Book Reviews

Perspectives on Depression

Masked Depression. STANLEY LESSE, Ed. Aronson, New York, 1974. xvi, 374 pp. $12.50.

The Psychology of Depression. Contemporary Theory and Research. Proceedings of a workshop, Airlie, Va., Oct. 1971. RAYMOND J. FRIEDMAN and MARTIN M. KATZ, Eds. Winston, Washington, D.C., and Halsted (Wiley), New York, 1974 (distributor, Halsted). xviii, 318 pp., illus. $15.

Somatic Manifestations of Depressive Disorders. ARI KIEV, Ed. Excerpta Medica, Amsterdam, and Elsevier, New York, 1974. iv, 128 pp. Paper, $13.50.

Nothing exemplifies the human condition more than depression. Raymond Friedman, one of the editors of *The Psychology of Depression*, notes that

> "depression" at one and the same time is considered both a normal and a pathological mood; a normal and also an abnormal reaction to loss; an enduring way of life and also a time-limited phenomenon; a state unto itself but also an aspect of other psychopathological conditions ranging from schizophrenia to the identity crisis of adolescence.

Depression has both a common meaning for all persons and a distinctive meaning for each person. The scientist who investigates depression thus approaches his task with preconceived notions based on his own life experiences. In his work he encounters depressed people with manifestations previously unfamiliar to him, including some classified as mental disorders. He may even encounter or experimentally induce behavior in animals that looks like depression as he knows it from his personal experience. Small wonder then that precise definition of the term depression remains elusive and its use colloquial even among specialists in the field.

This is conspicuous in the three volumes under review. Time and again the reader will have difficulty establishing what the writer means to convey by his particular usage of "depression," "depressed," or "depressive." This is most evident in Lesse's *Masked Depression*. The very term arouses curiosity as to what is being "masked," especially when Lesse lists as alternative terms "depression sine depression," "depressive equivalent," "affective equivalent," "latent depression," "hidden depression," and "depression in disguise." On the face of it the concept is disarmingly simple. Lesse claims that often when one probes a wide variety of disturbances, such as psychosomatic symptoms, antisocial acts, impulsive sexual behavior, sadistic or masochistic acts, compulsive work or behavior patterns, drug usage, and accident proneness, one "will find a depressive core from which a depressive affect will eventually become overt." He regards such disturbances as "different dimensions of depression, but nonetheless true depressive manifestations in which the usual depressive affect is not overt." Many such patients are "prone to develop depressive reactions" later in life. Among them "depressive disorders, very often of severe proportions, are commonly masked."

Thus in the very first paragraphs intended to define the theme of the book one finds a bewildering array of terms, "depressive core," "depressive affect," "dimensions of depression," "depressive manifestations," "depressive reactions," and "depressive disorders." Other contributors do little to dispel the confusion. Spiegel describes instances where display of anger or rage either distracts the doctor so that he misses the underlying depression or is used by the patient as a defense against depression so that he himself does not recognize he is depressed. Here Spiegel appears to be using depression first in a clinical, then in a psychodynamic sense. Bieber regards the sense of loss as operant in all depressions. For him masked depressions may include ones in which the patient is quite unaware that he is depressed, does not feel depressed yet recognizes signs and symptoms that he has come to identify as depression, or feels depressed yet is able to conceal it from others. Bieber prefers to view these as "depression-masking" rather than "depression-avoiding" maneuvers because the "clinical manifestations of depression" may be elicited in such cases without much difficulty.

Meyers, Tabachnick, and Farberow challenge the concept of "depressive equivalents," if not the "masking" itself. They argue that when coping or intrapsychic defensive operations effectively dampen or avert painful preoccupation with a loss, the constellation of symptoms or behaviors that present themselves instead cannot be considered equivalent to the depressive disturbances that might otherwise have emerged. Rather they should be seen as alternative ways of responding to and coping with the loss. Clinical experience supports such a view.

Since Lesse, Bieber, and others emphasize the ease with which they can elicit the clinical manifestations of depression from patients presumably not previously recognized as depressed, one might ask whether these might not better be regarded as instances of "missed" rather than "masked" depression. What these workers are mainly calling to our attention is that clinical manifestations of depression are commonplace but frequently overlooked.

More complex is the concept of a "depressive core" underlying symptom formation. This is by no means a new idea, having been put forth by Benedek, Bibring, Engel, and others. But in contrast to the clinical manifestations of depression, "depressive core" is an abstraction. It is always inferred, never manifest, hence the designation "masked" is inapplicable.

The focus of *Somatic Manifestation of Depressive Disorders*, edited by Ari Kiev, is on somatic symptoms encountered in the syndromes of depression as delineated in psychiatric nosology. Kiev provides an overview, Chaplan reviews gastrointestinal manifestations, Feighner discusses sleep disturbances, Renshaw catalogs sexual dysfunctions, Sternbach considers pain and depression, and Karno and Hoffman discuss what they call the pseudoanergic syndrome. This last contribution is the most valuable.

The term "pseudoanergic syndrome" is used to describe the syndrome of feelings of fatigue, weakness, apathy, defective concentration, and loss of interest. The syndrome is called "pseudoanergic" rather than "anergic" for two reasons. First, the complaint of loss of energy is a subjective symptom, not an objective sign, and indeed is often contradicted by objective measures. Second, the symptoms can rapidly reverse, at least temporarily, in response to brief social or psychological influences. The authors point out that these symptoms are not only virtually universal occurrences in the clinical psychiatric syndromes of depression, however classified, but also ubiquitous responses to the losses, frustrations, and conflicts that mark everyday life. The clinical depressions are distinguished by the tenacity of the symptoms in

the face of situational changes that ordinarily are associated with their alleviation. Karno and Hoffman speculate about an inherited potential for pseudoanergic expression and consider the role of neurotransmitter amines and biochemical changes as possible mediating mechanisms for a basic biological system responsible for this response. They consider the symptoms as the subjective experience of the inhibition of one's own behavior.

> The somatic experience is apparently communicated internally in the familiar, prepackaged sensory terms of naturally occurring physiologic inhibition, viz, the psychosomatic fatigue response to intense and prolonged effort.

This perspective has much in common with the conservation-withdrawal thesis put forth by Engel and Schmale as discussed further in Friedman and Katz's book, *The Psychology of Depression: Contemporary Theory and Research.*

This volume provides a nice balance between views of psychologists and those of psychiatrists and between the psychodynamic and behavioral approaches. The discussion of research also provides contrast and complementarity. Experimental psychologist Seligman considers the implications for the understanding of human depression of "learned helplessness" as produced in dogs in the laboratory. Klerman expounds psychodynamic perspectives on depression and adaptation. Lewinsohn records his research predicated on a behavioral theory of depression, and Ekman and Friesen provide data on nonverbal behavior and psychopathology. Other valuable contributions include Goodwin's remarks on the biology of depression, Kaufman's consideration of animal models, and Schmale's summary of development and the conservation-withdrawal reaction and their relationship to depression. Good editing of the lively interchange among the participants has imposed a degree of unity unusual for a conference report.

Despite the high quality of the contributions and the excellence of the editing, the reader still has to cope with ill-defined terminology, inferences drawn from noncomparable populations, and a tendency of many writers to confuse frames of reference. Beck's cognitive theory and research involve predominantly hospitalized psychiatric patients diagnosed as suffering from major depressions. Ferster, utilizing a behavioral approach, takes as his starting point a clinical definition of depression, namely, "an emotional state with retardation of psychomotor and thought processes, a depressive emotional reaction, feelings of guilt or criticism, and delusions of unworthiness." It is unclear what population of depressed persons provided the basis for this formulation. Were they individuals with all these characteristics or with only some? In Lewinsohn's presentation a discrepancy may exist between the definition provided and the characteristics of some of the subjects utilized in his research. "Depression" to him refers to

> the syndrome of behaviors that have been identified in descriptive studies of depressed individuals. It includes verbal statements of dysphoria, self-depreciation, guilt, material burden, social isolation, somatic complaints, and a reduced rate of many behaviors, ... For research purposes a patient (subject) is defined as "depressed" if he meets certain experimental criteria based on selected MMPI scales and on the interview factors identified by Grinker.

Not only does this define only a particular grouping of clinical depressions but, as Chodoff points out, some of Lewinsohn's "depressed" subjects were classroom students selected because they scored high on the particular rating scale he administered. Chodoff hesitates to accept these people as depressed; at most, he thinks, they are mild or borderline depressives.

The issue of whether depressions differ merely quantitatively, constituting a continuum, is pertinent. Many believe the severe depressive illnesses to be qualitatively different from the milder conditions and even to include a number of subgroups. What makes for such qualitative differences? Is it the addition of new components that are dysphoric, irrational, or disturbing to others, and, if so, are these elements essential to depression or are they additions to underlying depression? These questions once again underscore the need for precision in specifying what a theory of "depression" is meant to explain and experiments on depression to test.

But the reader should not be constrained or misled by such deficiencies in presentation. He should evaluate each presentation for what it contributes to understanding of the various elements and processes subsumed under the broad heading of depression. Appreciating that depression is in no sense a unitary concept, he should regard with indulgence the inclination of some writers to be overinclusive in what they claim for their theories or research. The reader also will profit by keeping clear—even if the writers do not always do so—the various frames of reference within which depression can be analyzed: the biological, the behavioral, the psychological, the social, and the cultural.

Viewed in this way the behavioral approaches put forth by Ferster, Seligman, and Lewinsohn are more complementary with than contradictory to the psychodynamic approaches espoused by Beck, Chodoff, and Klerman. Ferster in particular considerably narrows the gap (though on the face of it he appears to be widening it) when he writes:

> The behavioral description is more useful than the mentalistic one because we can see the details of how a person comes to act distinctively to the various features of his *inside* and outside environment.

Ferster does not specify what he means by "inside environment," but the psychodynamically oriented will certainly include psychological processes, conscious and unconscious. To do so permits consideration of how learning theory might be helpful in understanding the mental processes that precede, influence, and parallel overt behavior, including verbalization. When Beck reports as support for his cognitive theory that success in a defined task improved performance by depressed patients he actually provides support for Ferster's reinforcement theory as well.

Seligman's formulations derived from the experimental production of "learned helplessness" in dogs serve to illustrate the usefulness and limitations of the behavioral approach as well as to highlight the value of utilizing different frames of reference in the analysis of depression. Learned helplessness is the term applied by Seligman to the passive, inactive, relatively unresponsive behavior of dogs repeatedly exposed to inescapable shock. Such animals also become retarded at learning. Seligman ascribes this behavior to the animal's learning that responding and reinforcement are independent, that it no longer has control over its environment. This results in a cognitive set that has two basic effects: fewer responses to control reinforcement are initiated, and associating successful responding with reinforcement becomes more difficult.

Seligman proposes learned helplessness as a model to understand those depressions in which

> the individual is slow to initiate responses, believes himself powerless and hopeless, and has a negative outlook on the future which had begun as a reaction to having lost his control over relief of suffering and gratification.

He cautions that learned helplessness does not capture the whole spectrum of depression. This proposition poses the question of whether "learned helplessness" characterizes a particular type of depression or is a common element or process of depression in general. In analyzing learned helplessness behavior Schmale cites the work of Engel, Reichsman, and himself that led to the formulation of the concept of conservation-withdrawal, a biological concept. Conservation-withdrawal refers to threshold mechanisms whereby survival of the organism is supported by processes

of disengagement and inactivity vis-à-vis the environment. It is a response characteristically evoked when input becomes or is perceived as excessive and beyond the organism's capacity actively to cope with or becomes or is perceived as inadequate to meet the organism's needs. In behavioral terms, these also define conditions under which the organism loses control by virtue of dissociation between responses and reinforcement. The biological goal of conservation-withdrawal is to conserve resources and to assure autonomy until environmental or internal conditions are more suitable. As a basic biological regulatory system, conservation-withdrawal operates in all forms of life. Seligman's contrived experimental situation is one highly likely to activiate the neurally preprogrammed biological system mediating conservation-withdrawal. Accordingly, what the animal learns is not "helplessness" but the conditions under which there is survival value in responding with conservation-withdrawal. Conservation-withdrawal must be analyzed in biological terms. The way in which the circumstances under which it is to be evoked are learned must be analyzed in behavioral terms.

Once due consideration is given to the various frames of reference implicated in the study of depression, many contributions in the three books fall into place and seminal questions are generated. From both the phylogenetic and the ontogenetic perspective, conservation-withdrawal and the neural organization mediating it may be regarded as the biological substrate for all depressive phenomena that involve reduced activity and passivity. This provides a biological frame of reference. Conservation-withdrawal is experienced as "pseudoanergia," as described by Karno and Hoffman. This is a psychological frame of reference. The behavioral frame of reference helps to define some of the conditions under which the organism learns to invoke conservation-withdrawal. Learning theory and psychodynamic concepts together provide insight into both the developmental and the precipitating factors in episodes of "pseudoanergia," felt conservation-withdrawal, so to speak. But as Beck points out, not all manifestations of depression can be ascribed to a desire to conserve energy. It is in this regard that psychodynamic, including psychoanalytic, perspectives prove helpful, for they provide insight into the multiplicity and complexity of the personality variables that may affect how an individual experiences and responds to giving up and to conservation-withdrawal. Schmale points out that giving up with its associated affects of helplessness or hopelessness may evoke a conservation-withdrawal response or may lead to various defensive and coping maneuvers aimed to overcome giving up or to avert conservation-withdrawal. From this can be anticipated a variety of clinical patterns of depression. Chodoff, noting the lack of evidence for any consistent personality pattern predisposing to depression, proposes that personality patterns exert their effects by coloring and altering the manifestations of depressive illness.

By designating a biological threshold mechanism and response system, conservation-withdrawal, as the keystone of depression in all its forms, it also becomes possible to understand depressive episodes that originate from neural activity, such as ictal depressions with temporal lobe disorders or depressions induced by amine-depleting substances. Similarly, one may postulate that defects in biochemical mechanisms regulating the neural system underlying conservation-withdrawal may result in abnormally low thresholds for induction of depressive reactions or abnormally high thresholds for their termination.

Friedman and Katz's book raises many more questions than it answers, but they are questions that indicate progress toward understanding the spectrum of human experiences called depression.

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Evolutionary Ecology

Coevolution of Animals and Plants. Papers from a symposium, Boulder, Colo., Aug. 1973. LAWRENCE E. GILBERT and PETER H. RAVEN, Eds. University of Texas Press, Austin, 1975. xiv, 246 pp., illus. $12.50. Dan Danciger Publication Series.

This book is a product of a symposium whose 11 contributors were charged to weave together a diversity of fascinating botanical and zoological information, much of it new, in support of coevolution as a process. The authors have worked assiduously in preparing a set of papers that covers a delightfully broad range of topics, concentrating on interactions between flowering plants, insects, rodents, and birds.

Paul Feeny's article on biochemical coevolution is a valuable summary of recent ideas and evidence on the ecological significances of secondary plant chemicals in relation to insect-plant evolution. He lays out clearly the evolutionary and ecological costs of various protective strategies that plants have available to them and develops this within a context of community evolution. Miriam Rothschild presents a broad overview of the evolutionary history and significance of carotenoids and enthusiastically develops what may well prove to be an incisive hypothesis, namely, that these plant pigments have played a major role in providing the biochemical basis for the evolution of the majority of animal senses.

Christopher Smith concentrates on temperate-zone rodents as seed predators and advances the conceptual basis of coevolution and community stability. His presentation provides a fine counterpoint for the well-known work of Daniel Janzen on insect seed predators in the tropics. Brian Hocking, who to everyone's great loss died before seeing his work in print, provides a splendid discussion of the mutualistic relationships of ants and tropical *Acacia* plants, with an emphasis on the energy needs of both.

Calaway Dodson summarizes much of his own and his students' work on the relationship of New World orchids and bees, concluding that with the probable exception of euglossines little coevolution has occurred between the two groups. Herbert and Irene Baker thoroughly review the chemical constituents of nectar together with substantial new results of their own in a characteristically solid and interesting paper. Though they point out that the wide array of chemicals in nectar provides a spectrum of potential interactions and opportunities for coevolution, their evidence argues strongly for long-continued fine tuning by the flowers for their own advantage in exploiting insects and other pollinating animals. Bernd Heinrich develops his ideas on how nectar- and pollen-foraging behavior in bumblebees is largely structured by energetics and presents elegant new supporting data.

In a masterly survey of information on fruit dispersal by birds, Doyle McKey approaches coevolution more as a product than a process. He presents evidence for a major dichotomy between high-quality seed dispersal by specialized frugivores, involving k selection, and low-quality dispersal of large numbers of seeds, involving r selection. The remarkable mechanisms by which seeds are ingested but not digested, as well as a host of other fascinating information, are summarized and related to the long-term evolutionary interplay between tropical fruits and frugivorous birds. Gordon Frankie, in a novel and refreshing manner, summarizes his own and others' extensive research on neo-