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Is Mental Illness Ineradicably Normative? —A Reply To W. Miller Brown

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In his recent article, "A Critique of Three Conceptions of Mental Illness," Brown (1985) raises doubts as to whether the traditional concept of "mental illness" can truly possess either existential or practical import. Holding to a Szasz/Foucault line, Brown argues that mental illness should be looked upon as evaluative, but not as symptomatic of a disease condition and not as something that can be based on theoretical grounds. What I argue in this paper is that the Szasz/Foucault line of argument that Brown maintains is not tenable; that mental illness is not a metaphorical reaction to a breakdown in social interpersonal relations, but a deeply laid condition characterized by the absence of structurally integrated thought.

In his recent article "A Critique of Three Conceptions of Mental Illness," W. Miller Brown (1985) raises serious doubts as to whether the traditional concept of "mental illness," or for that matter any psychopathological designation, can truly possess either existential or practical import. Holding firm to a Szasz/Foucault line, Brown argues *seriatim*:

(1) that mental illness (or disease) has independent status and is "not to be correlated with any discernible general physical abnormality" (p. 555);

(2) that in such "impaired" states it is only the functional aspects of behavior, beliefs or desires which are in fact diseased; and

(3) that mental illness should be looked upon as evaluative, or at worst symptomatic of functional impairment, but not as symptomatic of a disease condition and not as something that can be based on theoretical grounds.

In light of the shortcomings of psychiatric taxonomies,[1] I think that we can agree that Brown has every right to alert us to the potential difficulties and abuses that can come from any systematic attempt to set up a tightly fitting

[1]In 1968 the American Psychiatric Association issued DSM-II (*The Diagnostic and Statistical Manual of Mental Disorders*). The criteria established by DSM-II for classifying disorders have proven neither reliable nor practical. To save the paradigm, in a Kuhnian sense, the APA has come out with what has been touted as a non-standardized DSM-III with only highly recommended criteria—criteria which the clinician can discreetly use or discard as he or she sees fit.

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criterion of mental illness; particularly when this is accompanied by a policy of enforced treatment on those who exhibit bizarre life styles. The fact that assessing competency or incompetency in informed consent proceedings seems to be a decision based more on how people should be treated than on objective standards of rationality (Macklin, 1983); that no single standard has been efficient enough to distinguish psychotic cases from borderline cases either cross-culturally or intraculturally (Blashfield and Draguns, 1976); and that deviancy as such does not have an inherent property that would make it anything other than a normative phenomenon, certainly gives validity to the point that "the standards of proof and evidence differ and the procedures, if any, for adjudicating conflicts in judgment are all different" (Brown, 1985, p. 575). Perhaps no effort has revealed this more dramatically than the Rosenhan study (1975) where eight psuedo-patients who did not have, and never did have, a pathological condition were diagnosed as psychotic in twelve different hospitals.

To push his case one step further, I think that we can also agree with Brown that mental illness cannot be simply identified with physical illnesses or diseases (which is not to say, of course, that mental illness is an irreducible non-physical disorder). Although there is little doubt that integrated physical structures (e.g., the reticular formation and central nervous system) in some way stimulate and limit the structure of mental processes, it is also apparent that there are no nomological bonds or bridge-law candidates around, *pace* Churchland (1981), that would make the predicates of psychology co-extensive with the kind predicates of physical description. Physical factors, along with hereditary and environmental factors, might increase ones sensitivity and probability to a variety of baneful possibilities and trauma, but whatever mental illness is supposed to be it does not appear to be reducible to things like abnormal left hemispheric function (Andreasen, Dennett, Scott, and Damasio, 1982), ventricular enlargement (Andreasen et al., 1982), information processing delays (Walker and McGuire, 1982), or dopamine sensitivity (Seidman, 1983).

What I would argue in this paper, however, is that regardless of Brown's legitimate assault on a health-disease concept of mental illness, the Szasz/Foucault line of argument that he maintains is not only untenable, but it ultimately ends up eating the sword it fights with. To say this somewhat more prosaically: by making mental disease a symptom which is not in fact a symptom of anything—a move always based on ideological motivation—Brown's account tragically ignores what could be a very serious condition and thereby limits the extent of our therapeutic potential. There is more to human operations, and therefore more to mental illness, than can be found on this ontology. Even though terms like "disease" and "illness" are admittedly "unscientific" concepts in that they refer to no discernible causal structure, I

will attempt to show that mental disorder (the more preferable cognomen) is best conceived as not a metaphorical reaction to a breakdown in social interpersonal relations, but a deeply laid condition characterized by the absence of structurally integrated thought.

A Structural Approach

I take it that for the most part what we are is shaped and sustained by our social and biological heritage. As cognitive psychologists in particular have not been reticent in reminding us, the mind rarely attends to things in their purity. A good deal of our beliefs and desires are products of patterns or organized schemes which we almost mechanically engage.

What these schemes provide is a limited field in which our innermost activities perform. Although much of the field has already been laid out, I take it to be an empirical fact that the individual contributes to the design and composition of his or her own mental set by sorting out the multiplicity of stimuli that beset him/her and by striving to order his or her environment into a coherent figural unit. Enough information has been obtained to indicate that not only do stored master representations focus on things unique to the subject, but evidently the object to be processed has a particular entry point level that is very much dependent upon the person's receptivity (Humphreys and Revelle, 1984; Johnson-Laird, 1983). Just as paradigm formation is to Kuhn an adaptive mode necessary for species survival, such schemes are the way individuals fashion for themselves, although not necessarily consciously, an arrangement of utility and meaning.

What the make-up and form of these mental sets are is a major challenge to those who seek to understand the dynamics of mind. Though empirically-minded epistemologists have been generally critical of any rationlist notion of a "language of thought" (primarily because it cannot be known through its effects), they apparently have not been so adamant in their censure as to abandon the idea of thought as language; that is to say, that most philosophers today still hold language-like states to be the prime factor in the epistemological enterprise. Davidson's position (1978) that even though we cannot understand what a person says until we understand his or her beliefs, we should still assume that the beliefs are consistent with what he or she says; and Stich's notion (1978) that only belief states and not subdoxastic states possess the necessary awareness and assertion to be inferentially integrated, clearly test mental order in a publicly propositional (rather than privately coded) way.

Now, though Brown never suggests that mental activity must be seen as a sentence analogue, he does maintain a variation on the theme of an epistemic field, i.e., a subject's relation to a symbolic field where the standards of

evidence and consistency are predicated on how they fit into the belief structure at hand. Following the trend in recent epistemology away from a foundationalist position, Brown evidently goes the routes of Quine, Sellars, Davidson, etc., and argues that we cannot judge people's beliefs or actions as strongly illogical or irrational since such concepts are fully evaluative and imposed in the context of "bounded rationality" and social standards.[2] A theory such as Ruesch's (1957) which assumes that the transmission of unintelligible statements and the constant misinterpretation of messages received are the most reliable signs of mental illness is simply inadequate because it fails to realize that the standards of judgment involved are more a commentary on the social system at work than the mental capabilities of the person.

That social standards and practices tend to order and arrange things in terms of approved and disapproved behavior, and that these standards of judgment can sometimes be arbitrary guidelines which endanger justice, I take as an uncontestable fact. To Brown's credit, recent studies have clearly found that though the ratings for overall deviant verbalization among disordered patients have been relatively high, disturbances of communications are neither unique to nor necessarily indicative of mental disorder (Harrow and Prosen, 1979; Siegel, Harrow, Reilley, and Rucker, 1976). Evidently a person can transgress the norms of proper word usage and yet be quite equitably disposed.

What is at issue here, however, is whether a criterion of mental illness is totally obsequious to "the idols of the tribe." Admittedly epistemologists of any persuasion, if they are not to reduce knowing to a particular psychological state and protect self-justification, just deal with the public element in correct inference rather than events in the individual's head. But traditionally epistemologists have only stressed the end product, or conclusion, of what appears to be a nonlinear, multidimensional process, not the total process itself. And as the capacity on the part of computers to unite sensible responses is not indicative of intelligence, so I would think that the fact that a sensible series of responses can be made does not necessarily entail an ordered mind. What I am saying is that Brown somehow misses the point that whereas deviant behavior does not indicate mental disorder, neither does following correct behavior deny it. The interanimation of psychological states cannot be explained solely by semantic attribution. I assume that grammatical sentences of personal form, i.e., token reflexive expressions like "I got my head together," can be made without implying at a deeper level of articulation either intentional design or

[2]Certainly the recognition (1) that sociological elements enter into all theories; (2) that the contingency of the association between external physical theory and internal experiences precludes a phenomenalist reduction or unmediated representation; and (3) that all phenomena share their semantic features by virtue of the role they play in a structure of related concepts and beliefs, has brought philosophers and social scientists closer together and has provided a new epistemological look at the structure of our beliefs about truth and reference.

structured identity. No doubt many patients are greatly confused and yet are still able to converse with doctors and friends.

From my standpoint overemphasizing the public and social character of mental illness only separates us from a privileged set of abstract and emotionally charged representations which, because of their closeness to the psychological and physical needs of the subject, reflect a deeper conceptualization of the individual than a Szasz/Foucault line of argument can handle. If Brown wants to avoid a psychological turn and deal with the epistemic character of mental illness then he cannot expect to stand in the streets of psychology, at least non-folk psychology, to direct traffic. As it is not obviously true that our observations are totally and irredeemably colored by our beliefs and linguistic concepts, so it is not obviously true that the mental has to be accounted for solely in epistemic terms. The context of social standards and practices may be the best way of dealing with a consensual validation of belief or the objective order of knowing, but such a dimension cannot account for the many visages of psyche or the inner dynamics which effect and limit human conduct.[3]

To put it another way, the ideological component that Brown stresses is hard pressed to come to terms with the emotional, conative and historical individual—those non-relational, non-epistemic factors which deal with the subject's order of being and how the world is to him or her. Though many philosophers have been strongly opposed to private, "beetle in the box" references (primarily because they extend belief to non-propositional states whose content cannot be reported), I take it from what is known about internal representations—(1) that they are prototypical and violate the all or nothing categories of classical logic; (2) that they are connected with human emotions and expectations; and (3) that they analogically relate objects and experiences from the past to objects and experiences in the present—that such a perspective is not in any sense vacuous or nonsensical. Brown may assume that any account of mental illness is undetermined by evidence, but if a twenty-two year follow-up study of acute schizophrenia means anything then social criteria are inadequate precisely because they focus almost exclusively on manifestations of disorder rather than on those intrapsychic structures where objects and events, even non-existent objects and events, relate to each other in an ideographic arrangement of being (Knight, Roff, Barnett, and Moss, 1979).

[3]Research relating to associative learning, narrative structures and memory retention has well demonstrated that image systems provide a conceptual core of abstract entities that are inferentially connected with a framework of belief, and apparently, because of their prototypical and global nature, can offset attention to things even more so than language (see Bugelski, 1970; Levin and Divine-Hawkins, 1974). I might add that just because there is no such thing as a justified belief that is non-propositional does not warrant the conclusion that these non-propositional states cannot be belief formations.

It is the major contention of this paper that these blueprints or body-images we have of ourselves with respect to our parts, as well as to the world around, provide a way of dealing with the "inner" person that is over and above social standards of judgments—and moreover, that such schematic arrangements afford us an opportunity to understand the order of mental sets as well as the figural disruption which can lead to its disorder. Indeed, the force of such figural disruption may be so overpowering at times, especially in intense need states, as to thwart any translation into a social context. As one psychiatrist has duly noted, the anomie of pathological thought—the bewildering sensation that one's thoughts are no longer under control—is so beyond paraphrase that only figurative expressions that violate contextually fixed signs can be privy to its inner workings (Horowitz, 1967).

An aversion to the world as extant, attended by a sense of powerlessness and confusion, are common symptoms of mentally disordered patients. The tendency on the part of those like Brown to view this as "not in fact symptoms of anything" (p. 562) overlooks the real possibility that this sense of disunity might be part and parcel of a more complex disarrangement. The idea that we can neatly place all variations of mental deviancy under an ideological banner can only be regarded as syncretic and totally without warrant. If anything, recent findings seem to suggest rather strongly that whereas so-called borderline cases have only fictitious psychotic symptoms, more acute states (e.g., schizophrenia) are replete with organizational problems and structural disturbances (Pope, Jeffrey, Hudson, Cohen, and Tuhen, 1985; Spitzer, Endicott, and Robins, 1979).

Although varying types of disorders no doubt exist of varying depth, duration and debility, research into cognitive operations especially has provided considerable demonstration that mental disorder, in comparison to less cognitively deteriorating behavioral, psychophysiological or conscious disorders (e.g., the disunity of the akratic, commissurotomized and self-deceptive person), is not simply a deviation from established social norms but a condition of compositional impairment. A condition which seems to be uniquely characterized by the disintegration of ego boundaries and the inability to impose systematic images on information received (Kernberg, 1975; Witkin, 1965).[4]

A mentally disordered person is a tragic soul that is besieged by conflicting forces. On the one hand, there are tyrannical unbidden images which dominate the person's life to the point that he/she is incapable of affecting it (often leading to painstaking repetition and meaningless tasks). On the other

[4]A recent study by Chapman, Chapman, and Rawlin (1978), has found that the body-image aberration among schizophrenics in particular is part of a broader scheme of imaginal distortion. Indeed, there is some evidence to suggest that such thought disorders may even affect, rather than reflect, neuronal activity in the cortex.

hand, there are anarchistic factors which segmentalize the person to such an extent that no governing paradigm or integrated "I-ness" can be sustained (many of the mentally disordered are flooded with an undifferentiated mass of incoming data which seems to evade central processing). As Arlow (1969) had pointed out a long time ago, the mentally disordered are those that are not in possession of an integrated system of reference or representation. Unlike the master chess player who has an internal representation of position and look-ahead goals, the disordered individual has no sense of where on the board he or she is and no game plan as to where he or she is going. Though his/her short-term memory processes for categorical and sequential material may be adequate, and though the basic meaning of simple visual stimuli are in tact, the disordered person tends to lack an organized hierarchy that can put complex events under a modal index or provide the self with a global perspective (Knight and Sims-Knight, 1980; Marusarz and Koh, 1980).

Whereas the artist world is a possible world ("possible" in the sense of being feasibly combined, rather than compatible with a set of relevant propositions, commonly held beliefs or causal laws), the world of the mentally disordered is a "world" without possible extent—there is no scheme of self, other and place that hangs together in a way that is coordinate. This does not mean that such a condition is static or fixed. Even though long-term schemes are difficult to change, a disordered person may be able to reform earlier paradigms by acquiring or constructing a new symbolic framework (one-third of all schizophrenics recover for keeps). What is clear, however, is that the formation of a world that does not correspond to what some (Hirsch, 1978) consider to be a non-apriori universal sense of cohesiveness and continuity, is not reducible to simply a digression from social norms, but points instead to a more involved condition of structural disintegration.[5]

[5]It is self-evident that if we are to profit from any observations made on non-linguistic representation, and there seems to be adequate externalization of inner thought to support such investigations, we will have to express these findings in a linguistic mode. Since the global, pre-attentive representations of imagery are less differentiated than the propositions of language and perception (and therefore more difficult to recover and articulate), the Quinean-type question rears its head as to how a translation of image formations can be possible. It is obvious that an effective logic, or hermeneutics, of image systems would have to compromise with the vagueness of the figure, i.e., the coalescing of multiple meaning into a single image, to solve problems too complex for a calculus of well-formed formulae and tightly bounded categories. Besides a metalanguage to set up rules of interpretation and correctness for non-standard operations, such a model would require a non-bivalent logic where truth value gap would be allowed (similar to assessing the harmony, rather than the melody of a musical piece). By "structured" interviews (see Kernberg, 1975), kindled by the warmth of dyadic communication, it is believed that the inferential pattern of image formations can be assessed and that this will provide the clinician with a better gauge of mental disorder than ordinary predicate logic. It should be clear that we are not restricted to, nor should we restrict ourselves to, phenomenological reports. Hypnosis, imaginal-perceptual testing (e.g., *Object Sorting Test, Rorschach Test, Guilford-Zimmerman Spatial Orientation Test*, etc.), symptomatic and behavioral observations, and even medical reports could be used to acquire a cross-level profile of the patient.

Conclusion

A structural account of mental disorder is not a way of bringing together varied notions or a trivial argument that is true in virtue of its form—it is an inductive explanation that offers a more enriched and accurate description of an unfortunate human affair. This is not to say that such an account can whittle away accidental features to finally lay bare the essence of mental disorder. Not only are essences ambiguous properties in that there are various ways of expressing "essentiality," but the composition of mental processes might be so confined to the interior of bodies that no description or set of criteria can ever hope to distill its inherent nature. Certainly not every obsession, compulsion or irrational belief denotes mental illness.

To reject a single descriptive view of mental disorder, however, is not to imply that one must lean towards a sociological account or that in pains of infinite regress that no structural explanation is possible. Even though there are no rigid lines of demarcation between psychopathological states, it would be blatantly errant to conclude that this suggests no qualitative differences. As there is more to human intentionality than simply responding to changing stimuli, there is more to mental disorder than what falls under the canopy of functional disability. The conclusion of Brown that symptomatic impairments do not necessarily mean mental illness might be correct as it stands, but it portrays causation in such a linear, unifactorial sense that it only ends up skimming the surface of a more deeply reaching concern. As Putnam (1975) has noted in a classical response to Malcolm, outer criteria are not always good indicators of inner states; and failing to comply to cultural or ethical standards might indeed further incomprehension and social disapproval, but as none of this logically entails disordered thought, none of this eliminates the possibility of inner structural disturbances.

Not that we can afford to shun manifested properties, for such signs give expression to malfunctions and provide hints to their causes. In the same way that a theory of gravity has to reckon with the actions of atoms and elementary particles, any account of mental disorder must be compatible with observed phenomena (e.g., a high degree of relationship holds between the symptoms of delusional intrusion and acute schizophrenia). But the symptom must be a symptom of something; and by making mental illness symptomatic of nothing, Brown completely exhausts analysis by not allowing a general explanation of the character of the action observed and by not providing a theoretical basis for deciding whether these symptomatic dysfunctions bear any resemblance to each other.[6] I would think that such a rampant principle of charity would only pre-empt the possibility of further improvement; since if we cannot assume a

[6]The difficulty with Brown's account is the difficulty with the current APA scheme called DSM-III. Both are atheoretical approaches that have trouble handling mental illness existentially

condition to be disordered, then we cannot prepare a strategy, research program or procedure to accommodate it. Without a thicker and richer base (a more adequate theory of reference), Brown's account does not provide us with a deep enough philosophy of being and of knowledge that can lead psychiatry to a better understanding of mental illness or to a better treatment of the patient.

To those of a liberal and individualist bent, such an account may seem very appropriate in that it can adjust itself to the singularity of cases and the diversity of expressions. But such a service to freedom is quite deceptive for a closer scrutiny will, I think, clearly show that in the long run Brown's position only reduces the individual to a token status while leaving us inaccessible to one another. Perhaps better put: by restricting inquiry on mental illness to discourse about the social processes which construct, organize, transform and utilize meaning, Brown leaves the "inward" side of the person—everything fraught with meaning and life that is commonly considered to be intrinsic to him or her—as either epiphenomenal or irrelevant to the goals of theory construction. I am considerably fearful that by making mental illness a surface manifestation that is not worth pushing inward such an account will only impel psychiatrists to look towards non-psychological alternatives and custodial measures (e.g., pharmacology) as being a more effective form of procedure than long-ranged psychological treatment. I take it as a principle of philosophy that if an item is not essential to articulation then there is no need to maintain it in the ontology (and even less reason to act on it). If mental illness is atheoretical in its psychological form, and illness is only theoretical when identified with physical and biological abnormality (as Brown indeed suggests), then I stand bewildered as to how such a "liberal" approach can discourage the use of somatic treatment. There might be two names on the ballot, but in the world that is real it appears that we can only vote for one.

This is not to minimize Brown's efforts. To review what we mean by "mental illness" is not a nugatory contribution: a careful elucidation of this concept helps qualify its meaning and delineate its usage, particularly where issues of competency and responsibility are of concern. But, as philosophers should be well aware of, language is a factory that can disassemble as well as combine. And to restrict ourselves to pointing out the multiplicity and uncertainty of cases of the kind named, without attempting to theorize as to what it is to be of that kind, can leave us abandoned with no reality left beyond language.

If the human self is more than a collection of socially discernible occurrences or functionally individuated states, then "mental illness" might be best conceived as not a strained metaphor, but as a condition that is characterized

because there are no higher grounds available to explain indexical elements or to decide between incompatible true versions; both have trouble explaining how populations group together so that one can determine what the next case will be.

by the absence of a structurally integrated system. To some this description may seem too broad to be beneficial—no doubt they have a point, for such a description does little to help the person in the clinical trenches who is constantly beleaguered by troubled souls and who anxiously seeks a sound theoretical base to identify the nature of human ailments. But the difficulty of identifying mental illness does not imply the lack of reference. And the purpose of this article was not to design a calculus for delineating the various types of disorders (a job more suitable for psycho-psychiatric research), but to provide some insight into the nature of mental illness and what theoretical issues are at stake. Regardless of what standards are employed, though I certainly will concede to Brown that the best standards will not come from social or medical norms, such limitations do not eliminate the structural aspects of mental operations nor detract in any way from the accuracy of our description concerning what constitutes its disorder.

In a manner peculiar to themselves, human beings are contingent facts of psychology who are innately disposed to develop an essential normal concept of themselves.[7] A condition of figural description violates this cognitive symmetry to the point that no converging pattern or integrated system of reference can be sustained. To dismiss this claim on the grounds that "mental illness" is the product of social standards and practices not only overlooks a privileged set of abstract and emotionally charged representations which constitute a deeper conceptualization of the world, but it limits mental disorder to manifested behavioral disorders and thereby disregards the possibility of a more comprehensive impairment. Under highly emotional and painful life experience, the world of the individual can become a journey without maps. This paper has suggested that when no scheme of self-sameness or otherness prevails, such figural description goes beyond normative evaluation and the principle of charity and must be regarded as a condition of mental illness.

References

Andreasen, N., Dennett, J., Scott, A., and Damasio, A. (1982). Hemispheric symmetries and schizophrenia. *American Journal of Psychiatry, 139*, 427–430.

Andreasen, N., Smith, M., Jacoby, C., Dennett, J., and Olsen, S. (1982). Ventricular enlargement in schizophrenia: Definitional prevalence. *American Journal of Psychiatry, 139*, 476–482.

Arlow, J.A. (1969). Unconscious fantasy and disturbances of conscious experience. *Psychoanalytic Quarterly, 88*, 1–27.

[7]The fact that subjects do not divide their orientation between non-adjacent location (Mandler, 1980), that catastrophic injuries do not always change and eliminate what is learned (Pribham, Nuwer, and Baron, 1982), and that the disassociation induced in commissurotomized patients is often artificial and fleeting (Marks, 1980), suggests that there is a dynamic cohesiveness at work within every human being.

Blashfield, R., and Draguns, J. (1976). Evaluative criteria for psychiatric classification. *Journal of Abnormal Psychology, 85*, 140–150.
Brown, W.M. (1985). A critique of three conceptions of mental illness. *The Journal of Mind and Behavior, 6*, 553–576.
Bugelski, B.F. (1970). Words and things and images. *American Psychologist, 25*, 1002–1012.
Chapman, L.J., Chapman, J.P., and Rawlin, M.C. (1978). Body-image aberration in schizophrenics. *Journal of Abnormal Psychology, 87*, 399–407.
Churchland, P. (1981). Eliminative materialism and propositional attitudes. *The Journal of Philosophy, 2*, 67–89.
Davidson, D. (1978). Philosophy as psychology. In S.C. Brown (Ed.), *Philosophy of psychology* (pp. 309–323). New York: Barnes and Noble.
Harrow, M., and Prosen, M. (1979). Schizophrenic thought disorders: Bizarre associations and intermingling. *American Journal of Psychiatry, 34*, 293–296.
Hirsch, E. (1978). A sense of unity. *The Journal of Philosophy, 9*, 470–494.
Horowitz, W. (1967). Visual imagery and cognitive organizations. *American Journal of Psychiatry, 23*, 938–946.
Humphreys, M.S., and Revelle, W. (1984). Personality, motivation and performance. *Psychological Review, 91*, 153–184.
Johnson-Laird, P.N. (1983). *Mental models*. Cambridge, Massachusetts: Harvard University Press.
Kernberg, O.F. (1975). *Borderline conditions and pathological narcissism*. New York: Jason Aronson.
Knight, R.A., and Sims-Knight, J.E. (1980). Integration of visual patterns in schizophrenics. *Journal of Abnormal Psychology, 89*, 623–634.
Knight, R., Roff, J., Barnett, J., and Moss, J. (1979). Concurrent and predictive validity of thought disorder and affectivity: A 22-year follow up of acute schizophrenia. *Journal of Abnormal Psychology, 88*, 1–12.
Levin, J.R., and Divine-Hawkins, R. (1974). Visual imagery in a prose-learning process. *Journal of Reading Behavior, 6*, 23–30.
Macklin, R. (1983). Philosophical conceptions of rationality and psychiatric notions of competency. *Synthese, 57*, 205–224.
Mandler, R. (1980). Recognizing: The judgment of previous occurence. *Psychological Review, 39*, 252–271.
Marks, C.E. (1980). *Commissurotomy, consciousness and unity of mind*. Cambridge, Massachusetts: MIT Press.
Marusarz, T., and Koh, S.D. (1980). Contextual effects on the short-term memory retrieval of schizophrenic young adults. *Journal of Abnormal Psychology, 89*, 683–696.
Pope, H.G., Jeffrey, M., Hudson, J., Cohen, B., and Tohen, M. (1985). An empirical study of psychosis in borderline personality disorder. *American Journal of Psychiatry, 142*, 1285–1290.
Pribham, K., Nuwer, M., and Baron, R. (1982). The holographic hypotheses of memory structure in brain function. In D. Krantz, R.C. Atkinson, R.D. Luce, and P. Suppes (Eds.), *Contemporary development in mathematical psychology* (pp. 416–457). San Francisco: Freeman.
Putnam, H.L. (1975). Dreaming and 'depth grammar'. In *Mind, language and reality* (pp. 304–324). London: Cambridge University Press.
Rosenhan, D.L. (1973). On being sane in insane places. *Science, 179*, 250–258.
Ruesch, J. (1957). *Disturbed communications*. New York: W.W. Norton.
Sarbin, T., and Juhasz, J. (1978) The social psychology of hallucinations. *Journal of Mental Imagery, 2*, 117–143.
Seidman, L.J. (1983). Schizophrenia and brain dysfunction: An integration of recent neurodiagnostic findings. *Psychological Bulletin, 94*, 195–238.
Siegel, A., Harrow, M., Reilley, K., and Rucker, G. (1976). Loose associations and disordered speech patterns in chronic schizophrenia. *Journal of Nervous and Mental Diseases, 162*, 105–112.
Spitzer, R.L., Endicott, J., and Robins, E. (1975). Clinical criteria for psychiatric diagnosis and DSM-III. *The American Journal of Psychiatry, 132*, 1187–1192.
Stich, S. (1978). Beliefs and subdoxastic states. *Philosophy of Science, 45*, 499–518.
Walker, E., and McGuire, M. (1982). Intra- and interhemispheric information processing in schizophrenia. *Psychological Bulletin, 92*, 701–725.
Witkin, H.A. (1965). Psychological differentiation and forms of pathology. *Journal of Abnormal Psychology, 70*, 317–336.