient selectively abstracts isolated elements of a situation that are most consistent with his or her negative and pessimistic world view and ignores other salient cues. A depressed patient decided that her boss's failure to say hello was ominous; she completely ignored the fact that he was under considerable pressure and preoccupied. As Beck and Shaw (1977) have noted, the depressed patient's invariant method of information processing results in overgeneralization and the ignoring of fine discriminations.

Hammen and Krantz (1976), Weintraub and associates (1974), and Beck (1967) have reported empirical data that document the presence and preponderance of erroneous cognitive processes in depressed college students and depressed patients. The depressive tendency to magnify negative experiences is reflected in depressed subjects' hypersensitivity to experimentally manipulated failure, compared with the reactions of nondepressed subjects. Loeb and associates (1971) and Hammen and Krantz (1976) have documented the fact that such manipulations lead to increased dysphoria and pessimism, decreased levels of aspiration, and less positive predictions of one's performance on subsequent tasks.

DEPRESSOGENIC PREMISES AND SCHEMATA

It is clear that a concept is needed to integrate the various cognitive distortions that characterize depressed thought. This integrative concept should also help explain why, given certain internal or external events, some people develop a clinical depression and others do not. Two concepts, namely, "premises" and "schemata," nicely fulfill the integrative function we seek.

Premises are implicit or explicit statements of fact that form the basis or cornerstone of an argument, conclusion, evaluation, or problemsolving strategy. Wason and Johnson-Laird (1972) have suggested that everyday problem solving is best understood as a function of "emotional decisions to accept or reject premises." We have already noted the patient who evaluated the missed phone call from her boyfriend as a rejection and pointed out her arbitrary inference

and personalized, negatively referential meaning. From a clinical viewpoint, her conclusion that her boyfriend did not want to see her any more was erroneous because it was not based on any evidence. The conclusion was also maladaptive because it led to increased dysphoria, lack of activity for the duration of the evening, and continued rumination about her allegedly poor interpersonal skills. Nevertheless. the interpretation was a natural function of the patient's basic premise, namely, "If I am not important to everyone, I can't go on living." This patient defined being "important to others" as other people attending to her, worrying about her, and always following through with promises and commitments.

We use the terms "silent assumptions," "formulas," and "basic equations" to refer to the premises that are crucial in depression. While

depressive premises can be described in terms of common themes or leitmotifs, each depressed patient has a distinctly personal set of rules or formulas that he or she uses to integrate experiences. These formulas are generally unarticulated. Nevertheless, their content can be inferred vis-a-vis the patient's goals, self-evaluations, and the meanings he or she assigns to the raw data of his or her experiences. In addition, the depressed patient's stereotypical and rigid notions and directives are often the "surface" manifestations of an underlying depressogenic premise.

For example, depressed patients tend to make excessive use of the directives "should" and "must." Compared with the "shoulds" of nonsymptomatic people, the depressed patients' directives are generally unreasonable, rigid, and unyielding; the goal, which reflects the depressive

premise, is usually unattainable. One of our patients was preoccupied with how she "should" and "must" study every day, contact her family regularly, be undemanding of others, and always present a neat, organized appearance. The content-specific use of "should" profuse. eventually revealed her underlying premise: "I have to be perfect at everything." Another patient repeatedly and stereotypically concerned herself with themes that reflected her dependence on other people; one of her basic premises concerning herself was "I need the continuous presence of others for survival." Depressed patients also frequently use premises such as "I should be able to endure any hardship with grace," "I should always be generous, dignified, and courageous," "I should be smart and capable all the time."

"Either-or" assumptions that treat two

separate premises as having equivalent meanings are also common among depressed individuals, for example, "Either I am one hundred percent successful in everything or I am a failure," "If I am not a success, life has no meaning," "If I am not loved by everyone, I cannot go on living." In collaboration with us. Weissman constructed the Dysfunctional Attitude Scale (DAS), which contains statements reflecting a variety of both adaptive and maladaptive attitudes and beliefs. The maladaptive statements had been found to be characteristic of depressed patients in therapy but generally uncharacteristic of nondepressed patients. A high DAS score indicates endorsement a large number of items that reflect of depressogenic attitudes. In a pilot study with 35 depressed psychiatric outpatients, Weissman found a correlation coefficient of .58 between the DAS score and level of depression. Weissman is

currently analyzing the reliability and validity of the DAS using large samples of college students and psychiatric patients.

Silent assumptions or premises, bits of information and conclusions provide the content of a cognitive schema. A schema is a relatively enduring structure that functions like a template; it actively screens, codes, categorizes, and evaluates information. By definition, it also represents some relevant prior experience (Neisser, 1967).

CHARACTERISTICS AND DEVELOPMENT OF DEPRESSOGENIC SCHEMATA

Although we cannot offer proof that certain schemata predispose to depression, clinical experience indicates an abundance of typical cognitions that help to maintain the patient's depression. The preponderant characteristic

cognitions presumably reflect the operation of distinct cognitive schemata. We postulate that the schemata which are active in depression are previously latent cognitive structures. They are reactivated when the patient is confronted with certain internal or external stimuli. Once reactivated, the depressogenic schemata gradually replace more appropriate ways of organizing and evaluating information.

As the depressogenic schemata become more active in the patient's cognitive organization, they can be evoked by a wide range of stimuli through the process of stimulus generalization (Beck, 1967). In the initial stages of depression the patient tends to ruminate over a few characteristic ideas, such as "I'm a complete failure" or "My depression is a punishment for my sins." As the depression progresses, the patient gradually loses control over his or her thinking; even when he or

she tries to focus on other material, the depressive cognitions intrude and occupy a central place in his or her thoughts. In the more severe depressions, the depressive schemata and associated ideas gradually become so potent that the patient cannot even consider that his or her ideas or interpretations may be erroneous. Such loss of reasonable thinking and reality testing may be best understood in terms of the "hyperactivity" of the depressive schemata and their consequent interference with the operation of other cognitive structures (Beck, 1967). From a clinical point of view, the hyperactive, idiosyncratic schemata cognitions that are exceptionally produce compelling, vivid, and plausible to the patient. Their intensity noticeably affects the patient's interpretations and information processing.

In our clinical experience, the schemata that predispose to and become overly active in a

depressive episode have several characteristics. First, they relate to and organize those aspects of the person's experience that concern self-evaluation and relationships with other people. Specifically, depressogenic schemata code and organize information about life situations or events that the individual perceives as real or potential subtractions from his personal domain. Since people's perceptions are idiosyncratic and variable, it is not possible to foresee the specific stimulus conditions that can reactivate a depressogenic schema.

Depressogenic schemata have a number of additional characteristics that may help explain that, while everyone has schemata that relate to self-assessment and interpersonal relationships, not everyone gets depressed. One defining characteristic is inflexible or absolute rules of conduct and evaluation that become manifest in

the patient's language as rigid quantifiers (e.g., "all," "always," "never"), categorical imperatives ("must," "ought," "have to"), and preemptive class assignments ("nothing but").

Although one of our patients, a Ph.D. in history, was still capable of employing appropriate constructs in most of her everyday business, a eroding marriage gradually and recent interpersonal rejection reactivated her phenomenologically more primitive cognitive schema that related to interpersonal disapproval and loss. The inflexibility of her depressogenic schema is evident in the following cognitions: "I must make my life meaningful every day or else my life is worthless. ... To make my life worthwhile, I have to make every hour count. I have to be productive and please everyone around me. ... If people leave me or disapprove of me, I haven't pleased them; therefore I'm nothing but a

failure—a parasite, a useless creature" (italics added). In this set of cognitions, the idiosyncratic evaluation is clearly maladaptive because of the final, devastating value judgment and the bizarre overgeneralization. The rigidity and absoluteness built into this patient's schema inevitably led to the exaggerated, overgeneralized conclusions. In the beginning of her treatment this patient ruminated primarily about her worthlessness and did not report the sequence of cognitions noted above.

During their development and maturation people develop a large number of schemata that organize different aspects of experience. The schemata ostensibly undergo modification as a result of living, learning, and experiencing. The formal characteristics of most depressogenic schemata, including the psychologically simplistic and "childish" content of the premises, the rigid

apparent and their lack directives. differentiation, all combine to create impression that we are dealing with relatively stable, developmentally early constructions. In other words, it appears that most of these schemata contain erroneous conclusions which stem from the patient's earlier years and which have remained fairly constant through years of living. The functional utility of these schemata apparently has not been systematically tested against the changing reality of the maturing Their content and their person. process characteristics have not been modified to parallel the increasing flexibility and complexity of other (nondepressogenic) schemata.

Depressogenic schemata are specific to and most likely to be activated by conditions that resemble the circumstances under which they developed. However, eventually their range probably extends to stimulus conditions that are only marginally similar to the original one. For example, a schema that originally developed as a consequence of the death of a close relative during the patient's childhood may be readily reactivated by any death the patient confronts during adulthood. The schema may also be reactivated by conditions that the adult *interprets* as constituting irrevocable loss, such as the disruption of an interpersonal relationship.

In repeated episodes of depression the same negative cognitive schemata can be discerned in the profusion of distorted cognitions and in blatant expressions of regret over unattainable goals or expectations. When the patient is confronted with a perceived anticipated rejection, failure, or loss, the reactivation of the depressogenic schemata gradually leads to the other classic symptoms of depression (Beck,

1967). Insofar as these schemata appear to be long-term psychological templates associated with fairly stereotypical attitudinal and behavioral responses under certain stimulus conditions, they may well constitute a cognitive dimension of the depression-prone individual's personality. The central assumption of the cognitive approach to depression, namely, that cognition can determine affect, is supported by a growing body of literature. The literature documents that even in laboratory settings, mood and behavior changes can be induced through cognitive manipulations.

Patients' self-reports appear to support the clinical observation that depressogenic schemata are probably long-term, characteristic attitudes and problem-solving approaches. More to the point is a recent study by Hauri (1976), supporting earlier work by Beck (1967), both of

which document that the content of depressed patients' dreams is consistent with their waking cognitions, i.e., the dreams are dominated by themes of being rejected, thwarted, abandoned, ill, punished, undesirable, and ugly. Using a dream laboratory to collect dreams from normal subjects and remitted depressed patients, Hauri also found that, compared with the dreams of control subjects, even the dreams of *remitted* patients showed a preponderance of negative themes. Moreover, remitted depressed patients dreamed more about the past than normal controls did, which reflects the depressive tendency for selective focus on past events.

Thus certain cognitive processes seem chronically atypical among depressed patients and may represent a stable characteristic of their personality. This hypothesis is partly supported by data on the relative stability of cognitive factors

compared with affective factors. These data were reported by Weintraub and associates (1974), who investigated cognition and affect over a two-month period. Cognitive content that was assessed through multiple-choice responses to a story completion task was found to be significantly intercorrelated over five testings. On the other hand, affect (assessed through the Multiple Affect Adjective Check List) was considerably less consistent over time. Furthermore, changes in cognitive content appeared to precede changes in affect.

What factors and situations potentiate the development of depressogenic schemata? It has been suggested that the loss of a parent during one's childhood may have etiological significance (Beck, 1967). A set of premises may evolve to guide the person's eventual interpretation of losses as irreversible and traumatic. Data which

show that depressed patients more often experienced childhood bereavement than comparison groups did may lend some credence to this assumption (Beck, 1967). However, since these findings describe only a small number of all depressed patients, it is obvious that other predisposing factors need to be explored.

Other factors important in the development of depressogenic schemata may include a parent whose own belief system revolves around inadequacy or parent whose personal a constructive system encompasses inflexible and rigid rules of conduct. Thus a young person may learn and develop some maladaptive schemata on the basis of modeling and social identification. Such social processes can be reinforced by the parent or parenting one. For example, in family therapy sessions it is not uncommon to observe a parent who derogates herself or himself for selfperceived inadequacies and later expresses love for the child by saying, "He is just like me."

As already noted, according to our clinical experience the negative schemata that are dramatically operative in the depressive episode seem to have been refractory to ordinary change and reality testing. Thus what makes these schemata remarkable is probably not their uniqueness in the depression-prone person's development, but the individual's lack of opportunity or lack of experience in submitting them to examination.

Since depressogenic cognitive structures generally relate to interpersonal conduct and evaluation, a number of factors can militate against reality-testing them. A deficit in the child's or young person's social skills or negative interactions with peers or siblings may militate

against social testing and reassessment of early interpretations. A young person's self-construction of "differentness," derived from an actual or imagined physical defect, childhood obesity, natural shyness, or the like, may also hinder the testing or modification of socially and interpersonally oriented schemata.

CLINICAL MODIFICATION OF MALADAPTIVE COGNITIVE SCHEMATA

Although cognitive structures appear to have some of the characteristics of personality traits, they *can* be modified. In fact, since normal maturation encompasses increasing knowledge and awareness of oneself and time milieu, the modification of cognitive schemata and modulation of behavior are probably the norm rather than the exception.

We have effectively used short-term cognitive

therapy[31] to treat outpatients with both minor and major (nonpsychotic) unipolar depression. Cognitive therapy is structured and directive, yet requires the patient's active collaboration. It encompasses the use of both verbal and behavioral techniques to alleviate depressive symptoms. In the initial treatment sessions we often employ behavioral techniques such as listkeeping, planning productive activities, and scheduling potentially enjoyable events. These techniques help to "break into" the depressive circle. Moreover, they not only focus the patient's attention on relevant, productive activity and away from his or her depressive preoccupations, but also provide him with experiences of accomplishment. The therapist can also use behavioral assignments to challenge the validity of the depressed patient's belief that he cannot do anything at all or cannot help himself to feel

better.

The patient and therapist then work together to pinpoint the content and process characteristics of the patient's distorted cognitions, question their "sense," and reality-test their appropriateness in the patient's life. Later, the treatment focuses on the identification and modification of the dysfunctional beliefs that derive from the patient's depressogenic schemata. From the patient's habitual thinking stereotypical errors. preoccupations, or repeated allusions to what makes other people happy or miserable, the therapist gradually infers the patient's "silent assumptions."

The following case briefly illustrates the chain of negative cognitions, assumptions, and premises uncovered in the cognitive therapy of a middle-aged married scientist.

CASE REPORT

The patient, Mr. D., sought treatment because of a severe depression, confirmed by high scores on both self and clinical rating scales of depression. Diagnostically, he satisfied the criteria for primary depression of the major unipolar (nonpsychotic) type. Mr. D. had a 10-year history of chronic depression with periodic exacerbations. His current depressive episode coincided with a promotion and was reinforced by long-standing marital problems.

In the first phase of treatment the patient learned to monitor and record his negative automatic thoughts associated with dysphoria. The following three self-observations were typical: "I'm unable to respond to my wife emotionally," "I'm alienated from my family," "I'm responsible for my wife's depression." In the next phase of treatment these kinds of negative

thoughts were grouped in order to abstract general cognitive themes. As the cognitions cited above reflect, one theme concerned Mr. D.'s selfperceived inadequacy in the roles of husband and father. As therapy progressed the therapist sought to elicit the *meaning* of Mr. D.'s presumed inadequate performance in the family. According to the patient, the above observations indicated that he was "emotionally empty" and a miserable person who had "nothing to give," The theme of interpersonal self-derogation was subsequently also abstracted from his distorted cognitive responses to his relationships with other people in settings. interpersonally various To be incompetent meant that he was "unworthy." Underlying all of the patient's depressive cognitions was the basic formula that if he did not live up to his own idiosyncratic expectations of perfection (which he unquestioningly believed

everyone shared), other people "would not approve" of him.

After considerable questioning and trial-anderror "fitting," the therapist and patient were able to derive a meaningful chain of assumptions and premises (see figure 1).

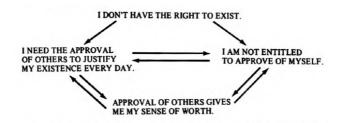


Figure 1. Model of the Patient's Assumptions and Premises

The patient's underlying belief that he did not have "the right to exist" was apparently related to his discovery, about age 10, that he was an unplanned child. Mr. D.'s highly negative interpretation of this information and its concomitant affective impact was conveyed by the

fact that even at age 55, he was able to state with conviction, "I *am* an unwanted baby." This basic belief seemed to underlie Mr. D.'s other assumptions, e.g., "I need the approval of others to justify my existence."

The assumptions relevant to interpersonal disapproval could also be used to explain the preponderance of negative depressive cognitions in response to different stimulus conditions. For example, at work Mr. D. was preoccupied with the recurrent negative cognitions "I have no opinion on anything," "My mind is sluggish ... I can't speak up at meetings." The possibility of being called upon at a meeting activated Mr. D.'s interpersonal schema concerned with disapproval, which led, in turn, to the cognition that if he did speak up, he would make a fool of himself. Subsequent to the uncovering of Mr. D.'s depressogenic schemata, treatment focused on questioning their relevance and plausibility and having Mr. D. test out new, alternative behaviors and interpretations.

By testing and modifying the dysfunctional premises, the patient was helped to process, in a more realistic way, information regarding other people's reactions to him. One technique that demonstrated the inappropriateness of his system of assumptions consisted of Mr. D.'s adopting behaviors that were contrary to his dysfunctional beliefs, for example, behaving as if the assumption that he needed the approval of other people were untrue. The consequences of such "new" behaviors led to an increase in more reality-oriented adaptive cognitions.

EFFICACY OF COGNITIVE THERAPY

A recent empirical study by Rush and associates (1977) assessed the efficacy of cognitive therapy, compared with

pharmacotherapy, in the treatment of depressed Forty-one unipolar outpatients. depressed outpatients randomly assigned to either cognitive therapy (N = 19) or imipramine treatment (N =22) were seen over a period of 12 weeks. As a group, the patients had a long history of repeated episodes of depression and multiple past attempts at treatment. Analysis of self-ratings and clinical ratings of depression revealed that while both treatments were highly effective in decreasing depressive symptoms, the group receiving cognitive therapy showed statistically greater clinical improvement. These findings were essentially replicated at 3- and 6-month follow-up. Moreover, significantly more pharmacotherapy than cognitive therapy patients dropped out of treatment. Among the patients who completed treatment, a significantly greater number of pharmacotherapy patients reentered treatment of depression in the follow-up phase.

COMMENT

While at the present time we have no definitive data on exactly *how* cognitive therapy works, the relatively low posttreatment relapse rate may well indicate that there has been some modification of the patient's depressogenic cognitive schemata. Although the cognitive approach seems to "fit" the observable clinical phenomena, a definitive test of its theoretical rigor will have to await further analyses and detailed inquiry.

We wish to acknowledge *American Journal of Psychiatry* for Maria Kovacs and Aaron T. Beck, "Maladaptive Cognitive Structures in Depression," Vol. 135, pp. 525-533, 1978.

REFERENCES

Adler A: *The Science of Living*. Edited by Ansbacher HL. Garden City, NY, Doubleday, 1969

Akiskal HS, McKinney WT: Depressive disorders: toward a unified hypothesis. *Science* 182:20-29, 1973

Akiskal HS, McKinney WT: Overview of recent research in

- depression. Arch Gen Psychiatry 32:285-305, 1975
- American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders,* 2nd ed. Washington, DC,
 APA, 1968
- Andreasen NJC, Pfohl B: Linguistic analysis of speech in affective disorders. *Arch Gen Psychiatry* 33:1361-1367, 1976
- Beck AT: Thinking and depression: I. Idiosyncratic content and cognitive distortions. *Arch Gen Psychiatry* 9:324-333, 1963
- Beck AT: *Depression: Clinical, Experimental, and Theoretical Aspects.* New York, Harper & Row, 1967
- Beck AT: Cognition, affect, and psychopathology. *Arch Gen Psychiatry* 24:495-500, 1971
- Beck AT: *Cognitive Therapy and the Emotional Disorders*. New York, International Universities Press, 1976
- Beck AT, Shaw BF: Cognitive approaches to depression, in *Handbook of Rational Emotive Theory and Practice*. Edited by Ellis A. Grieger R. New York, Springer, 1977
- Becker J: *Depression: Theory and Research*. New York, John Wiley & Sons, 1974
- Broadbent DE: Cognitive psychology: introduction. *Br Med Bull* 27:191-194,1971
- Coleman RE: Manipulation of self-esteem as a determinant of mood of elated and depressed women. *J Abnorm Psychol* 84:693-700, 1975

- Craik KJW: *The Nature of Explanation*. Cambridge, England, Cambridge University Press, 1952
- Dember WN: Motivation and the cognitive revolution. *Am Psychol* 29:161-168, 1974
- DeMonbreun BG, Craighead WE: Distortion of perception and recall of positive and neutral feedback in depression. *Cognitive Therapy and Research* 1:311–329,1977
- Dilling CA. Rabin Al: Temporal experience in depressive states and schizophrenia. *J Consult Psychol* 31:604-608, 1967
- Falmagne RJ (ed). *Reasoning: Representation and Process.*. Hillsdale, NJ, Erlbaum, 1975, pp 55-78
- Grinker RR, Miller J, Sabshin M, et al: *The Phenomena of Depressions*. New York, Hoeber, 1961
- Hammen CL, Krantz S: Effect of success and failure on depressive cognitions. *J Abnorm Psychol* 85:577-586, 1976
- Hauri P: Dreams in patients remitted from reactive depression. *J Abnorm Psychol* 85:1-10, 1976
- Inhelder B. Piaget J: *The Early Growth of Logic in the Child*. New York, Norton, 1969
- Johnson-Laird PN: Models of deduction, in *Reasoning: Representation and Process.* Edited by Falmagne RJ.
 Hillsdale, NJ, Erlbaum, 1975, pp 7-52
- Kelly GA: *The Psychology of Personal Constructs*. New York, Norton, 1955

- Klein DF: Endogenomorphic depression. *Arch Gen Psychiatry* 31:447-454, 1974
- Klein DC, Fencil-Morse E, Seligman MEP: Learned helplessness, depression, and the attribution of failure. *J Pers Soc Psychol* 33:508-516, 1976
- Klerman GL: Clinical research in depression. *Arch Gen Psychiatry* 24:305-319, 1971
- Kovacs M, Beck AT: Cognitive-affective process in depression, in *Emotions, Conflict, and Defense.* Edited by Izard CE. New York, Plenum (1977)
- Laxer RM: Self concept changes of depressive patients in general hospital treatment. *J Consult Psychol* 28:214-219, 1964
- Lishman WA: Selective factors in memory: part 2: affective disorder. *Psychol Med* 2:248-253, 1972
- Lloyd GG, Lishman WA: Effect of depression on the speed of recall of pleasant and unpleasant experiences. *Psychol Med* 5: 173-180, 1975
- Loeb A, Beck AT, Diggory J: Differential effects of success and failure on depressed and nondepressed patients. *J Nerv Ment Dis* 152:106-114, 1971
- Ludwig LD: Elation-depression and skill as determinants of desire for excitement. *J Pers* 43:1-22. 1975
- Mahoney MJ: Reflections on the cognitive-learning trend in psychotherapy. *Am Psychol* 32:5-13, 1977
- May R. Angel E, Ellenberger HF (eds): Existence. New York,

- Simon and Schuster, 1958
- Melges FT. Bowlby J: Types of hopelessness in psychopathological process. *Arch Gen Psychiatry* 20:690-699, 1969
- Mendels J: Concepts of Depression. New York, John Wiley & Sons. 1970
- Moore BS, Underwood B, Rosenhan DL: Affect and altruism. *Developmental Psychology* 8:99-104, 1973
- Natale M: Effects of induced elation-depression on speech in the initial interview. *J Consult Clin Psychol* 45:45-52, 1977
- Neisser U: *Cognitive Psychology*. New York, Appleton-Century-Crofts, 1967
- Nelson RE, Craighead WE: Selective recall of positive and negative feedback, self-control behaviors, and depression. *J Abnorm Psychol* 86:379-388, 1977
- Rey AC. Silber E, Savard RJ, et al: *Thinking and language in depression*. Presented at the 130th annual meeting of the American Psychiatric Association, Toronto, Ont, Canada, May 2-6, 1977
- Rizley RC: The perception of causality in depression: an attributional analysis of two cognitive theories of depression. New Haven, Yale University Department of Psychology, 1976 (doctoral dissertation)
- Rush AJ: The why's and how's of diagnosing the depressions. Biological Psychology Bulletin 4:47-62, 1975
- Rush AJ, Beck AT, Kovacs M, et al: Comparative efficacy of

- cognitive therapy and pharmacotherapy in the treatment of depressed outpatients. *Cognitive Therapy and Research* 1:17-37, 1977
- Secunda SK, Katz MM, Friedman RJ, et al: *The Depressive Disorders*. DHEW Publication 73-9157. Washington, DC, US Government Printing Office, 1973
- Stuart JL: Intercorrelations of depressive tendencies, time perspective, and cognitive style variables. Dissertation Abstracts International 23:696, 1962
- Thacker TW: A dispute over suicide, in *Documents from Old Testament Times*. Edited by Thomas DW. New York, Harper & Row, 1958, pp. 162-167
- Velten E: A laboratory task for induction of mood states. *Behavior Res Ther* 6:473-482, 1968
- Wason PC., Johnson-Laird PN: *Psychology of Reasoning*. Cambridge, Mass, Harvard University Press, 1972
- Weintraub M, Segal RM, Beck AT: An investigation of cognition and affect in the depressive experiences of normal men. *J Consult Clin Psychol* 42:911, 1974
- Wener AE, Rehm LP: Depressive affect: a test of behavioral hypotheses. *J Abnorm Psychol* 84:221-227, 1975
- Wing JK: The functional psychoses and neuroses. *Psychiatric Annals* 6:393-403, 1976

Notes

1 Thacker 1958

- <u>2</u> Beck, 1967; Becker, 1974; Grinker RR, Miller J, Sabshin M, et al: 1961; Mendels, 1970
- 3 Beck, 1967; Becker, 1974; Akiskal HS, McKinney WT:, 1973; Akiskal HS, McKinney WT:, 1975; Klein, 1974; Klerman, 1971; Rush, 1975; Secunda SK, Katz MM, Friedman RJ, et al:, 1973; Wing, 1976
- 4 Beck, 1967
- Beck, 1967; Adler, 1969; Kelly, 1955; Broadbent,1971; Neisser 1967; Falmagne, 1975; Wason PC., Johnson-Laird PN, 1972; Craik, 1952
- 6 Dember, 1974
- 7 Broadbent, 1971; Neisser, 1967
- 8 Neisser, 1967
- 9 Neisser, 1967; Mahoney, 1977
- 10 Wing, 1976; Kelly, 1955, Neisser, 1967; . Inhelder B. Piaget J, 1969; Johnson-Laird, 1975
- 11 Neisser, 1967; . Inhelder B. Piaget J, 1969
- 12 Beck, 1967; Kelly, 1955
- 13 Beck, 1967
- 14 Beck, 1967; Adler, 1969; Kelly, 1955
- 15 Beck, 1967; 1963; 1971; 1976; 1977
- 16 DSM-II, 1968

- 17 Beck, 1967;1963; 1971
- 18 Beck, 1971
- 19 Beck, 1967; 1976
- 20 Kovacs & Beck, 1977
- 21 Hammen CL, Krantz S:, 1976; Laxer, 1964; Melges FT. Bowlby J, 1969; Weintraub M, Segal RM, Beck AT, 1974
- 22 Adler, 1969; Neisser, 1967; Falmagne, 1975; May R. Angel E, Ellenberger HF, 1958
- 23 Adler, 1969; May R. Angel E, Ellenberger HF, 1958
- 24 Dilling CA. Rabin Al, 1967
- 25 Dilling CA. Rabin Al, 1967; Andreasen NJC, Pfohl B, 1976; Rey AC. Silber E, Savard RJ, 1977; Stuart, 1962
- **26** Lloyd GG, Lishman WA, 1975; Lishman, 1972
- 27 DeMonbreun BG, Craighead WE, 1977; Wener AE, Rehm LP, 1975
- 28 Rizley RC, 1976; Klein DC, Fencil-Morse E, Seligman MEP, 1976
- 29 Beck, 1967; 1976
- 30 Coleman, 1975; Ludwig, 1975; Moore BS, Underwood B, Rosenhan DL, 1973; Natale, 1977; Velten, 1968
- 31 Beck, 1967; 1976