

THE EXPERIENCE OF SIGNIFICANCE

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Introduction

During the last two years I have been one of two people with a clinical training (clinical psychology) who has been available to see individuals who have contacted Professor Morris at the University of Edinburgh seeking help as a result of experience which they perceive as being relevant to parapsychology. The only criterion that we established for offering some sort of clinical counseling is that the person must report a sense of unhappiness or distress resulting from their experience.

We have counseled a number of people living locally, but in most of the cases the person has lived at a considerable distance from Edinburgh. Initially, we attempt (by telephone or correspondence) to analyze the experience for psi-relevance. If it does seem relevant then we advise such people to seek advice from parapsychologists known to us in their area. When it seems unlikely to be psi-relevant we explore the experience with the individual in an attempt to place the experience in some normative framework which may help the person to assimilate the experience into normal experience (e.g. hypnogogic or after-image experience). If we believe that there are psychopathological implications, we have attempted to steer the person to an appropriate source of counseling, either a mental health professional or religious counsellor (preferably with a parapsychological interest) or to their general medical practitioner.

This paper arose out of a feeling of disquiet in the author that while the behavior of many of these individuals readily justified the DSM-III-R diagnosis of schizotypal personality disorder, it could be argued that their social difficulties, to a greater or lesser degree, arose from their unusual, eccentric, view of the world, which in turn seemed to be the result of unusual experiences. The possibility that these experiences might have a basis in reality, albeit one that acknowledges the possibility of psi-mediated events, raises questions about how such in-

dividuals might be helped to deal with such experiences. This paper, therefore, explores the hypothesis that the effect of genuine psi experiences, for certain individuals, may be the development of delusional systems. Because delusions tend to have social consequences, this could result in a stigmatization of the individuals.

The Formation of Delusions

Most of the individuals who contact us in distress seem to want confirmation of a parapsychological "explanation" for their experience. Usually they claim that such an explanation is the only type which fits the facts of their experience. They seem to believe that, as we are known to have an interest in this area, we are the only people who can help them. In responding to such approaches one of my concerns has been the possible effect of appearing to collude with a delusional system, even in the mildest way by showing an interest. Particularly when communicating with the person on the telephone, the professionally "safe" statement might be (couched in sympathetic terms) to the effect that "although we are interested in such experience, our knowledge about the nature of such experience is so rudimentary that we are not yet in a position to comment on the value of any parapsychological explanation". Is this all we can or should say?

An influential theory for the development of delusional thinking has been proposed by Maher and Ross (1984) and further discussed by Maher (1988). Maher develops a classification of delusions first proposed by Southard (1916) in which delusions might be classified in accordance with the moods of grammar that their form reflected.

Grammarians of his day distinguished between four moods in which a sentence might be formed in English: the subjunctive, the indicative, the imperative and the optative. The first of these, the subjunctive, expresses a proposition conditionally, that is, with the implication of truth, but not the certainty of it—in brief, in a form or mood typical of empirical science. (Maher, 1988, p. 18)

Southard suggested that delusions fall into two categories: the first characterized by subjunctive statements, and the second by imperative (delusions of grandeur) or optative (wish fulfilling delusions of bizarre or fantastic nature) statements. Delusions were not associated with the indicative mood.

In brief, Maher's model suggests that:

1. Delusional thinking involves cognitive processes in which the logic is the same as those involved in the formation of non-delusional beliefs.

2. Delusions are theories that provide meaning for empirical data obtained by observation.

3. Some observations are both surprising and puzzling, and therefore significant.

4. Significant puzzles *demand* explanations.

5. A satisfactory explanation results in marked feelings of relief and reduction of tension.

6. Subsequent data that contradict the explanation create cognitive dissonance. Data that are consistent with the explanation reduce dissonance and are given particular status in the explanation.

7. Furthermore, theories will be judged delusional by others if (a) the judges do not have access to the original, puzzling, data, or (b) the data are available but do not appear puzzling or provide the same sense of significance to the judges.

8. The experience of surprise-significance is assumed to have a neural locus in the C. N. S., and it is proposed that various neuropathologies (outlined in stage 9) effect “spurious” experiences of significance in the deluded patient, which results, as in normal people—including scientists—in extreme resistance to giving up the preferred theory.

Maher’s psychopathological model for the development of delusions rests heavily on both the notion of a neural locus, and an arousing function, for the experience of “significance” (increased alertness and tension—“search mode”) produced by the puzzling events. Importantly, he claims that puzzles *demand* explanations, which, if satisfactory, produce the subsequent feelings of relief and reduction in tension. The concept of relief from noxious stimuli, is familiar to psychologists as negative reinforcement which increases the frequency of the contingent behavior. If it can be shown that the tension and uncertainty associated with the puzzlement are noxious, then indeed an understandable process for the development of delusions, similar to that for compulsive behavior and avoidance behavior in anxiety states (i.e. anxiety reducing) is complete.

While the description of the neurophysiology related to the experience of significance is limited, there is a relatively consistent body of electrophysiological evidence which suggests that the P300 component of the event-related potential is associated with (a) the phenomenological experience of “meaningfulness” or “significance,” and (b) reflects the theoretical concepts of the “search mode” or “orienting response/reflex.” Polich (1989) discusses his evidence for suggesting that the same fundamental mechanisms underlie both constructs because both “are thought to result from a mismatch between external events and an internal neural model (of the environment)” (p. 20). It is typically

elicited by an "oddball" type of paradigm, when a train of identical stimulus events is interrupted by a single different stimulus. The P300 component is a large (ca. 10–20 V), positive-going potential with a latency of approximately 300msec. when elicited with a simple auditory discrimination task in young adults, and is of maximum amplitude over the midline central and parietal scalp areas. Polich notes that "while the origins of the P300 are still being sought, depth-electrode recordings and magnetic field studies in humans suggest that at least some portion of the P300 is generated in the medial temporal lobe, most likely including the hippocampus and amygdala structures—brain areas associated with learning and memory." Recent evidence (Le Doux, 1989) suggests that these two structures (the limbic system), once thought also to be jointly responsible for the regulation of emotion, may fulfill cognitive (hippocampus) and emotional (amygdala) functions independently, and in such a way that an emotional reaction may be elicited prior to a cognitive one. As yet, I can find no explicit studies of the effect of emotional significance of stimuli on the P300 component. If the emotional content of stimuli could be shown to affect characteristics of the P300 component, particularly by increasing resistance to habituation, then this might lend support to Maher's contention that puzzles or surprises demand explanations.

To test the significance of the P300 component in the development of delusional beliefs, it would be possible, in theory, to compare the psi-beliefs of a group of individuals who have abnormal P300 reactions to novel stimuli, such as the abstinent sons of type 2 alcoholic fathers (80% of whom have abnormal P300: Begleiter, Porjesy, & Behari, 1987) with the beliefs of a suitable control group, such as the abstinent sons of type 1 alcoholic fathers. With large enough groups, and assuming a random distribution of psi-experience, the beliefs of the groups should be different if the P300 component does represent the experience of significance, and this experience is important in the formation of beliefs.

Assuming that Maher's model is veridical, what are the implications for parapsychology, which is dealing with data which are not necessarily available to all, or indeed to anyone other than the subject? For "normal" individuals, if one or more psi experience results in stage 3 in Maher's model (i.e. one is puzzled by observations which are surprising, and therefore significant), what is to prevent the development of a "delusional" system? This is a question implicit in the criticism of the model made by Chapman and Chapman (1988).

The Chapmans present evidence from their longitudinal study of 162 college students who scored at 2.0 or more standard deviations above the mean on two questionnaires, their Perceptual Aberration

Scale and Magical Ideation Scale. Unfortunately for our interests, which are the subject of the second scale, "because the two scales correlate around .70 and identify similar subjects, we treat high scores on either of the two scales as a single group. . . ." (p. 168). Half these subjects qualified for a DSM-III diagnosis of schizotypal personality disorder. Using a modified version of the Schedule for Affective Disorders and Schizophrenia-Lifetime Version (Spitzer & Endicott, 1977) they re-examined their subjects (and 158 controls) 25 months later. Three of the subjects, but none of the controls, had received "treatment for psychosis." The direct relevance of this study to the present hypothesis is difficult to determine, as the symptoms discussed in the paper are predominantly of the auditory hallucination (perceptual aberration) type. With reference to the Maher model the Chapmans state: "If delusions are reasonable interpretations of anomalous experience, subjects with similar experiences should have similar beliefs" (p. 174). I would suggest that this is illogical, ignoring as it does the effect of prior idiosyncratic knowledge and experience on the interpretation of the experience. Having set up what is, in my opinion, a "straw man," they knock it down with this interesting observation:

We found some cases in which delusion was a clear result of an anomalous perceptual experience because acceptance of the veridicality of the experience demanded, or almost demanded, a delusional belief. Other subjects reported delusional or aberrant beliefs that had no apparent relationship to any unusual experiences. Still others reported delusions that had some relation to their unusual experiences, but yet were not necessary, or even reasonable, interpretations of those experiences. (p. 174)

The first and third categories are consistent with Maher's model, but the second would be a clear contradiction of it. However, one might question how the authors could be certain that second group had not, in the past, had some such experience.

The Chapmans' own formulation for the genesis of delusions is "that delusional patients focus more often on stimuli that are strong or prominent by normal standards, neglecting weaker stimuli" (p. 180). As they themselves point out "there is a danger of circularity in this formulation in that we infer a difference in strength of stimuli from choice of stimuli to which schizophrenics respond" (p. 181). It is noticeable in the above that the term "patient" and "schizophrenic" is used, suggesting a relevance to a more clinically serious part of the delusion continuum (if it is such) than that addressed in the major study they report. Leaving that aside, the concept of strong and weak stimuli

leads to questions of definition of stimulus strength. The Chapmans define this in terms of "a person's own emotional responses to the environment," "immediate," and "personally salient by normal standards." This sounds very similar to Maher's concept of "significance."

The Chapmans conclude their paper with the following:

In summary, delusions of psychosis are often more deviant versions of aberrant beliefs that were held by patients before they became psychotic. The relationships between delusions, anomalous experience, and thought disorder can reasonably be construed as ones of mutual augmentation. Among patients who have all three of these abnormalities, each of the three seems to enhance the other two. None of the three uniformly occurs first in a causal sequence. None of the three seems necessary for the occurrence of another; instead, all three are probably direct expressions of the psychosis. (p. 182)

To summarize the above discussion: in the Maher model anomalous experience leads by reasonable logic to delusional beliefs, which may in turn lead to psychosis; in the Chapmans' formulation both, along with thought disorder, are the symptoms of psychosis and may occur alone or in any combination with the others. That having been said both theories appeal to a concept of "significance" or "salience" as an explanation of delusional focus.

My criticism of the Chapmans' formulation, and to an extent the Maher model, is that they construe the anomalous experience happening to people without any kind of previous unusual experience or thought. Understandably, this appeal to previous experience can be viewed as an unhelpful reductionist approach. In practical terms, however, it may be that beliefs based on psi-mediated experiences involve early (possibly childhood) beliefs, interests, and experience in what constitutes reality. If, as parapsychologists, we are becoming increasingly confident about "what psi is not" (Morris, 1986) it may be incumbent upon us to disseminate this information more widely, countering some of the more harmful effects of childrens' (usually harmless?) preoccupation with witches, ghosts, etc..

What variables are likely to affect the experience of significance? Intuitively, without any real evidence (other than high levels of anxiety in relevant clinical states), I suggest that one important factor may be the degree of generalized anxiety. It is likely that the experience of significance (of increased arousal), in individuals with already high levels of motor tension, autonomic activity, vigilant scanning and apprehensive expectation, and who have already learnt to use avoidance measures to control anxiety, will make more likely the development, and mainte-

nance, of a "delusional" explanation for a disturbing anomalous experience. Using measures such as the State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970) it would be possible to test for a positive correlation between the trait value and the fixity of psi-related belief. The high levels of autonomic activity, vigilance and apprehension that a high anxiety trait score would imply should increase the value of the experience of significance as a reducer of cognitive dissonance and uncertainty. Although there is reasonable evidence for a positive correlation between scores on manifest anxiety (but not Cattell's anxiety factor) measures and ESP performance (Palmer, 1977), I can find no studies investigating a relationship between manifest anxiety and the fixity of (sheep/goat) belief.

In counseling individuals reporting distress after psi experiences, one might wish to pay particular attention to those individuals who report high levels of generalized anxiety prior to the experience, as such levels of anxiety may promote the heuristic necessity of the explanations, delusional or otherwise.

Social Consequences

In one sense it could be argued that there is no need to be concerned about the development of specific and circumscribed delusions as a result of psi experiences. In most societies there is an apparent tolerance of eccentricity providing there is no attempt by the individual to involve others in the delusion. However, as Rush has pointed out, a "notable characteristic of psychic experiences is their strangeness . . . (frequently) together with strong emotions of awe and sometimes terror" (1986, p. 5). Particularly if the psi experience is of a type which demands communication to others (e.g. crisis telepathy, or precognitions of crisis), then there is likely to be an urgency or proselytizing quality in the subsequent behavior which may reduce the tolerance shown to the individual. At worst, individuals who develop strong beliefs of this type may become socially isolated.

It is this possible consequence of delusions formed on the basis of psi-related experience that concerns me most. Many such individuals report a strong need to talk about such experiences. This, combined with the fear of the irrational or insanity common in many of their potential audience, will almost certainly affect their social contacts, and possibly their social behavior.

Schizotypal Personality Disorder

The holding of "bizarre" beliefs and reporting recurrent "illusions" are central to a DSM-III-R diagnosis of schizotypal personality disorder,

as opposed to the otherwise somewhat similar criteria for a diagnosis of schizoid personality disorder (or indeed Asperger's Syndrome, which, it has recently been suggested is a distinct syndrome, separate from the other two: Tantom, 1988). It is suggested by the DSM-III-R Manual that 3% of the population have this disorder. The criteria for schizotypal personality disorder in DSM-III-R mean that three out of the nine criteria (only five of which need be indicated to make the diagnosis, providing the criteria for schizophrenia are not met) are directly relevant to psi experience. These are: (1) odd beliefs or magical thinking, for example, superstitiousness, clairvoyance, telepathy, "6th sense," "others can feel my feelings" (in children bizarre fantasies or preoccupations); (2) ideas of reference (excluding delusions of reference); and, (3) unusual perceptual experiences e.g. illusions, sensing the presence of a force or person not actually present (e.g. "I felt as if my dead mother were in the room with me). Four of the other six criteria are based on social behavior, namely: (4) social isolation; (5) constricted or inappropriate affect (e.g., aloof, cold, rare reciprocation of social gestures); (6) suspiciousness or paranoid ideation; (7) excessive social anxiety. The last two criteria concern mannerisms: (8) odd or eccentric behavior or appearance, and; (9) "odd speech" (without loosening of association or incoherence) for example, speech that is digressive, vague, overelaborate, circumstantial, or metaphorical.

I would not wish to argue that these criteria, or indeed the clinical concept of schizotypal personality disorder, are not useful, but that a differential loading, giving more weight to the social and mannerism criteria, may be required. To illustrate this point, I will compare two examples of referrals to me. The first is of a man complaining about strong sensations of being caressed erotically by "something or somebody independent of me." On a superficial assessment this man impressed me as being normal in every other way. He was middle-aged, intelligent, articulate, well dressed with an apparently open social manner. He was genuinely puzzled by the experiences and was open to the interpretation offered by a psychiatrist, to whom he had been previously referred, that these were probably psychogenic in origin, the result of some marital difficulties (of a not too extreme nature) which he reported. He had contacted us in the spirit of open intellectual curiosity to see if another, psi-related, explanation was possible. He reported no other experiences which could be construed as anomalous. In the course of a long discussion he gradually disclosed that: (a) he was in extended and acrimonious debate with a number of individuals, and jokingly referred to occasional feelings of paranoia; (b) he complained of extreme levels of physical tension a great deal of the time (excessive sweating etc.); and, (c) he mentioned that his wife complained that they

had no social life. As he was disclosing these facts, two other behaviors became apparent: (d) his verbal behavior, which initially had appeared to be concise and articulate, became discursive to the point that he apologized for it but could not control it; and, (e) an odd mannerism which was both a mild torticollis and blepharism became increasingly evident.

The second example is a woman in her late twenties who contacted us with complaints about experiences which disturbed her and which had "followed" her when she moved house. She complained that she both felt and fleetingly saw, "out of the corner of my eye," presences which moved rapidly about the rooms she occupied. On one occasion, which particularly disturbed her, she saw a vivid green face of a threatening nature appear "out of a wall." This lady spoke in a flamboyant, excited, manner, frequently not completing a train of thought. She had many friends, and an apparently stable relationship with the boyfriend with whom she lived. She dressed in an unusually striking, possibly eccentric, way. She maintained with considerable vehemence that she had experienced many and varied psi-related events throughout her life. She knew that on occasions she was clairvoyant, she frequently knew what people were thinking before they spoke, and that she could project her thoughts to others, particularly her boyfriend. She believed that apparently coincidental events, such as the appearance of an unusual word on television, in the paper, and in a friend's vocabulary, all on the same day, was "meaningful." According to the DSM-III-R, both these individuals show behavior which fulfill the formal criteria for a diagnosis of schizotypal personality disorder. Nevertheless, I suggest that while many clinicians might agree that this diagnosis is a useful formulation in the first example, I doubt whether many would want to apply it to the second example. However, had the lady in the second example shown any evidence of being socially withdrawn then, again, this formulation might appear more useful. That she did not was due, in my estimation, to her expressed attitude of "not giving a damn what other people thought." These personality factors, of assertive self-reliance, may be ones which others, with similar experience, do not possess.

The suggestion that the DSM-III-R criteria for schizotypal personality disorder, applied without some differential loading, could lead to stigmatizing individuals who have experienced genuine psi-related events, might be viewed as a "straw man": an idea which has no relevance to everyday clinical practice. Clinicians with whom I have discussed this proposition tend to dismiss it, saying in effect that they would know from experience when it was relevant and when it was not. If pressed,

however, they have difficulty in articulating how they would do this in practice. There is evidence that schizotypal personality disorder is associated with schizophrenia. The four criteria which are commoner in the relatives of schizophrenics than in the relatives of controls are emotional detachment, unsociability, suspiciousness, and odd speech, but not the liability to perceptual illusions or "magical thinking" (Kendler, 1985). If the schizotypal personality disorder is applied to an individual primarily on the basis of their beliefs and experience, rather than their social behavior, this may have implications for their employment possibilities, treatment, and most importantly their view of their own psychological well-being. It would be as well to avoid such stigmatization.

It would be interesting to make a comparison of individuals diagnosed as having an schizotypal personality disorder on the basis of psi-related beliefs and experiences with a group so categorized principally on social or manneristic criteria. Are the groups demonstrably different in other important ways (such as Maher's suggestion that one could look for associations between personality attributes and delusions of particular logical structure), would there be group differences in the differential diagnoses, or in the principal diagnoses if the diagnosis of schizotypal personality disorder was denied to the assessing clinicians?

Conclusions

This paper has looked at both Maher's model and the Chapmans' formulation of the development of delusional beliefs. It is suggested that they are very similar propositions, both of which rely on the experience of significance or stimulus strength. A case, based on the Maher model, can be made that experiencing anomalous events of a psi-related kind may produce, in otherwise normal individuals, beliefs and social behavior which could result in such individuals being stigmatized by the clinical diagnosis of schizotypal personality disorder, with the association with schizophrenia that this implies. It has been suggested that certain individuals, particularly young people with high levels of generalized anxiety and/or low self-reliance, are at particular risk.

What are the implications of this view for clinicians, sympathetic to the possibility of psi, assessing or advising individuals who report distress as a result of an anomalous experience(s)? Our difficulty, as individuals with a neutral-to-positive belief in their veridicality, is that those we counsel have to exist in an environment which is not tolerant of such belief. The Chapmans comment that their Magical Ideation Scale

is designed to measure belief in forms of causation that by conven-

tional standards in our culture are invalid, such as thought transmission, psychokinetic effects, precognition, and the transfer of psychic energies between people. The Magical Ideation Scale has obvious face validity for identifying persons with delusional beliefs . . . (p. 168).

Quis custodiet ipsos custodes?

Our specialist interest in, and knowledge of, "what psi is not" should be helpful to us and our clients. Indeed it could be argued that this information should be more widely communicated to all clinicians dealing with apparently deluded individuals. If the hypothesis examined in this paper has substance, it increases the importance of the clinical investigation into the way the person normally forms beliefs, or tolerates uncertainty. Does the person rely solely on the emotional reaction of "visceral certainty" and, if not, how does the person test the veridical value of such experiences? It is possible that the single most important way in which such an individual can be helped is by offering him or her strategies for testing the truth of the experience, strategies based on "what psi is not." This may involve a detailed discussion of the relevance of counter-evidence, does it clearly apply, possibly apply, or not apply at all? Can predictions be made on the basis of the belief or counter-evidence? In his concluding comments, Maher (1988) comments that "early detection of developing delusions, and the presentation of counter-evidence, before the 'solution-relief' experience has been reached, would seem to be more likely to succeed than later interventions" (p. 31). I will not go further into this aspect of the problem because I am aware that other speakers at this conference have given considerable thought to the ways in which people may be helped to an accommodation with what appear to be genuine psi phenomena. This paper may have emphasized the need for such clinical guidelines.

REFERENCES

- Begleiter, H., Potjesy, B., & Behari, B. (1987). Auditory brainstem potentials in sons of alcoholic fathers. *Alcoholism: Clinical and Experimental Research*, 11(5), 477-480.
- Chapman, L. J., & Chapman, J. P. (1988). The genesis of delusions. In T. F. Oltmanns & Maher (Eds.), *Delusional beliefs* (pp. 167-183). New York: John Wiley & Sons.
- Kendler, K. S. (1985). Diagnostic approaches to schizotypal personality disorder: A historical perspective. *Schizophrenia Bulletin*, 11, 583-553.
- Le Doux, J. (in press). *Cognition and Emotion*.
- Maher, B. A., & Ross, J. S. (1984). Delusions. In H. E. Adams & P. B. Sulker (Eds.), *Comprehensive handbook of psychopathology*. New York: Plenum Press.
- Maher, B. A. (1988). Anomalous experience and delusional thinking: The logic of explanations. In T. F. Oltmanns & B. A. Maher (Eds.), *Delusional beliefs* (pp. 15-33). New York: John Wiley & Sons.
- Morris, R. L. (1986). What psi is not: The necessity for experiments. In H. L. Edge,

- R. L. Morris, J. Palmer & J. H. Rush, *Foundations of parapsychology* (pp. 70–110). Boston: Routledge & Kegan Paul.
- Palmer, J. (1977). Attitudes and personality traits in experimental ESP research. In B. B. Wolman (Ed.), *Handbook of parapsychology* (pp. 175–210). New York: Van Nostrand Reinhold.
- Polich, J. (1989). Habituation of P300 from auditory stimuli. *Psychobiology*, 17(1), 19–28.
- Rush, J. H. (1986). What is parapsychology? In H. L. Edge, R. L. Morris, J. Palmer, & J. H. Rush, *Foundations of parapsychology* (pp. 3–8). Boston: Routledge & Kegan Paul.
- Southard, E. E. (1916). On the application of grammatical categories to the analysis of delusions. *The Philosophical Review*, 25, 424–455.
- Spielberger, C. D., Gorsuch, R. L., & Lushene, R. E. (1970). *The State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Spitzer, R. L. & Endicott, J. (1977). *Schedule of affective disorders and schizophrenia—lifetime version (SADS-L)*. New York: New York State Psychiatric Institute.
- Tantam, D. (1988). Lifelong eccentricity and social isolation. I: Asperger's syndrome or schizoid personality disorder. *British Journal of Psychiatry*, 153, 783–791.

DISCUSSION

HARARY: I think the focus on social skills and social relationships is really essential. Sometimes I have the idea that if you think of those little scratch and sniff cologne ads, if you scratch and sniff the psyches of most normal people, and you really get into some of what they think about reality, you will find there is some pretty strange stuff going on just beneath the surface. But there is a certain skill in knowing when to shut up, and when to not share your inner self with other people. Maybe the people who are diagnosed as having real problems are the people who don't know when not to tell people, particularly psychiatrists, what is really going on in their heads. I found when I was studying diagnosed schizophrenic patients in a mental hospital in North Carolina, a lot of what was described in their charts as being wrong with them and with what they thought about reality was similar to the ideas of a lot of people outside of the hospital who were footloose in society. The problem was that the psychiatric patients couldn't keep their thoughts to themselves and could not control whether or not they acted on those thoughts at a particular time. In fact, in Maimonides Medical Center the psi laboratory was in the basement and the inpatient psychiatric ward was on the second floor. In the elevator, I would often see a lot of inpatients and I would say, "Good morning" to whomever happened to be in the elevator but they would often ignore me and be off into another world. When you talked to them, often they didn't make a lot of sense. The surprising thing was that many of those non-communi-

cative, incoherent people were the psychiatrists who were working there rather than the patients. One more comment, and that is, some people try to rationalize their withdrawal from other people, their inability to relate, on the basis of trying to describe their own strange reality. For example, they might say, "I'm really a special, unusual person and that's why other people don't like me." So it's not that they withdrew after having certain experiences, it's that they were trying to explain why they couldn't connect with other folks in the first place. Does that make some kind of sense?

TIERNEY: Yes, indeed. The group that bothers me is the people who have had one experience and who contact us saying, "What is this?" My concern is that unless they are dealt with sympathetically, they may develop a delusional system. Now, I'm quite willing to argue the case that this is highly unlikely, that in fact, the important thing here is the psychosis and the delusions that result in psychosis. But I just wanted to explore the possibilities. Are there any formulations in the literature which would suggest that a single experience, or a number of experiences close together, might produce a delusional system? And if so, what's the consequence of that? We are used to thinking about the development of, say, depression as a result of our normal thinking. Why stop at depression? That's my other point.

DIERKENS: I am perhaps just a borderline case, I don't know. I wish to tell you what I have learned in my own practice. For about 15 years, I was very concerned about the differences between hallucination, delusion and psi events. I thought that there could be some telepathy between mother and child. I asked a professor who was the head of the World Health Organization and he said that the problem is not why the telepathy exists between mother and child, but why does it stop because telepathy is evident. From that moment on, I tried to see problems in reverse. Aren't we just in a paranoid society, absolutely delusional, denying the evidence, so we are merely half deaf or half blind trying to tell those who hear well or see well, they are perhaps delusional or schizophrenic? When you use that kind of thinking, everything that you said may be just reversed; we share that delusion in a general way. I think it is sometimes interesting, especially for us who most probably have had some experience, because I don't believe that people would spend their lives concerned about events that they never saw. So, why are others not open to it? Why is our society closed to it? If you go to Africa, or to India, it is evident. Perhaps the delusion is different. I think for people who have that "opening" it is very difficult to relive. For little children, when they see an apparition of their grandmother, most probably the family would say, "Well you're tired,"

"Well, that's just fancy," "Well, you are probably ill," or "You have fever." Instead of saying, "Well, that's perhaps one reality, but there's another too." If we could follow some adolescent, who experiences some huge spiritual emergency, as Grof said, in ESP or Spiritualist sessions, they are absolutely normal, years and years afterwards. So I think that we should not insist so much about the delusion of those open to ESP, but perhaps more to the delusion of the scientists who are not open to it.

TIERNEY: I completely agree with you. The point I was making was how do we encourage the people who write things like DSM-III-R to consider the possibility that our concerns may be relevant, because at present I suspect there is a lot of harm being done.

PARKER: I think it was excellent that you highlighted the contribution that psychologists have now made to this field. Previously it has been the territory of psychiatrists, so it is now an opportunity for psychologists who have come with their own theories. I'm not sure that we have at present much in the way of a major contribution, but it is certainly worth examining the kind of detail that you presented. I would like to say something about some of the contradictions that I think are still inherent in this approach. As you pointed out, Maher's concept of delusional assistance is that first there is a perceptual oddity that occurs and then the thought disorder comes afterwards. You tried to relate it to experience of significance and that certain people, because of their anxiety or attention span, they doubt that these perceptual oddities are to be given extra significance. But, I think we must think of the examples that Donald West gave earlier, that it is perhaps quite heterogeneous how people attribute significance. There are those that have these unusual experiences and do become quite affected by them, and develop delusional systems. Others just dismiss it as an oddity and don't know what it is. There are others who put the label ESP or psychic experience to it. I'm not sure that you can draw the line straight across and say that they all have this sort of anxiety trait, or attentional difficulties, whatever. I think personality in the sense of those earlier mentioned defense mechanisms can be important when the experience is threatening to the personality functioning. I think that what really has to be taken into account is whether it is experienced as invading the personality. Of course, this brings up a major problem. Do schizophrenics who have delusions or thought disorder, have any basis for it? Certainly, I think we have to fit in the psi model to the whole thing if one takes psi seriously. How does it fit into these perceptual oddities? I think that really needs to be worked out.

TIERNEY: Can I concentrate on the first point? I think we are just

using different terminology. For defense mechanisms, I would say "anxiety reducing strategies". I don't think I was suggesting that the experience of significance was the same across the board. In fact, I'm perhaps saying the opposite, that there will be some people for whom the experience of significance in relation to some psi related event is extreme. And those for whom, the psi event doesn't matter, in fact there is no experience of significance. It is just an oddity that one forgets. So I was saying, it is for this group of people for whom, probably with high state anxiety or trait anxiety, where the experience of significance will have some function, and therefore will tend to reinforce the anomalous belief. It is difficult to call it a delusion but that is what it will be interpreted as by the people, our colleagues, who think of it as a delusional belief.

NEPPE: I have several comments to make, both from the framework of this discussion on the schizotypal personality disorders, as well as the framework of significance. In relation to schizotypal personality disorder, I really am coming from both sides, as a consultant to the *Diagnostical Statistical Manual Three Revision*, and now to *DSM-IV*, and also as someone highly critical of the current *DSM* framework. First, a critical aspect being missed in this presentation is the fact that the *n* criteria for schizotypal personality disorder, also include the larger subject of the criteria for personality disorder itself. Criteria for personality disorder are well formulated within the framework of *DSM-III-R* and relate to a maladaptive pattern of coping behavior over a prolonged period of time. When examining individual symptomatology, it is rather ludicrous to take them out of context. Second, I am fully in agreement with the absolutely appalling mess that has been made with schizotypal personality disorder, particularly in the concept of magical thinking and unusual perceptual experiences which clearly integrate and include the vast majority of a population, based on several surveys of incidence of subjective paranormal experience. In my own study of a captive population, we found 95% of elderly women over the age of 40 had admitted to at least one such experience. So the framework of using such general criteria in *DSM-III-R* schizotypal personality disorder is ridiculous unless one looks at the whole context. The whole context involves what are called polythetic criteria. In this instance, one needs three of nine criteria to be present. Two of these—magical thinking and unusual perceptual experiences—are easily present in many people who experience subjective paranormal experiences (SPE). The fact that many people who have SPEs might not perceive these as magical experiences, is beside the point. However, one still needs other pathologic criteria. To me, the major pathologic criterion

is reference. Ideas of reference that you mentioned are not necessarily delusional. They may be ideas relating to events which the person is interpreting as having significance for themselves, but do not necessarily have a delusional quality to them. That may well be the distinguishing component between normality and abnormality. Third, I was interested in your hypothesis of anomalous experience being one kind of experience of significance and this ultimately leading potentially to some kind of psychotic break. I will be mentioning this briefly tomorrow in the concept of subjective paranormal experience psychosis which seems to be an entity, albeit rare. Fourth, it seems to me that we have to differentiate between experiences that are subjectively significant—that have a subjective meaning for the individual—from those that the average, respectable member of the culture would perceive as significant. These are two dichotomous directions that may well have a meeting point with some experiences, but unless we subdivide them at the outset we may well be interpreting chalk as the same as cheese.

TIERNEY: To take the first point, I think you are making my point in the sense that I will agree that if we had some loading on those criteria, it would be helpful. To take two of the required three ideas for magical ideation is not a good idea. I take the point that one should bear in mind the idea of a personality disorder which includes the degree of insight and the ideas of reference. But, what bothers me is that though that condition may arise after, and as a consequence of an anomalous experience, it depends when the person is being accessed. If they are being accessed 10 years after the event, having developed all of this, then a lot of the criteria may be a consequence of the original experience. That is my only point.

WEST: I want to make a very simple point. The kind of people that I was thinking of who report numerous psychic experiences, certainly the vast majority of them, do not become psychotic. In fact, if you have experiences over 10 or 20 or 30 years, and this was going to be related to becoming psychotic, you would have become psychotic long before. Looking at it the other way around, when you are confronted with very well developed psychosis, people who have extreme preoccupation with paranoid experiences, hearing persecutors talking to them through the wall or via the radio, one would like to know whether these are people who have had, before they became ill, what would generally be called the kind of psychic experiences that we are interested in. I don't know the answer to that. The very few people that I have known, both before and after they had developed a frank psychosis, have not been people who have reported psychic experiences before they became ill. I would really like to know whether that is a general experience.

TIERNEY: I would not make any comment on that other than I completely agree. Perhaps it is the basis of some research.

WICKRAM: I found the concept of unassimilated subjective psi raising the baseline anxiety level, an interesting concept. I call it subjective psi because we have no way of verifying the objectivity of these verbal reports. You have generalized anxiety at this level, but it cannot be fit into the person's life so it generates more anxiety, unless they can find an expression that then supposedly reduces anxiety. That is a psychological presentation of a distress. Have you observed any somatization in people, for example, who are doubters who cannot fit it in? Are they more repressed? Are they more apt to somaticize the experience? Have you noticed or kept track of, not only the psychological consequences, but somatic consequences of reported subjective psi?

TIERNEY: No, I haven't.

WICKRAM: Has anyone?

TIERNEY: Not to my knowledge.

HARARY: Just a quick follow up to what I asked you earlier. On a practical level, assuming that we have some idea of what we judge as everyday reality and what is a real deviation from that, how do you treat a person, in your opinion, without invalidating, a possible genuine psi experience? How do you treat the delusion or do you even treat the delusion? Does it matter if a person is having delusions if they are otherwise able to cope with daily life? Let's say, they are having delusions and you decide this is not good for them. How do you work on that problem without totally invalidating something genuine that may be going on? Because if you invalidate what is genuine, and they later find out that it was real, then aren't they likely to fall back into the delusion?

TIERNEY: It is as you said before, one should not get involved in the meaning of this. The way I would approach it is to suggest to the person alternative strategies they might like to try out, to test the explanation they have for the anomalous experience. I would not want to be getting involved, at that stage, to talk about delusions or anything else. I just want to know whether they have any framework for testing this? So, in the future they can say, "Well, it's an experience and it means this," or "That's an experience that means that."

HARARY: So, you allow them the freedom to have their genuine experience, and you just approach the interpretation of it?

TIERNEY: Yes, their interpretation.

HARARY: Do you offer them alternative explanations?

TIERNEY: It would be one way of doing it, in a way that would appeal to me. Not that they should then take those explanations, but perhaps use them as a way of testing.

HARARY: What would be an alternative explanation? Let's say, that I decided that I was having psychic experiences and spirits were in communication with me indicating I was the reincarnation of Joan of Arc. And they were giving me other information, by the way, which turned out to be true.

TIERNEY: Well, that would be excellent. One would test that by saying, "Well, tell me the next time this happens to you and we'll test out what they tell you to see whether it's true or not."

HARARY: OK. Let's say the information tests out. Does that mean that I'm the reincarnation of Joan of Arc?

TIERNEY: If it's true, it would depend on the nature of the test we set. If it was clear-cut with no outs, it would mean that something was going on here which we could take as part of your explanation, but not the whole thing.