UNDERSTANDING DELUSIONS

Mark J. Sedler, MD

DEFINING DELUSIONS

The definition or clear conceptualization of delusions has proved to be more difficult than often is recognized. Historically, the term denoted in common sense fashion simply a "fixed false belief." Stedman's medical dictionary wastes no words on the notion which is traced to the Latin de-ludo from lusus, "to play false, deceive," stating its meaning to be "a false belief or wrong judgment." Hinsie and Campbell provide some further psychiatric elaboration but only after succinctly defining delusion as "a false belief, born of morbidity." And, in general, this concise and handy explanation serves the purpose of clinical utility by correctly pointing the clinician in the direction of the phenomena under consideration. Yet, when a rigorous effort is made to demarcate the boundaries of this notion, to sort out examples and counterexamples, to account for exceptions on both sides, and to gain a deeper understanding of the phenomena at issue, then this conventional account begins to reveal its shortcomings. In order to gain an appreciation for the problematic character of the concept of delusion, consider the current, official definition of the term. The DSM-IV glossary explains the concept of delusion as follows:

A false belief based on incorrect inference about external reality that is firmly sustained despite what almost everyone else believes and despite what constitutes incontrovertible and obvious proof or evidence to the contrary. The belief is not one ordinarily accepted by other members of the person's culture or subculture (eg, it is not an article of religious faith). When a false belief involves a value judgment, it is regarded as a delusion only when the judgment is so

From the Department of Psychiatry and Behavioral Science, School of Medicine, State University of New York at Stony Brook, Stony Brook, New York

extreme as to defy credibility. Delusional conviction occurs on a continuum and can sometimes be inferred from an individual's behavior. It is often difficult to distinguish between a delusion and an overvalued idea (in which case the individual has an unreasonable belief or idea but does not hold it as firmly as is the case with a delusion).¹

At first glance, this definition seems simply to amplify the traditional idea of a delusion as a "fixed false belief" and does not appear to be especially problematic. A critical consideration of this definition, however, raises a host of questions about the assumptions embedded here: is a delusion necessarily false; is it truly a belief rather than some other intentional form (eg, a fantasy or perception); does it necessarily refer to external reality or can it refer to internal, private, experiences; is its alleged incorrigibility absolute or relative; to what extent does the exemption offered by consensual or cultural claims confound the issue; or, vice versa, is the incredibility of an extreme opinion a satisfactory marker for delusional opinion; is the difference between a delusion and an overvalued idea one of degree or one of kind; and so on.

These are not idle equivocations. Such questions go to heart of whether or not we have yet fully conceptualized a diagnostic notion, which, for the most part, we are able to use clinically without confusion. And, even at the clinical level, these conceptual distinctions are not without consequences. The difference between an overvalued idea and a delusion may weight a differential diagnosis in the direction of a psychotic disorder over an obsessive compulsive disorder for which the treatments are quite different; the exemption for religious beliefs makes the identification of "religiosity" a special challenge; the delusion that proves to be de facto verifiable still may be a delusion as in the case of a jealous paranoic whose spouse has been driven to infidelity, and so on. (These concerns have been amplified and systematically explored in an excellent review by Spitzer.¹⁸)

There have been many approaches to these definitional concerns but most are agreed that any discussion must begin with Jaspers' systematic treatment found in his General Psychopathology (1923).2, 4, 15, 18, 20 (One exception is Berrios,3 who maintains that all the important distinctions can be found in the work of Chaslin as early as 1912.) Prior to this pivotal work, the notion of delusion was more or less assumed to be self evident. Contrasted with illusions and hallucinations, which were deemed the perceptual equivalents of delusions, the extraordinary claims of psychotic patients were taken to be prima facie evidence of their illness.6 As such, delusions were seen as the cognitive hallmark of madness. Categorization by delusional content had long been the extent of most attempts at further analysis so that erotomanic ideas were distinguished from lycanthropic ideas, and so forth. Indeed, these content-driven distinctions led to formal taxonomies that gave each delusional notion its own nosologic provenance: Pinel's celebrated predecessor William Cullen described under the "genus" of Melancholia eight "species" of partial insanity, which varied according to the subject on which the person raved.^{5, 16} There was little attempt to understand the varying degrees or kinds of delusion formation because it was the outlandish content that seemed to constitute the psychopathology not the structure that supported this content. But with Jaspers, a philosophical perspective was brought to bear on the problem and, in doing so, he revealed the full scope of the problem. Therefore, a review of Jaspers' account is a necessary starting point.¹¹

JASPERS' ACCOUNT OF DELUSIONS

Jaspers' concept of delusion only can be understood in the context of his phenomenologic approach to psychopathology.²⁰ The extended treatment of delusions occurs in the section entitled "Subjective Phenomenon of Morbid Psychic Life." Here, he explains that delusions are always *manifest* as judgments and thus "arise in the process of thinking and judging." "To this extent pathologically falsified judgments are termed delusions." (p 95)

He then goes on to describe the "external characteristics" of these false judgments: (1) subjective certainty, (2) incorrigibility, and (3) impossible content. Subjective certainty refers to the extraordinary conviction with which the delusional beliefs are maintained; incorrigibility denotes the imperviousness of these beliefs to counterargument; and the impossible content points to the fact that delusions always invoke representations

that are patently absurd or obviously erroneous.

Although this identification of external characteristics brought a new level of clarity to the concept of delusion, Jaspers recognized that these criteria were insufficient to distinguish adequately true delusions from a host of spectral notions that blurred the boundaries between normal psychic life and the pathologic. It is certainly true that counter-

examples to each of these external criteria easily are adduced.

The problem with both subjective certainty and incorrigibility is that there are many instances of normal belief that are evinced with equal zeal. The standard examples have to do with cultural and religious notions that are endorsed by a process of group validation despite the fantastic nature of many of these beliefs and the manifest absence of actual empirical validation. This serious threat to any effort to demarcate the normal from the pathologic has led to the standard exemption granted to religious beliefs by psychiatric lexicographers; Freud, on the other hand, refused to accede to this practical incongruity and held that religious ideas are nothing less than delusions.⁸

The problem with the falsity or impossibility of content is that many delusions may indeed prove to coincide with real events. Examples are Jaspers' jealous paranoic convinced that his unfaithful wife is having an affair; or, in the case of improbable contents such as being followed by the CIA, the extreme of impossibility may be too strong. Of course the idea of impossible and erroneous contents is meant to highlight the very real gulf that ordinarily separates a delusional idea from reality, but

from a definitional standpoint there are simply too many boundary cases.

Jaspers' view seeks to resolve these shortcomings by contrasting these external features with the phenomenologic properties that he regards as distinctive of delusional experience. In his view it is the psychologically irreducible nature of true delusions that distinguish them from all other delusional phenomena. True delusions are unmediated, direct experiences that arise in the subject as psychological givens. By contrast, other delusional phenomena always can be understood in terms of some concatenation of meaningful connections that link these secondary phenomena either to external life events or to other psychological elements that may include the primary delusional experience. Thus, delusions proper or primary delusional experiences must be understood on their own terms as direct manifestations of a morbid process.

These primary delusions include delusional atmosphere, sometimes referred to as delusional mood, delusional perceptions, delusional memories, delusional ideas, delusional awarenesses, and so on.^{2, 11, 15, 20} These experiences are psychologically irreducible in the sense that the delusional meanings that are present in them are indissociable from the intention that serves as their vehicle. In other words, the perception, memory, idea, and so on is not first given and then subject to a process of delusional (mis)interpretation; rather, the distorted meaning is given in the very ambience, percept, memory, idea. There *is* something strange in the neighborhood, the woman following you is an alien, the encounter one had with the automobile salesman *was* a pact with the devil, the

world is coming to an end (soon).

Over and against these unmediated delusional experiences are delusion-like ideas and overvalued ideas. Delusion-like ideas meet the external criteria for delusions—subjective certainty, incorrigibility, impossible contents—but they can be traced to preceding ideas or affects so that they fit into a web of meaningful connections. Thus, a delusional system is a hybrid of primary delusional experiences compounded by secondary elaborations, which Jaspers called the "delusional work." In cases of provocative life events for example, a bankruptcy— leading to understandable but morbidly excessive notions "because of me the whole economy is collapsing"— the subsequent delusions are similarly termed delusion-like ideas. Overvalued ideas similarly proceed from personality traits or meaningful life events and refer to extreme views tenaciously held that fall short of delusional departures from reality. These convictions are "strongly toned by affect" and may, therefore, meet the criteria of subjective certitude and resistance to counterargument.

What is of greatest interest in Jaspers' analysis, then, is that the critical juncture lies between primary delusions and these secondary phenomena that include delusion-like ideas rather than between all delusions regardless of their origins and overvalued ideas; that is, according to some notion of psychosis (departure from reality). This effort to highlight a subset of psychotic symptoms on phenomenologic grounds provided the basis not only for Jaspers' delimitation of true

delusions but also for subsequent efforts to identify pathognomonic symptoms for the increasingly prominent diagnosis of schizophrenia.

KURT SCHNEIDER

This further phenomenologic work was pioneered by Kurt Schneider whose contribution to the idea of delusion must now be considered.¹⁷ Schneider's work was influenced deeply by Jaspers and he supported the disjunction between primary delusions and other delusional phenomena. For Schneider, the key nosologic fault line divides the psychoses, which always proceed from morbid alterations in structure with consequent alterations in psychic functions, from abnormal variations of psychic life, which proceed from some experience. Thus, no matter how extreme these variations might be, insofar as they can be traced to experiential antecedents, they cannot properly count as a psychosis. True delusions are invariably a product of psychosis (ie, brain disease), whereas delusion-like ideas can be found in the group of abnormal

reactions to experience.

It should be noted that this view is deeply problematic insofar as it assumes a clear boundary between the somatic and the psychic. The interactivity of the vicissitudes of life and the fluctuations of somatic thresholds for symptom formation surely make Schneider's notion of psychosis difficult to embrace in theory. Moreover, from a practical perspective, the counterintuitive consequences of this position jeopardizes the feasibility of its implementation. For example, if slight alterations in mood or memory secondary to a stroke are to be described as psychosis, whereas the persecutory elaborations of a traumatic experience are not, then the application of this notion becomes purely nosologic and is robbed of any descriptive force it might otherwise contain. Nevertheless, Schneider's insistence that "true delusions" are distinctive and distinguishable from their psychologically motivated simulacra (ie, delusion-like ideas) proved to be a critical stage in his further characterization of the domain of true delusions.

Schneider focused on isolating a group of primary experiences that he asserted were peculiar to schizophrenic experience.¹⁴ In addition to special forms of auditory hallucinations (audible thoughts, voices arguing, voices commenting on one's actions), some of these experiences could be considered special forms of delusions. These included ideas of influence, thought insertion and withdrawal, thought broadcasting, and delusional perceptions. From a diagnostic point of view, these phenomena came to be regarded as symptoms "of the first rank" as opposed to second rank symptoms that could not be considered pathognomonic of schizophrenia.

The identification of "first rank symptoms" had enormous impact on the conceptualization of schizophrenia and contributed to the narrowing of its diagnostic horizons. Despite the failure of these delusions to prove indubitably pathognomonic for schizophrenia, first rank symptoms continue to hold some special diagnostic significance even in DSM-IV where they are treated as instances of "bizarre delusions." Bizarre delusions are accorded additional weight in the symptom criterion for schizophrenia such that their presence alone is sufficient to meet criterion A; the presence of nonbizarre delusions must be accompanied by at least one other symptom category (hallucinations, disorganized speech, disorganized or catatonic behavior, negative symptoms) in order to fulfill this requirement.¹

DELUSIONAL CONTENT

The notion of "bizarre delusions" underscores the fact that although delusions generally are recognized by the peculiarity of their claims some are stranger than others. DSM-IV contrasts one patient's claim that his internal organs had been removed and replaced by someone else's with another patient's suspicion that he was under surveillance by the police. Other examples of bizarre delusions are a man who believes himself pregnant, Capgras' delusion of doubles, nihilistic delusions, or the belief that one is controlled by radio signals from another planet. On the other hand, the idea that one is being followed, that one's spouse is having an affair, that one exudes a bad smell, that others are laughing or talking about one, that one suffers from an occult malignancy may all be treated as nonbizarre. In part, this distinction refers back to the issue of impossible content that Jaspers' described. Bizarre delusions are generally impossible, whereas nonbizarre delusions are generally improbable. Attempts to fully explicate this difference have not been entirely successful; in fact, a recent study found very poor interrater reliability in identifying delusions as bizarre with no difference between trainees and experts. Nonetheless, as noted previously, there may some diagnostic value in making this distinction.

The failure of the impossibility criterion opens the door to a host of claims that are deemed only improbable. It is here that the truth or falsity of these improbables makes an additional contribution. Clearly, there are instances where people are pursued by the Mafia, kept under surveillance by the police, suspect rightly that their spouse is unfaithful, and so forth. At first glance it may appear that the issue can be reduced to the verifiability of these beliefs: If indeed his wife is having an affair then he is not deluded; if she is not, he is deluded. Certainly, these facts are not irrelevant. On closer inspection, however, this method proves to be less helpful than might be expected. After all, there are genuine cases of reasonable suspicion that turn out to be mistaken. It is surely excessive to describe every false belief as delusional except perhaps in some colloquial sense as when Oliver W. Holmes derided Samuel Hahnemann's system in "Homeopathy and Its Kindred Delusions."10 Rather, it is the reverse situation that presents the more illuminating conundrum, namely when the contention in question is confirmed factually and yet we persist in referring to it as a delusion. The man's wife is

indeed unfaithful but his suspicion of her arises from another source entirely, for example, alcoholic paranoia, and is, therefore, both morbidly irrational and true. Evidently, a content that is both possible and true

may yet be deemed delusional.

These epistemologic elements that pertain to content are more or less general or definitional in nature. In addition to these elements, there are formal properties that are linked to content that also are believed to hold some heuristic significance. These properties are the mood congruence or incongruence of delusions, and the degree of systematization of delusions. Mood congruence refers to the degree to which a delusional content is consistent with its affective coloring. A manic patient who reports that he is the greatest genius of this or indeed of any century shows mood congruence. The hebephrenic patient who giggles as he relates that his mother has cancer shows incongruence. Assessing simply the presence or absence of a mood theme circumvents the problem of determining congruence in delusions for which no particular affect is appropriate. When a mood theme—depressive or expansive—is revealed in the content of delusions there is some evidence to suggest that the diagnosis is more likely to be an affective rather than a schizophrenic psychosis. In particular, grandiose delusions are more common in mood psychotic patients just as Schneiderian types seem more common in

schizophrenic individuals.12

Systematization has not been well studied. Despite its acceptance as a common modifier of delusion formation the significance of systematic versus unsystematic delusions is unclear. In one recent study, schizophrenics with a history of systematized delusions did demonstrate better general verbal ability and memory with some evidence of better premorbid cognitive functioning.¹³ Moreover, this neuropsychological finding held true across schizophrenic subtypes, suggesting some potential value for this distinction in dealing with the problem of subtype instability. From a clinical point of view, the degree of systematization has a bearing on the preservation of organized cognitive functioning as it requires that there be some recognition of the content of delusional ideas and the logical implications these might have for adjacent notions. In addition, the tendency to systematize is consistent with the idea of secondary delusions, or delusional work, to use Jaspers' phrase, as it is implausible that every element in an elaborate delusional system could be autochthonous in origin. One issue worth exploring is whether there is necessarily a primary delusional experience at the core of the system and whether or not there is some variation in the stability or tenacity of this central delusion compared with its offspring. Another implication has to do with whether or not a delusional system plausibly can be viewed as dynamically vacuous, that is, devoid of meaning, given the luxurious exfoliation of some specific content in contrast to a series of random, disconnected ideas.

This leads us to consider the most controversial issue regarding delusional content, namely its meaningfulness.⁴ Do delusions represent otherwise hidden conflicts, desires, preoccupations, fantasies, and so on?

Are these psychotic manifestations products of something beyond the psychosis itself, flowing from—if not actually the result of—antecedent experience, ideas, and affects? Does it make sense to interpret delusional contents or are they simply grotesque and misshapen manifestations of disease? To some extent these will remain unanswered questions but it is worth recognizing that they have rather substantial clinical implications.

Both Jaspers and Schneider believed that it was crucial to disentangle the primary delusional experience from any delusional products arising out of psychological antecedents. One reason for this was the need to establish against any psychological determinacy the view that there exists a subset of delusional phenomena that are direct expressions of a disease process. Thus, from the standpoint of psychic causality, there are really two questions: first, can such a morbid process find expression in experience unmediated by psychological factors?; and, second, do the contents of secondary delusions (delusion-like ideas) bear

meaningful connections to the whole of psychic life?

The first question asks whether or not a primary delusion—"my thoughts are not my own"; "they want to destroy me because I am the savior of the world"-expresses anything beyond the fact that there is some morbid process at work. In other words, do these reports by psychotic individuals provide us with clues about the person, or only about the illness? The frequency with which certain themes recurjealousy, persecution, grandiose ideas, somatic ideas—long has provided a basis for subtyping delusions but this alone fails to tell us whether these themes are biographically pregnant or simply general categories of human interest gone awry. More telling is the frequency with which certain experiences recur that are otherwise discontinuous with normal experience (for example, Schneiderian delusions of influence). These reports seem to indicate at least the possibility for abnormal contents to occur in much the same way that formed visual hallucinations occur in certain cases of temporal lobe seizures. Thus, such delusions must be identified on the basis of the form in which they appear, rather than from their contents per se.

The second question is undoubtedly more difficult to settle satisfactorily. Suppose in the wake of an automobile accident in which a woman's husband and child are killed she develops the conviction that she caused their deaths; later, she comes to believe that she is evil and must be destroyed, and, therefore, attempts suicide; finally, she is improved after a course of electroconvulsive therapy. The progression of meanings here is fairly straightforward, and at the level of manifest content it seems reasonable to assume that the delusion was neither random nor empty of significance. The deeper problem contained here is whether the delusion of guilt precipitated by the traumatic psychosis indicates the existence of some pre-existing dynamic—unconscious guilt, a forgotten wish to kill her father, or even the more proximate fantasy of divorcing her husband. The alternative is simply that the psychosis creates de novo a delusion that incorporates in distorted form the affects naturally arising out of the trauma. Common sense suggests that both

scenarios are possible and that individual cases may differ. Whereas such secondary delusions may or may not invoke the whole of psychic life to explain their specific contents, it is the form in which these contents appear, the delusional structure that sustains them, which must command our attention.

DELUSIONAL FORMS

Although the strange, outlandish, or incomprehensible content of delusions is the feature that superficially engages one's attention, and indeed has dominated clinical theory, it is clear that these features alone are insufficient to understand what makes a delusion. Jaspers recognized this fact and sought a solution by linking primary delusions to their psychological irreducibility. 11, 18, 20 Nevertheless, Jaspers continued to view the delusional experience as a form of belief. Similarly, Schneider felt that the formal properties of delusions held the key to their diagnostic significance; thus his emphasis on the diagnostic importance of delusional perceptions relative to delusional notions was tied to his view that the delusional perceptions were "two-linked" rather than "onelinked" in structure. By "two-linked" Schneider meant that delusional perceptions conjoin a veridical percept with a delusional (mis)interpretation. Delusional ideas or notions lack this first stage and must be identified from the content alone together with the other external characteristics. Even when the formal properties of this content-congruence, systematization, irreducibility—are considered, one is still held to the litmus test of establishing deviant content.¹⁷ This analysis, which has since proved contradictory and unconvincing, provided not only for the recognition of delusional perceptions on purely formal grounds irrespective of content, but also served to acknowledge that the clinical process of diagnosing beliefs is inherently elusive.

The guestion whether or not delusions are best treated as forms of belief has not been addressed seriously until quite recently. Although this question is primarily of philosophical interest the outcome may have implications for etiology and treatment. Berrios, for example, takes the view that delusions are primarily "speech acts" that lack the necessary structural elements required to count as beliefs; he regards them instead as "masqueraders" whose purported content is essentially meaningless. "Delusions are likely to be empty speech acts, whose informational content refers to neither world nor self. They are not the symbolic expression of anything. Its 'content' is but a random fragment of information 'trapped' in the very moment the delusion becomes crystallised." If this is so, then any psychodynamic account of delusion formation or prescription for treatment is doomed to irrelevance. In addition, if the essential character of a delusion lies in its defective structure or "form," then the truth or falsity of its content is similarly irrelevant since whatever attributions it invokes are effectively random.

Manfred Spitzer18 also has questioned the traditional position of

defining delusions as a subset of beliefs but for somewhat different reasons. He points out that "this notion does not add anything to the definition of delusions, but may give rise to misleading conceptions about them." He contrasts the subjective experience of *believing* from *knowing* and asserts that delusional patients' sense of conviction and certainty are more consistent with the experience of knowing. From the standpoint of clinical diagnosis, the patient is rarely queried about his beliefs; rather the patient presents delusions as statements of fact that are subsequently judged delusional by the interviewer. As a result, "from the subjective point of view, delusions are not beliefs, and from the objective point of view, the notion that delusions are some form of beliefs is true by definition but has no empirical meaning, that is to say, does not properly reconstruct what happens clinically when delusions are diagnosed." ¹⁸

In attempting to finally secure a formal definition for delusions that avoids the shortcomings of Jaspers' external criteria, that encompasses delusions generally, not only those that are primary and irreducible, that recognizes the difference between normal beliefs and delusional utterances, and that takes account of the highly referential character of most delusional material, Spitzer has proposed an interesting and unique solution. He argues that delusions are essentially about external reality, but that the subjective certainty and incorrigibility associated with delusional assertions are not generally applicable to statements about the external world. Instead, Spitzer maintains that this kind of subjective certitude is ordinarily found only in connection with our claims about our own mental states. That is, because we have "private access" to our mental states, and because our mental states are coextensive with our experience of them, we are entitled to insist that our knowledge of these states is unassailable. The delusional patient, however, "extends his "epistemological asymmetry" in an inadmissible way to intersubjectively accessible facts"; that is, to statements about the external world. In other words, the delusional individual insists on the same sort of proprietary relationship to external reality that is ordinarily found only in relationship to internal mental experiences. Therefore, it is not surprising that the delusional world becomes imbued with meanings that are intensely private and referable to the experience of the patient.

This is a very different view from Berrios' hypothesis of delusions as "empty speech acts." Certainly, some delusions such as those enmeshed in the "word salad" of hebephrenics may indeed be entirely random. The "disorders of experience" that comprise Schneider's first rank symptoms, however, may, in fact, be descriptive of certain characteristic morbid products of psychotic illness. As a result, these primary delusions may not be delusions at all insofar as they actually correlate to the contours of these subjective experiences. Of course, insofar as the patient attributes these mental effects to forces arising in the external world they remain deluded. One strength of Spitzer's analysis is that it encompasses both primary and secondary delusions, which may be

pregnant with meanings that are not only nonrandom but are actually disclosive with respect to particular dynamic elements in the patient's history.

SUMMARY

Delusions traditionally have been considered as fixed, false beliefs, born of morbidity. Whereas this definition serves to orient the clinician to the phenomena at hand, each element breaks down under scrutiny. It has been shown that delusions are not necessarily false, although in some sense they are discordant with reality. When delusions coincide with actual events their judgments can be shown to be independent of this evidential basis; when they refer to disorders of experience, such as first rank symptoms, the experience usually contains a distorted meaning. The supposition that delusions are a variety of belief has itself been questioned. On the one hand, they do not always refer in a meaningful way to anything, or when they do they fail to function as evaluative judgments; instead, delusions are experienced subjectively in ways that are characteristic of knowing rather than believing. On the other hand, delusions are not ascertained clinically by surveying the patient's belief system; rather their failure to achieve the status of objective knowledge leads to the post hoc relegation of delusions to the epistemologic waste basket of beliefs. To treat delusions as necessarily the product of morbidity is essentially tautologous insofar as delusions are, by definition, pathologic; that is, as defective judgments delusions are not simply erroneous, they are disordered. Finally, the fixity of delusions is an empirical matter and varies widely. Underlying this perceived intractability, however, are the subjective certainty and incorrigibility that Jaspers identified and which Spitzer has recast in the form of "epistemological asymmetry" misapplied to external reality. Although delusions typically have been recognized and categorized according to their manifest content, these formal considerations are crucial to understanding the nature of delusions.

References

 American Psychiatric Association: Diagnositic and Statistical Manual of Mental Disorders, ed 4. Washington, American Psychiatric Association, 1994

2. Berner P: Delusional atmosphere. Br J Psychiatry 159:(suppl 14):88-93, 1991

Berrios GE: Delusions as "wrong beliefs": A conceptual history. Br J Psychiatry 159(suppl 14):6–13, 1991
 Brockington I: Factors involved in delusional formation. Br J Psychiatry 159(suppl

14):42-45, 1991

5. Cullen W: Synopsis and Nosology. Hartford, N Patten, 1792

6. Esquirol JED: Mental Maladies (1845). New York, Hafner, 1965

Flaum M, Arndt S, Andreasen N: The reliability of "bizarre" delusions. Compr Psychiatry 32:59–65, 1991

- Freud S: The future of an illusion (1927). In Strachey J (ed): Standard Edition, vol 21. London, Hogarth, 1961
- 9. Hinsie L, Campbell R: Psychiatric Dictionary. New York, Oxford University Press, 1977
- Holmes OW: Homeopathy and Its Kindred Delusions in Medical Essays of Oliver Wendell Holmes. Boston, Houghton, 1883
- 11. Jaspers K: General Psychopathology (1923). Chicago, University of Chicago Press, 1963
- Junginger J, Barker S, Coe D: Mood theme and bizarreness of delusions in schizophrenia and mood psychoses. J Abnorm Psychol 10:287–292, 1992
- Kremen W, et al: Systematized delusions and neuropsychological function in paranoid and nonparanoid schizophrenia. Schizophr Res 12:223–236, 1994
- 14. Mellor CS: First rank symptoms of schizophrenia. Br J Psychiatry 117:15-23, 1970
- 15. Mellor CS: Delusional perception. Br J Psychiatry 159(suppl 14):104-107, 1991
- 16. Pinel P: Treatise on Insanity (1806). Birmingham, Gryphon, 1983
- 17. Schneider K: Clinical Psychopathology (1958). New York, Grune and Stratton, 1959
- 18. Spitzer M: On defining delusions. Compr Psychiatry 31:377–397, 1990
- 19. Stedmans Medical Dictionary, ed 22. Baltimore, Williams and Wilkins, 1972
- Walker C: Delusion: What did Jaspers really say? Br J Psychiatry 159(suppl 14):94– 103, 1991

Address reprint requests to

Mark J. Sedler, MD
Department of Psychiatry and Behavioral Science
School of Medicine
SUNY at Stony Brook
Stony Brook, NY 11794