THE NORMALITY AND ABNORMALITY OF PARANORMAL EXPERIENCES: PREDICTIONS FROM CLINICAL, COGNITIVE, AND PSI MODELS

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Introduction

My title I believe gives expression to what I think is a common experience among clinicians having an interest in psi-experiences: it is clear that for many individuals reporting paranormal events, these experiences are to be best understood as part of a larger personality breakdown. Yet there are also a number of apparently healthy individuals who report paranormal experiences and while they may find these experiences initially disturbing, these individuals do not appear to show any form of psychopathology. Finally there exists a third group, more difficult to assess, who either as a consequence of, or in some cases concomitant with these experiences, seek a conceptual framework for them by joining various occult and mystical groups.

The central question is then: are paranormal and abnormal experiences intimately or just incidently linked? Certainly parapsychology and clinical psychology share a common heritage in the field that was once called abnormal psychology. Indeed when boundaries were not so carefully drawn up at the turn of the century, psychical research was considered mainstream enough to be represented at the First International Congress of Psychology. Although I know of no standard textbook of clinical psychology or psychiatry that nowadays gives a mention to parapsychology, there have been numerous big names among the psychotherapists who have declared an interest in parapsychology. Here I am thinking of not only Freud and Jung but of even contemporary examples such as Jerome Frank and Carl Rogers. It is also true that much of what the early investigators of the Society for Psychical Research regarded as part of their subject matter—mesmerism, automatisms, mediumship, and dissociated states—now is conve-

niently placed under the rubric "altered states of consciousness." However even this area is a kind of exotic no-man's land and when the term does appear in psychiatric textbooks, it is usually treated as synonymous with disturbances of attention and ascribed to malfunctions in the brain's reticular activating system.

It is then the aim of this paper to attempt to find or re-discover areas of cross fertilization between clinical psychology and parapsychology. In doing so I will have recourse to refer to input from not only clinical research but also from cognitive psychology, applying the form of attribution theory so enthusiastically recommended by Susan Blackmore and James Alcock. It is my suggestion that we test these models along with the paranormal model for the purpose of making differential predictions. As regards taking the paranormal model seriously, the view taken here is, while it cannot be said that this is "proven" (an impossibility in empirical science) there are good grounds for continuing to work with it (Parker, 1987). Although it would be premature to have any firm ideas about the outcome of predictions from various models, it does seem clear that we can gain from this a greater understanding of how these experiences relate to human functioning and states of mind. What I would like to focus on in particular is where I believe parapsychology has already an important potential contribution to make to clinical psychology. This concerns the two dimensions that seem the most promising as regards relating paranormal experiences to other psychological phenomena: the *need for absorption* and *perceptual defensiveness*. I believe these dimensions can also teach us something of a fundamental nature about psychotic experiences.

Before getting into differential diagnostics, it may be useful to give some illustrative examples of competing explanatory models. The accompanying brief with the invitation to this conference indicated that examples of psi in clinical practice would be of primary concern. Now having worked for the last two years primarily with teaching and research, I had no current examples readily available. Not long after this at a lecture given by Robert Morris, the chairman of this conference, during his visit Gothenburg, I met with a psychotherapist colleague who had more then two years previously been involved in treating on a private basis the mother of the son I had then been seeing in the context of my previous work at a child psychiatry unit. We had not had contact since then and I naturally had wondered how it fared for our former patient. Two days later on returning from Stockholm, I learned that this patient had been seeking me and wished to arrange a consultation. This was arranged and I think it turned out to be mean-

ingful for her and her son. Coincidence or not, it was also meaningful for me since it gave me a needed example to present here.

Now of course to attribute this to more than coincidence may be merely an example of attribution of meaning, by as Blackmore and Troscianko (1985) would put it, setting the chance baseline too low in order to gain illusory control of and make sense of random events. However given that the majority of the populations of Western countries where surveys have been carried out report experiences they interpret as paranormal and which often seem intrinsically improbable, it seems doubtful that this can be a general explanation. Other cognitive theories abound attempting to relate belief in the paranormal to credulity, lack of critical thinking, and irrationalism (Alcock, 1981; Zusne, 1985). On the other hand, turning the argument on its head, I am not the first among those who take the paranormal hypothesis seriously to highlight the role of meaning in promoting apparent paranormal events. No lesser a world authority on quantum physics than David Bohm (1988) has theorized on the role of meaning in linking mental and physical events and in providing a facilitatory framework for paranormal phenomena. Perhaps the nearest that there is to a generally accepted theory in parapsychology—the conformance model of Rex Stanford's—gives a primary role to meaning and teleology as influencing behavior and decision-making processes. Clearly there are competing models here.

The Clinical Model

Let me introduce the second non-parapsychological model of psi experiences by a further clinical example. I am presently replying to a letter (which also happened to arrive at an appropriate point in time) which relates many features typical of cases I encountered when I worked clinically. This concerns a 14-year-old boy who reports hearing inexplicable sounds and footsteps, seeing black shapes even crosses. Occasionally door handles appear to rotate and he is drawn by a power to certain doors. Voices tell him to do certain things under threat of punishment. It is claimed that one of the apparitions seen, was witnessed by a friend. The letter ends asking whether this can be a poltergeist disturbance. For a clinical psychologist such experiences are alarming since they are indicative of a schizophrenic process.

This is a process which usually has its debut in adolescence and is characterized by the breakdown of ego-boundaries giving rise to symptoms such as "thought transference" and "the presence of a force or persons not there." It would seem to ring true in this case and it nat-

urally raises the question of how do we reconcile the fact that many of the phenomena of parapsychology are regarded as symptoms in psychiatry? A look at DSM-III-R, the current psychiatric diagnostic system (see Table 1), shows clinical psychology and parapsychology share some of the same subject matter.

The reporting of apparent paranormal experiences is of even greater diagnostic significance according to so-called Schneiderian first rank symptoms of schizophrenia. These concern the breaking down of ego-boundaries with ideas of thought invasion and thought broadcasting. Schneiderian first rank symptoms form the basis of the much used diagnostic interview procedure called the Present State Examination, developed by Wing and his associates at the Maudsley Hospital.

Now a problem immediately arises when we consider the percentage of the populations of Western countries who report paranormal experiences and believe in extrasensory perception (Palmer, 1979; Haraldsson, 1985). In a classical theory of schizophrenia as a disease entity, it would be absurd to believe that between 55 and 75% of the population show symptoms of it.

Among those who take parapsychology seriously, there have been two attempts to resolve this issue. First, by supposing that the claim of schizophrenics that others are reading their thoughts and influencing them, might actually be right, and alternatively by specifying criteria how one can distinguish a genuine paranormal one from a pseudo one which is symptomatic of disturbance. The classical review by Bruce Greyson (1977) "Telepathy in mental illness: Deluge or delusion?" indicated that the empirical testing of schizophrenics' claims of telepathy, revealed results which clearly favor the delusion verdict. It may well be the case (as Rogo, 1982 pointed out) that the definitive experiment specifically designed to test individual delusions, has yet to be done but there do nevertheless seem to be grounds for supposing that we are dealing with different phenomena in the psychiatric field from the parapsychological one. From this perspective, several writers (Ferguson, 1987; Neppe, 1988) have attempted to identify set criteria for

TABLE 1

DSM-III-R. Numbers 6 and 7 of the Nine Diagnostic Criteria for Prodromal or Residual Symptoms of Schizophrenia:

6. odd beliefs or magical thinking, influencing behavior and inconsistent with cultural norms, e.g., superstitiousness, belief in clairvoyance, telepathy, "sixth sense," "others can feel my feelings," overvalued ideas, ideas of reference.
7. unusual perceptual experiences, e.g. recurrent illusions, sensing the presence of a force or person not actually present.

how a genuine paranormal experience can be distinguished from a delusory one symptomatic of a psychotic process. A complication lies in the fact that a paranormal type experience is often in itself experienced by individuals as frightening and disturbing. This not withstanding, it does appear to be a distinctive feature of the psychotic state that these experiences become a central preoccupation of the individual, are perceived as part of a larger delusional system of beliefs and most critical of all, as threatening to the integrity of the self.

A further attempt to resolve the problem created by the current proliferation of occult type experiences among the normal population involves the notion of *schizotype personality*. This along with other personality disorders such as schizoid personality and borderline personality was first introduced to DSM-III as a means of reconciling the more all encompassing criteria for diagnosing schizophrenia in the USA with the stricter criteria used in UK. (Arthur Koestler commented that he was 33 times more likely to be diagnosed schizophrenic in the United States than in England.) A schizotype personality is a supposedly schizophrenia prone personality within the normal population. Evidence is however lacking as to whether any of these personality disorders are actually more prone to schizophrenic breakdown. Central to the diagnosis of a schizotype personality are paranormal beliefs, magical thinking, and unusual perceptual experiences. Examples among occult movements of the expression of schizotype personality are not hard to find. Undoubtedly on this basis, the Swedish mystic, Emanuel Swedenborg, would be regarded as a classical example of a schizotype personality. However this case begs the question, since with Swedenborg there are well attested examples of what would seem to be a genuine paranormal ability including the occasion that impressed Immanuel Kant, when Swedenborg told of the exact place of a fire that had broken out in Stockholm before the news could have reached Gothenburg where he was staying. A more contemporary equivalent to Swedenborg, is to be found in the curious work that has gained current popularity known as *A Course in Miracles*. This is an apocalyptic guide to self enlightenment dictated through an inner voice during a period of seven years to Helen Schucman and William Thetford, who by a stroke of irony, were professors of medical psychology at Columbia University!

What is important here is that for clinical psychologists, the introduction of schizotype personality disorder meant the possibility of replacing the illness view of schizophrenia, with a dimensional view of psychosis and psychotic-like experiences; certain individuals being more at risk than others. The work of Loren Chapman and Jean Chapman (1980, 1988) at the University of Wisconsin is outstanding in this re-

spect. They have developed scales for perceptual aberration (especially body image distortions) and magical ideation and then showed that these predict how subjects will be independently rated on the basis of interviews as to the degree of psychotic and psychotic-like experiences reported. What might be viewed as contentious here is that the magical ideation scale is "designed to measure belief in forms of causation that by conventional standards in our culture are invalid, such as thought transmission, psychokinetic effects, precognition, and the transfer of psychical energies between people." Mixed with fairly standard questions about belief in various paranormal phenomena are items of a more morbid nature such, as "I have had the momentary feeling that I might not be human."

Perceptual aberration as a predictor of psychosis is in itself not new—the work of the Humphrey Osmond group in Canada (Hoffer, Kelm, & Osmond, 1975) came to the same conclusion and predates the Chapmans—but it is the thread of relationships they found between perceptual aberration, various occult beliefs, body image distortions and the occurrence of psychotic episodes that is of interest. However, even if we disregard the arbitrary pathological labeling given to some of the experiences, the obvious weakness of this work is the tautology inherent in some of the measures. For instance the interview rating of psychotic episodes is based in part on the degree of belief in thought transmission which itself also features in the magical ideation scale. More important in the present context, the question remains would mere belief in basic paranormal phenomena (i.e. ESP) show any relationship to the more pathological bizarre experiences? The only study to my knowledge to address this, was carried out by Michael Thalbourne (1984) and the findings are particularly interesting and convincing, given that they were precisely the opposite to his own expectations! Thalbourne dealt with the tautology aspect by removing the items relating to belief in basic paranormal phenomena from the magical ideation scale and thereby creating a more purified psychosis scale. He then found this psychosis scale to show a surprisingly significant relationship to the standard (sheep-goat) scale of belief in ESP. Although the relationship between belief in psi and schizotypy was not a strong one, the finding is an important one and one that demands an explanation. It is also important to know whether it is just belief in paranormal phenomena or also apparently veridical experiences that show this relationship. Furthermore, mere psychiatric labeling can hide much heterogeneity. I think I can illustrate this best by my own "twin study."

Recently I have had contact with two Swedish twin sisters, one resides in England and the other in Sweden, who have had frequent out of

body experiences and written books about them. The Swedish resident, Agneta Uppman, has reported a least two experiences which have veridical value and on one further occasion both twins appeared to be able to briefly communicate in what seemed to be simultaneously occurring OBE states. What is interesting in the present context are the different reactions of the twins as regards interpreting their experience. Neither of them are dogmatic as regards the interpretation of out-of-body experiences. Agneta is probably the most agnostic and has rejected the solicitations of various occult and New Age groups which abound in Sweden. Her sister on the other hand seems to have had a greater need to seek some interpretive structure for her OBEs and sought contact with the Swedenborg Church in England. Now it is difficult to assert which comes first, the belief structure or the experience, but at least in some cases a paranormal experience may lead to an openness to a wide range of beliefs which might gain one a psychiatric diagnosis. Moreover, as one might expect "out-of-body experiences," while they are not directly specified as "body image distortions" by the Chapman group, they are nevertheless considered as "other schizotypal symptoms" in the general profile of psychosis proneness (Chapman, Edell, & Chapman, 1980). In contradiction of this, it does however seem clear both from a scrutiny of the Chapman's own data and from a study by Blackmore (1986) that when OBEs are carefully defined and distinguished from various body image distortions (such as depersonalization) they are not over-represented in a schizotype or a schizophrenic population.

What of individuals with attested abilities—the high scoring ESP laboratory subjects—what do we know of their beliefs and reactions to having a "proven" ability? There is surprisingly little to go on here but it seems likely once again that there is much individual variation. Two subjects that I tested (Parker, 1974) reported psychic experiences but preferred to interpret them as intuition and both became frightened at the prospect of "being discovered." Last year I was able to contact and interview Miss L. B., a former Swedish high scoring subject. A psychology graduate, she had moved on to have experiences which made ESP trivial and mundane and now works as a counselor with a religious foundation. Evidently the relationship between experience, ability, and belief in this area is a complex one and one where notions of simplistic diagnostics and linear causalities may do more to confound than illuminate the issue. In view of this uncertainty surrounding the meaning of the relationship between apparent paranormal experiences and schizotype personality, it may be as well that we return to basics and ask what is actually known about schizophrenia and schizotypy.

Indeed if there is one issue in mental science that rivals that of the paranormal in terms of controversy, it surely must be the nature of schizophrenia—and this is despite the enormous research effort to resolve the issue. Various theories and findings accumulate—from brain hemispherical asymmetry, suspected virus infection, to excess dopamine. Much of the status of biological psychiatry is staked on a supposed genetic link between these brain abnormalities and psychotic behavior. Appealing as it might be, the supposition does not withstand skeptical scrutiny. Much of the genetic evidence has serious methodological flaws and even the often cited twin studies of Kallman may have been in some measure due to fraud (Rose, Kamin, & Lewontin, 1984). The most recent claim of a breakthrough in this area was published in *Nature* 1988 by a research team from the Middlesex School of Medicine in London. Using genetic markers to study the genetic code of five Icelandic and two English families with a high incidence of schizophrenia, they believed they found a locus on chromosome 5. This was heralded by the press as a breakthrough, yet the linkage was only strong when all "fringe types" of diagnoses (including schizotype personality and various neurotic disorders) were added to the schizophrenia diagnoses. Moreover, *Nature* published in the same issue a joint Swedish-American study which failed to replicate these findings. The most generous interpretation of these findings would be in terms of a genetic vulnerability model of mental disturbance—which is a clear contrast to simple causal genetics.

The same month that *Nature* released these findings, the *British Journal of Clinical Psychology* published what would seem to be the most devastating attack yet on the concept of schizophrenia (Bentall, Jackson, & Pilgrim, 1988) and which, in this writer's opinion, evoked a mere placating response from John Wing who is probably Britain's foremost acknowledged authority on schizophrenia. The lack of agreement in diagnosis, the lack of consistency in findings, and the failure of factor analysis to substantiate a unitary behavioral entity, led the critics to conclude:

> Given that schizophrenia is an entity which seems to have no particular symptoms, which follows no particular course and which responds to no (or perhaps every) particular treatment, it is perhaps not surprising that etiological research has failed to establish that it has any particular cause.

This is not to say that nothing has been learned. The authors of the above review in pointing out the way forward also singled out the work of the Chapman group in suggesting that schizotypy or psychotic like

experiences may be normally distributed in the population like other psychological traits. In addition they give credence to the little known work initiated by the Scottish psychologist Graham Foulds, which suggests that mental illness is hierarchical. In clear language, it's necessary to become extremely neurotically crazy before becoming psychotically crazy. Putting this together, it suggests that if there is a genetic factor here, what we may be talking about is a predisposition to unusual perceptual experiences or even dissociation of personality in the face of stress. Let us not forget that splitting or dissociation was fundamental to Bleuler's original conceptualization of schizophrenia.

There is also one study that I think is particularly illuminating in this context. This concerns a follow up study of babies of schizophrenic mothers that is well controlled with both blind assessments and a comparison group (Heston, 1966). All the children were adopted within the first three days after birth and grew up without contact with the mother. (The environmental influence of the schizophrenic parent is thus minimal.) The results of the follow up into adulthood are very instructive: 10% were diagnosed as schizophrenic (none were amongst the control adoptees) and 55% had serious psychosocial impairments. What is however most interesting in the present context is that many of those regarded as "normal" were judged to have creative and colorful life histories. The ability to perceive the world in novel ways may also provide a basis for creativity. Another finding which I think is of interest here comes from the World Health Organization (1979) survey of schizophrenia in different cultures. They found strong support for the view that although psychotic states seem to be universal, their intensity was more benign and their duration shorter in developing countries. Cultural and family support were implicated as important in determining this outcome.

The conclusion I draw from all this work is that schizophrenia and schizotypy are the *disturbed* outcome of a predisposition to perceive the world in unusual ways—that is to say the ability to have unusual perceptual experiences. The predisposition may be genetically inherited and normally distributed. This is, of course, not so far removed from the claim that mystics and schizophrenics share the common ability to experience altered states of consciousness, but react to them differently.

The Cognitive Model

It may be of interest to note that this emphasis on a predisposition towards unusual *perceptual* experiences is actually commensurate with the contribution of the earlier mentioned cognitive approach. In recent

years cognitive psychologists have attempted to apply models from the way normal individuals reason to delusional beliefs. A wide range of so-called anomalous phenomena are considered game including paranormal beliefs, hypnosis, and schizophrenia. The individual is considered to be responding to the social demands of the situation and building temporary or permanent belief systems about the universe on the basis of the data he or she is provided with—and like normal individuals he or she stubbornly requires a great deal in the way of disconfirmatory data to change his or her belief system. In schizophrenia it is the anomalous perceptual experience that is primary and the delusions and thought disorders that derive from this (Kihlstrom & Hoyt, 1988; Maher, 1988). Individuals seek out events that are coincidental with or contrary to the anomalous event and form hypotheses around these. There is a suggestion that believers in the paranormal may consistently underestimate the level of what can actually be due to pure coincidence (Blackmore & Troscianko, 1985).

Beyond this, attempts to identify cognitive errors in the thinking of those who believe in and report paranormal events, have however only succeeded in identifying magical ideation as a possible characteristic (Zusne, 1985). This naturally begs the question: what is the nature of the anomalous event? Moreover, why are some individuals more prone to it than others and how do we explain the ways individuals react differently to it? I believe these to be serious shortcomings of the cognitive model.

To answer these questions it is necessary to relate the predispositional concept arrived at above to some of the work done in parapsychology, in particular to what we know about absorption and perceptual defense and explore the ways that paranormal experiences may fit into the models. It is possible that these factors can explain much of the variability in human experience and behavior in this area.

Absorption and Perceptual Defense

The parapsychological model of "subjective paranormal experiences" supposes an extrasensory communication process to exist which is favored by internal attention states. The long tradition of experimental research and spontaneous case studies linking ESP to means of inducing these states such as sensory deprivation, ganzfeld, and hypnosis gives support to this notion. In its simplest formulation the parapsychological model further supposes that ESP functions as a process like ordinary perception which is influenced by the defense mechanisms of personality (Edge, Morris, Palmer, & Rush, 1986). Such defense mech-

anisms are of course likely to be less active during periods of altered states of consciousness. It is natural then to focus interest on measures of the ability to alter and focus consciousness and the measure known as perceptual defense.

Absorption is defined as "a total attention involving a full commitment of available perceptual, motoric, imaginative, and ideational resources to a unified representation of the attentional object" (Tellegen & Atkinson, 1974). The questionnaire designed to measure this dimension has been used in a variety of psychological research and absorption is reported to be an important variable in dissociation and self awareness, hypnosis, dream vividness and recall, cross modal perception, and out of body experiences (Irwin, 1985b; Råmonth 1985a, 1985b). The few experimental investigations of ESP in relation to the absorption dimension would appear inconclusive but an investigation by Irwin (1985a) found a strong association between reports of spontaneous ESP and absorption. Ironically, many of the questions in the Absorption scale, while not identical with those of the clinical instruments, would appear to relate to the same areas that clinicians use to identify schizotype traits and psychotic-like experiences (see Tables 2 and 3).

TABLE 2

Examples of Possible Related Questions on the Perceptual Aberrations Scale and the Absorption Scale (in italics)

Sometimes I have had the feeling that I am united with an object near.
Sometimes I feel as if my mind could envelop the whole world.
I have sometimes felt that some part of my body no longer belongs to me.
If I wish, I can imagine that my body is so heavy that I could not move it if I wanted to.
Sometimes I look at things like tables and chairs, they seem strange.
Sometimes I experience things as if they were doubly real.

TABLE 3

Some DSM-III-R Criteria for Schizotype Personality and the Absorption Scale

Ideas of Reference:
Things that might seem meaningless to others often make sense to me.
Odd beliefs or magical thinking:
I often know what someone is going to say before he or she says it.
Unusual Perceptual Experiences e.g. illusions sensing the presence of a force or person not actually present.
Often I sense the presence of another person before I actually see or hear him (her).
I sometimes step outside usual self and experience an entirely different state of being.

Although these instruments may be sharing the same dimension (i.e. unusual perceptual experiences and altered states), the truly pathological aspect involves of course threat and lack of control, and in some cases bizarre personal interpretations of the experience. In extreme cases the experience may even take on a dissociated form and be regarded as alien to the self. In this sense it is not surprising that the Absorption scale has been used as a measure of the ability to go into dissociated states (Råmonth, 1985a, 1985b). What is it then that determines the pathological or benign or even pleasurable content of the experience? I suspect this may relate to the defensive nature of the dominant "ego-state" of the individual and the degree of emotional conflict. This naturally involves a view of identity and the self as polymorphous but this appears to be a view that is gaining support in psychology with the return of the concept of dissociation and the current interest in borderline personality and more recently in sub and multiple personality (Rowan, 1989).

Given this view of personality, it is not difficult to suppose that some individuals predisposed to these perceptual alterations, will, with an open, non-defensive self concept, react to them positively while others who are more perceptually defensive may be threatened and perceive them as alien. Much will of course depend on whether such experiences are enforced ones or sought after ones. In other words in this theory *schizophrenia is an enforced state of perceptual absorption in inner conflicts leading to perceptual aberrations which by nature of the individual's defensiveness are interpreted as alien and become delusory.* A third, perhaps predominant group, will naturally seek some conceptual structure for their experiences by interpreting them in the form of some occult belief, and this is of course the group labeled schizotypal.

The instrument that would seem to offer the most sensitive test of defensiveness, is the Defense Mechanism Test (DMT) developed by Ulf Kragh and G. W. Smith in Sweden. Strictly speaking, it is a percept-genesis test rather than a projective test and is designed to evaluate how the individual reacts to a threatening image in terms of the influence of anxiety on perception. The DMT has a good reputation both in and outside Sweden, although some controversy surrounds what it is actually measuring (Sjöberg, 1981; Cooper, 1988; Kline, 1988). Use of the test has been pioneered in parapsychology by Martin Johnson at Utrecht University and Erlandur Haraldsson at the University of Iceland. A remarkable replication rate has been achieved (Johnson & Haraldsson, 1984). However, because of the expertise required, the use of this test has been almost confined to the Johnson-Haraldsson team. Only one attempt has been reported to date to assess its discrim-

inatory value in altered states-ESP work (York & Morris, 1976) and here the lack of a complete DMT series and other methodological problems would seem to prohibit any conclusions being made (Johnson, 1989).

Although the DMT is a test analogue of assessing defensiveness in a threatening situation, it is nevertheless at best a crude measure and the same is certainly true of the Absorption scale. It is also well to remember Michael Persinger's comments on how difficult it is to gain replicable correlations of psi with other variables when the level of the so-called psi-effect is usually somewhere between 1 and 5% above chance. Nevertheless results with the DMT are not only encouraging in their own right but they have a certain construct validity in relating to other lines of research which suggest openness to experience may be an important factor relating to psi (e.g. Honorton & Schechter, 1987).

Some Predictions

No attempt has been made to my knowledge to explore the potential relationship between the need for absorption, defensiveness, and psi. It is conceivable that individuals who have a natural predisposition to or even a need for experiencing alterations in perception and consciousness, and who are open to the content of it, may be receptive to ESP. Rather than relying on purely correlational findings, it may be more effective to actually assess how individuals with a need for absorption and with a known profile on perceptual defense and magical ideation actually react to a testing procedure (such as the ganzfeld) designed to facilitate perceptual changes with the possibility of a psi content. The way such individuals evaluate their experiences afterwards would in addition provide data on which some predictions from the cognitive and clinical models could be tested.

With a cognitive theory, we would expect individuals showing magical ideation to make evaluations that would attribute more significance to chance resemblances between their experiences and free response ESP targets. A clinical theory would make a similar prediction but with the proviso that the effect would depend on the degree to which subjects score highly on magical ideation and perceptual aberration. From a parapsychological viewpoint, it would seem unlikely that magical ideation and cognitive errors would show any clear relationship to actual success on the ESP test. It might be theorized that potential ESP experiences in this group would be often strongly colored by personal needs, although this may not always be so. With the previously men-

tioned reservation concerning the insensitivity of our instruments, the effect we would be most looking for would be a relationship between absorption, non-defensiveness, and ESP. One could speculate further. It has been reported by the previously mentioned Osmond group and also in a more recent survey (Philipson & Harris, 1985) that the prodromal (initial) signs of a psychotic episode are perceptual changes in form, color, and depth. One of the most promising, but in recent years least tested, hypotheses in parapsychology states that ESP occurs during a sudden change in state or alteration of consciousness. Accordingly, it can be reasoned that any test of the claims of schizophrenics to paranormal ability is best conducted during this prodromal period.

Clearly the field is wide open for research which might help break through some of the impasses which exist in clinical psychology as well as parapsychology. It is probably an opportune period for such a venture since the rise of and popularity of occult groups has demanded both attention and resources from the psychiatric field to explain paranormal experiences. It has been said (Editorial in *Nature* to Lander, 1988) that schizophrenia is arguably the worst disease affecting mankind, even AIDS is not excepted. Paranormal experiences appear universal in every culture and as we have seen are an important part of the diagnostic picture of psychosis. Any greater understanding of these will also further the understanding of psychotic states.

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DISCUSSION

VAN DE CASTLE: Adrian raised the question of what happens to successful subjects later on in life. I had shared with you yesterday that I had been a successful subject in a couple of laboratory experiences and you are all aware what has happened to me. So I question the words that you had used with regard to Martin Johnson's high scoring subject later on. You said she had no interest in ESP because of her reluctance to take a card guessing test. I think parapsychologists may be suffering from paradigm paralysis. Equating interest in ESP with being willing to take an ESP test, is to me a very limited view of what ESP is. I don't know if she said she's not interested in ESP, but it seemed quite clear to me that she was not interested in ESP tests.

The other comment concerns Blackmore's hypothesis about being too ready to interpret events and to attribute significance to insignificant events. I would say that as a long term dream researcher, when people have difficulty with recall I tell them to be very appreciative of whatever little recall they get to start with. If they show their gratitude for that amount of recall, they'll find their recall will start significantly improving. Could there have been anything involving in this other event that occurred? I'm going to go back and beat the drum again about the idea of psi being there for some sort of growth or enhancement aspect, and put forth a hypothesis. You were coming to this conference as a clinical psychologist, but had no particular personal examples to show and feeling not as comfortable as you would if you had one when lo and behold, some girl with whom you have had no contact for two years, suddenly, mysteriously contacts you to provide you with some anecdotes that you could now use. If we were into making interpretations or predictions, I would say you felt better after that happened because you now felt you had a more solid paper, when before it might have felt more skeletal. Somehow you came out of that synchronistic event feeling somewhat enhanced, somewhat better prepared, yet how

quick you were to dismiss it. You want to assure us that it had no significance. You will not attribute any kind of meaning to it. You will not fall into the Blackmore pool and make any unusual interpretation of that at all. I would say, if that gets to be a typical attitude and we don't get appreciative of those little things that come along, we will never get the big ones either. I think you have to take those events, nurture them, accept them, and be open to them, then maybe some bigger ones will come along.

PARKER: I really don't know how to reply to all of that. I'm tempted to say you are right. It is interesting to hear that as a high scoring subject, you have this wider view of paranormal experiences now. I think that the way you interpret them, is perhaps very similar to the way that this girl I followed up interprets them, in the wider context. Certainly you can criticize parapsychologists for not taking into account the fuller implications of the findings, but there are realities here. We work with critics and funds are stretched. I think we also have to have an open mind or we may be deluded; it's possible that other theories have something to contribute, also.

DIERKENS: When I hear all these papers about schizophrenia, schizoid personality, and brain damage, which are paranormal, I appreciate all the work, but, I have been somewhat depressed because I think, it's wrong. I think that all of psychology is based on a "realistic" paradigm and after 30 years of studying psychology, I think that paradigm is not useful. There should be another paradigm. You can call it a spiritual paradigm or a consciousness paradigm, it doesn't matter. But I think it must be something completely and absolutely different. When you listen to what people say about their experience, and you listen to how they speak about the objects, about time, about the space, about the people they see, you find that there is some organization to the information which is completely different. The organization of the unconscious is completely different from the organization in the conscious. I mean unconscious in a Freudian sense. Since his first book, he tried to show the primary process of the unconscious. You can't understand the real meaning of a dream if you just try to use your logical consciousness. So, I think that it is the same for that other paradigm. The way the information is received is very different. Of course, the brain is there and the psychology is there, but the reality is not of the brain. It is analogous to a closed water pipe. A medium is someone who has contact, they can take water out and close it. Goats cannot, of course. Schizophrenics are perhaps broken pipes. I think there is a lot of effort and a lot of work being done, but I think it does not provide much in the way of results. Why don't you get a completely different paradigm

and experience that different paradigm? Maybe doing some meditation on the DSM-III-R could be the beginning.

PARKER: I want to make clear that I presented three different explanatory models of psi experiences. I haven't really said much about brain damage. I think it is important to make predictions from these models. Of course, some of the predictions may be wrong, and we may need to reevaluate them. I agree with you that it is difficult in the area of how personality and defense mechanisms relate to psi experiences, to make specific predictions. But I think we have to begin somewhere, and then we can reevaluate things and make new models.

DIERKENS: I don't think that it is good to do it from the reality paradigm, we need something completely different.

PARKER: It sounds as though you want to come up with a fourth explanatory paradigm.

HARARY: I thought that was a great question about what happens to people who have some proven ability in the laboratory. Maybe I could include myself in that list. I could tell you that it is unbelievably difficult to explore any kind of psi potential in the field of psi research as it is presently construed. First of all, many researchers have a very hard time dealing with strong positive results. I have seen positive data destroyed or buried in filing cabinets. I have seen people lose their psychological sense and researchers almost deliberately, unconsciously screwing up experiments and then claiming that the perceiver failed. But years later, when you finally get hold of the data, you find that the perceiver was successful. It is ridiculous. The effect on many people who have done very well, I have to say, is that it is hard to keep a balanced point of view, and many people don't. I personally have a very hard time being around a number of people (I don't include Bob Van de Castle in this) who have gotten reputations for doing well in the laboratory. The idea of being psychic has become an identity to the point where they're into that all the time. They are in collusion with certain researchers, who will say, "This is my psychic. Let me trot him or her out to do my experiment." And they will say, "Here is the person who will tell you I'm special, my researcher." After a while, many healthy people lose interest in being a part of that scene. We don't really attract a lot of healthy people into the field, with regard to experiencing psi. What do you get out of it? You get some kind of ego trip because it is implied that you are special. Personally, I'm not. There is also the idea that some of these people are in competition with each other over who gets to be more psychic. The best thing we can do is to set up the game differently. Don't say to people that they are going to get one hell of a strange reputation for being an unusual

person if they go through this experiment. When Darlene and I have done experiments in which we have tried to teach people to respond to psi impressions, people have done well and we haven't set them up as psychics. We have told them right off that it is going to be about learning to use a creative human ability which most people probably can gain access. If you set that up in the beginning, and they then say their life has been enhanced by learning about this aspect, they won't be off on some trip, climbing over each other, killing each other, trying to get in front of the camera to say, "Let me wax philosophical about why the researchers discovered me as a special human being." The fact is that you walked into that laboratory with something in mind. For me it was to find out what was going on. That is not always the case, sometimes it is to get a reputation. To process the information and work with people in the training context, teaching them how to process psi information, you have to have a pretty clear head. Being schizophrenic would not be the best way to go about it. You have to be able to separate out which feelings are psi, or what we call extended abilities and extended perception and communication, from your own other thoughts, imagination, free association, and so forth. You really have to be in a calm state and not feel as though your whole identity or your whole sense of reality are on the line. You have just got to say, "Here's the information. I don't make the news, I just report it." Darlene and I are always kidding with that line. I think you tapped into this whole well spring of very good questions when you asked what happens to people long term. In short, a lot of them don't want anything to do with the research after a while; and the ones that do, I think you sometimes have to be suspicious about what they are still doing hanging around after they found out psi is real. Why don't they get on with their lives?

PARKER: Nevertheless, I think it is clear that they don't become psychotic. I don't think there is any evidence for that. In fact, Dr. West cited in his talk, the follow-up of people over a 30 year period, though it wasn't a formal follow-up, suggested that there is no indication they are more liable to develop schizophrenia. Of course, there may be some people who in society have a need for conceptual systems and join occult groups, and would then be classified by clinicians as schizotype. But that is only labeling.

KRAMER: You said something about textbooks not having chapters on parapsychology. I suddenly realized that most of the psychology textbooks in Dutch which are used in higher education, actually do have a chapter, or at least a few pages.

PARKER: Can I just correct that? I meant psychiatry and clinical psychology course books for the education of clinicians.

KRAMER: That is what I was going to say because in higher education, you learn a little bit about parapsychology, but when you go to a university to become a psychologist, they use American books which never have chapters on parapsychology. That means that everyone learns about parapsychology except psychologists in Holland. You said something about a test in which one of the questions was, "Have you the feeling that your arm or your leg becomes longer or shorter?" It might seem a little bit strange, but it reminds me of a few clients I used to have who actually had the feeling that their heads were moving. It was very strange because sometimes they attributed it to an evil power that moved their heads or to some telepathic contact they had with something. They claimed something was moving their heads because they could not concentrate on work or their studies. The important thing is that sometimes you could see that their head was actually moving, and sometimes very heavily. But in a lot of cases you don't see it. They have the feeling their heads are unwillingly moving, but as an observer, you cannot see it. The problem is, it turns out to be very important in a clinical setting. But if you don't ask for it, the people don't tell you because they think it's of no importance to you as a psychologist or a parapsychologist. So, it might be wise sometimes, in questioning people about their paranormal experiences, to ask explicitly for that kind of phenomena. Sometimes, they simply do.

I would like to say to Dr. Dierkens that I can understand that you feel a little bit disappointed about all the pathological talking about psi effects. I heard that reaction often when I gave a lecture about the clinical aspects of parapsychology. People say, "Oh, I'm sorry because it's a beautiful psi experience." I think the difference here lies in whether you do research in psi, or if you are working as a clinician in daily practice. When you are working in a daily practice, you are confronted with a lot of cases which show you the other side of psi phenomena. People come to you because they have problems. They don't come because they are functioning well. They come because they are not functioning well. Sometimes, you simply need elements from psychopathology to cope with that, otherwise, you cannot help them. So, it's not one way or the other. I mean it's not a matter of being sick or being healthy. It is simply that in some cases people have such tremendous problems which they relate to paranormal experiences, that you need the assistance you can get from psychiatry to help those people.

PARKER: I don't think I really have anything to add to that. I think I agree with the content of those statements.

FENWICK: I liked your three models and think it's one way one has to go. The question for me is the following one. Here we have a set of experiences which we find in several different states. Do these experiences themselves mean anything more than the fact that the person is experiencing them? That immediately throws me back onto the various models that I bring to the interpretation in my data. I have a lot of sympathy with Dr. Dierkens who was saying that if you are going to use a scientific model, then you will come out with scientific results. Scientific results, by definition, cannot be anything but brain function. You will always end up by looking at different aspects of brain function. Because of the science we use, we will never get any further with that. We will have just a whole series of models, because mind is not included in our present day science. That is why CSICOP (Committee for the Scientific Investigation of Claims of the Paranormal) has such fun with us. And so they should. It is absolutely right that there is very little parapsychologists can do to incorporate modern day science. Mind and consciousness are excluded by definition from science. Your models are lovely ones, and I go along the same line as you, but how would you graft your data onto a wider framework to explain the nature of reality?

PARKER: I think your question, in fact, addresses the whole claim of psychology to be a science in it is own right rather than just a science of epiphenomena that can be reduced to physiology or biochemistry.

FENWICK: But, Adrian, you have no evidence for that. Or if you do, I want to hear it. What evidence is there that psychology is a science in its own right and does not make scientific assumptions?

PARKER: The constructs that are used in psychology can hypothetically be reduced to physiological models of the brain at some hypothetical future day. The fact remains that such terms as constructs, consciousness, self-concept, are fundamental to this sort of neo-behaviorist psychology of today. These are parts of the explanatory models of human behavior. You can be quite neutral as to your theory over mind/body relationship, and you don't have to address it. All you have to do is develop hypotheses around human behavior and self-conceptualization. I don't think one has to have a particular theory of mind/body relationship to be a psychologist.

FENWICK: There clearly is not time to go on with it.