

Insight and Psychosis

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The concept of insight into psychosis has received scant attention in the psychiatric literature. Drawing on sources such as phenomenology, clinical research and experimental psychology, it is proposed that insight is not an 'all-or-none' phenomenon but is composed of three distinct, overlapping dimensions, namely, the recognition that one has a mental illness, compliance with treatment, and the ability to relabel unusual mental events (delusions and hallucinations) as pathological. A scheme is proposed to standardise the assessment of insight to assist further research.

"Is there any knowledge in the world which is so certain that no reasonable man could doubt it?" Bertrand Russell (1912, p. 25)

In 1934, Aubrey Lewis remarked that little had been written about the concept of insight. He provided a temporary definition of the term: "a correct attitude to morbid change in oneself" (Lewis, 1934a), but warned that the words 'correct', 'attitude', 'morbid' and 'change' each called for discussion. Zilboorg (1952) stated that "amongst the unclaritys which are of utmost clinical importance and which cause utmost confusion is the term insight". Despite or perhaps because of these assertions, contemporary authors have tended to ignore the subject. Post (1983) discards it as a concept with "limited value", and few would agree with the narrow use of insight as sole criterion upon which to distinguish neurosis from psychosis (Hamilton, 1974). Yet leading textbooks from both the United Kingdom (Gelder *et al*, 1983) and the United States (Freedman *et al*, 1975) continue to recommend the assessment of insight as an informative aspect of a patient's mental state. Some assessment of insight, explicit or implicit, and with due allowance for education and background, is crucial to the process of diagnosis, especially where psychosis is concerned. As Lewis (1934a, p. 343) put it: "All questions of the judgement of reality, such as . . . the consideration of insight, go to the root of the psychopathology of different conditions".

Before continuing, it is necessary to limit the area under discussion. The sudden appreciation of how parts relate to an organised whole with the accompanying "a-ha" experience is sometimes termed 'insight' by Gestalt psychologists (Harré & Lamb, 1983). This is not considered here. Nor is the term used in the popular, *Oxford English Dictionary* sense of discernment, understanding, and wisdom. The area encompassed by the term in psychoanalytic circles – usually subdivided and prefaced by 'emotional' or 'intellectual' – is so vast and treacherous that it is avoided where possible (see

Zilboorg (1952) and Sandler *et al* (1973) for reviews). However, a few words in this regard are necessary for clarification. In the psychoanalytic domain, insight refers to a genuine awareness of unconscious conflicts or drives, as exemplified by Freud's (1933) dictum "where the id was there ego shall be". While not employing the term specifically, Freud realised that what present-day analysts would call insight was not merely rational self-evaluation, otherwise simply reading psychoanalytic texts would cure neurosis. Rather, it requires a much more profound appreciation of hidden truths which then lose their 'energy' (cathexis) when revealed and hence serves to bring about enduring changes within an individual (Strachey, 1934). It is clear therefore that Lewis' working definition differs from the Freudian notion. The former strives deliberately to be atheoretical and assumes that the underlying causes of the mental illness in question are unknown or perhaps unknowable, so any reference to technical constructs such as the unconscious is avoided.

This paper is restricted to an examination of insight into psychosis, using the term as it is applied in two different but related ways. The first is roughly in accord with Lewis' usage, namely, the patient's recognition that he or she is suffering from an illness and the realisation that the illness is mental. The second is the ability to relabel the experience of certain mental events as pathological. This would include realising that hearing the sound of a voice in a certain situation was in fact an auditory hallucination.

Recognition of illness

"No man is able to appreciate his own personality in any adequate way, being held within its own bounds – just as our astronomers are unable to see the shape of the galaxy in which our solar system revolves." (Mayer-Gross *et al*, 1969, p. 34)

Most normal people would concede that knowing oneself fully is an unattainable ideal. Realising that one is ill (having insight according to our definition) might therefore be held up as a considerable achievement. Jaspers (1913, p. 419) is more exacting:

“The term ‘awareness of illness’ is applied to the patient’s attitude when he expresses a feeling of being ill and changed, but there is no extension of this awareness to all his symptoms nor to the illness as a whole. It does not involve any objectively correct estimate of the severity of the illness nor any objectively correct judgement of its particular type. Only when this is present . . . can we speak of insight.”

Here Jaspers is perhaps too stringent in distinguishing the awareness of one’s mental illness from what he calls insight. Any awareness of this kind demands higher than normal standards of self-knowledge given the unavoidable reliance on the apparatus of mind to carry out this task, it being by definition faulty (see Ryle’s (1949) discussion of ‘self-knowledge’). Such a formulation must imply a “modularity of mind” (Fodor, 1983) whereby one faculty or module, in this case an observing agency, can remain functioning while another faculty is malfunctioning.

Establishing the presence of awareness may be more complicated than it appears. If it is taken to mean the “*verbalized awareness* . . . that impairment of intellectual function existed” (Eskey, 1958), then the observation that half of voluntarily admitted psychiatric patients fail to recognise their need to be in hospital (Appelbaum *et al*, 1981) needs qualification. Paradoxes of this kind, such as the conflict between non-verbal and verbal awareness, are considered again later.

Expecting any insight from a psychiatrically ill person is asking for a great deal but not the impossible. Lewis (1934*b*) in his classic study of melancholia in 61 patients found that 18 conceded illness of some kind but would not elaborate, while 14 considered that they had a mental disorder. But are the psychoses different? Again Jaspers (1913, pp. 421–422) is emphatic:

“In psychosis there is no lasting or complete insight. . . . Sometimes at the beginning of the process we find considerable insight, the correction of delusions, the proper assessment of voices etc . . . but insight of this sort is quite transient.”

The World Health Organization’s (WHO, 1973) International Pilot Study of Schizophrenia in different cultures confirmed Jaspers’ view. Insight was rated according to an operational definition. It was said to be present if there was some awareness of ‘emotional illness’ and absent if the patient vigorously denied the fact that he was disturbed. ‘Lack of

insight’ was the most frequent symptom, occurring in 97% of the sample. The study dealt with recent-onset cases, unlike that performed by Brooks *et al* (1968), who interviewed 68 chronic schizophrenic patients of whom about one-third denied any mental illness. However, 30 spoke in terms of having ‘an insanity’ or ‘nervous breakdown’ and 16 clearly identified their illness as schizophrenia, some even naming the subtype. In a recent series of studies (McEvoy *et al*, 1989*a,b*), insight was measured using an open-ended questionnaire which dealt with recognition of illness plus attitudes to treatment. The average score was 8.3 (s.d. 5.9) with a possible maximum of 22, for a group of acute-on-chronic patients. The authors found that insight was independent of global psychopathology and was somewhat stable despite clinical improvement measured in other ways.

The most obvious explanation for the differing estimates of the prevalence of insight lies in the way it was assessed and, more importantly, the stage of illness of the population studied (see Heinrichs *et al*, 1985). The widely held view that insight during an acute psychosis is a contradiction in terms renders the assessment of insight in such circumstances virtually impossible.

Retrospective insight

Early psychopathologists were suspicious of patients’ attitudes to their psychoses after recovery – retrospective insight. In 1823 Francis Willis asserted:

“no man . . . can be considered sane, until he freely and voluntarily confess his delusions.” (Hunter & Macalpine, 1963, p. 759)

A century later, Bleuler (1924, p. 97) wrote:

“Even the seemingly corrected delusions in schizophrenia should rather be considered as forgotten or pushed aside.”

Jaspers (1913, p. 423) was of the same opinion:

“Patients will assert they have passed through mental illness, they are convinced of the unreality of past contents and feel quite well again but they do not talk freely about all the contents. . . . They will blush, grow pale, perspire, give evasive answers. . . . In such cases as these we cannot talk of full insight.”

There is a suggestion here that Jaspers is not completely absolutist: if one cannot talk of full insight in the recovered patient, then perhaps one can talk of partial insight. Coming more up to date, Wing *et al* (1964) asked a group of 113 male schizophrenic patients just before discharge whether they would classify themselves as having been

mentally ill. Twenty per cent answered yes, with a further 52% preferring terms like 'nerves' or 'strain'. Twenty three per cent said that their own delusions and hallucinations indicated that they were or had been ill. An interesting finding emerged that reveals another facet of insight, namely that 46% of the sample would regard a person who reported hearing voices as mentally ill and as many as 60% thought an average visitor would say the same. It appears then that insight into another's illness may be preserved despite the loss of personal insight (see also Brown, 1973). Cutting (1985) asked 20 remitted schizophrenics whether they thought they had had a breakdown (14 said yes) or had been ill (17 said yes) and concluded that a surprising proportion of patients do possess insight, contrary to the expectations of many psychiatrists.

Modern authors readily accept the notion that there are degrees of insight (Gelder *et al*, 1983), of which the retrospective variety is as valid as any other, and that its development is an integral part of the recovery process (Landis, 1964).

Relationship of insight to compliance

Insight is frequently assumed to predict treatment compliance. This can become misleadingly circular when the request for treatment is used as direct evidence for insight. For example, a 27-year-old man sought psychiatric treatment because he believed electricity was building up inside his brain and interfering with his thoughts. When asked why he wanted to see a psychiatrist he replied that it was because psychiatrists know about the brain and use shock therapy. The patient possessed little insight in the sense that he did not see his illness as mental despite feeling that his brain was affected in some way.

McEvoy *et al* (1981) asked 45 chronic schizophrenic patients whether they felt they were ill and required treatment. Only 13% agreed they were ill, with 27% accepting a need for medication. A systematic study of this was conducted by Lin *et al* (1979), who measured insight by asking 100 chronic schizophrenic patients three questions: do you think you (a) had to be in hospital, (b) had to see a psychiatrist, and (c) had to see a doctor? Only 31 answered yes to one of the questions and only 14 of these adhered to their medication. Of the remaining 69, 12 took their medication. Although the χ^2 test is significant at the 1% level, it should be emphasised that over half of the patients with insight did not take their medication and 17% of the ones without insight did. The same issue was examined by Van Putten *et al* (1976), who compared 29 habitual drug-refusers

with 30 drug-compliers, all schizophrenics. Insight was determined using the WHO definition and it was found that 7 drug-refusers had insight compared with 18 of the drug-compliers (χ^2 was significant, $P < 0.01$). Again, it is clear that insight, although related to compliance, is a rather poor predictor of it. A similar design was employed in a study of 58 schizophrenic patients, 32 of whom were non-compliant (Bartkó *et al*, 1988). These patients were generally more disturbed and tended to lack insight, that is, denied their illness.

Looking at treatment in general and not merely taking medication, Heinrichs *et al* (1985) followed 38 schizophrenic out-patients to see whether they showed "early insight" defined as "a patient's ability during the early phase of decompensation, to recognize that he or she is beginning to suffer a relapse". Twenty-four (63%) demonstrated insight and of these 22 were restabilised successfully as out-patients. In contrast, 7 of the 14 subjects without early insight, who as a group had no more symptoms, required admission to hospital.

Insight clearly aids compliance but what is peculiar about these results is that patients can have no insight into illness yet still accept and derive benefit from medication. As McEvoy *et al* (1989a) remark, of 52 DSM-III schizophrenics, "many subjects interviewed who consistently responded 'no' when asked if they were ill or needed treatment . . . expressed a clear willingness to take medication in the hospital." It is therefore recommended that drug compliance and awareness of illness be regarded as separate though overlapping constructs which contribute to insight.

Is insight a good thing?

Insofar as insight tends to make treatment compliance more likely it must be judged desirable. However, the value of insight may be measured in other ways. Outcome for example may be influenced by the patient's experience of illness, although Eskey (1958) and Wing *et al* (1964) found no such effect. Three-year follow-up of McEvoy *et al*'s cohort (1989b) showed a rather weak but enduring relationship between insight and improved prognosis.

Two studies (Soskis & Bowers, 1969; McGlashan & Carpenter, 1981) investigated the views of patients who had recovered from an acute schizophrenic episode. Both found that a negative attitude (e.g. my happiest days are in the past) or one which resulted in the illness being ignored or denied (e.g. you can never really understand your own feelings) led to poor psychosocial adjustment. Furthermore it emerged that excessive insight and an overly positive attitude bordering on 'romantic idealisation'

also correlated with poor outcome. McGlashan & Carpenter concluded that the absence of a negative attitude (rather than having a positive one) is the critical factor.

Defining insight more broadly to include 'psychological mindedness', Roback & Abramowitz (1979) showed that patients with insight were better adjusted behaviourally during their hospital stay, yet they were more psychologically distressed. This concurs with the frequent observation that insight may involve a tragic and painful struggle against psychotic disturbance. That lack of insight goes along with elevated and even elated mood is supported by other workers (Van Putten *et al.*, 1976; Heinrichs *et al.*, 1985; Bartkó *et al.*, 1988). The ubiquitous grandiose conviction that one's own mental health is intact appears to be shared by some schizophrenic individuals in whom it may reach the status of a delusion, serving perhaps a protective function, albeit temporarily. Is it possible to have too much insight – a propensity to attribute mental phenomena to the effects of illness and to seek refuge in the 'sick role', or to be subjected to continuous torturing self-examination as to whether or not one is sane? Both too much and too little could be construed as forms of abnormal illness behaviour (Pilowsky, 1978). A compromise might be sufficient insight to accept treatment but not so much that it encourages brooding on the 'reality' of how severely ill one is. This formulation has parallels in the demonstrably more favourable prognosis achieved by cancer patients who adopt a 'fighting spirit' (Greer, 1983).

I'm going mad: a special case

A person believes he is insane. The doctor agrees. The 'patient' continues:

"You just said that I am insane. In that case my belief is not a delusion, but a correct idea. Therefore I have no delusion. Therefore I am not, after all, insane. It is only a delusion that I am insane, hence I have a delusion, hence I am insane, hence I am right, hence I am not insane. Isn't psychiatry a magnificent science?" (by Frigyes Karinthy, 1946, cited by Szasz, 1974, pp. 166–167).

The assessment of insight in a patient who believes he or she is 'going mad' is genuinely problematic although easily ridiculed, as in the above satirical piece. It does however have some basis in the real world, usually in the setting of depression, acute anxiety, or obsessional neurosis. The patient is distressed by the belief (realisation?) that his or her 'mind is going' and this dominates the presentation. The clinician avoids words like 'mad' and 'crazy' and

concentrates on the form rather than the content of the preoccupation and may eventually arrive at a psychiatric diagnosis. The patient has some insight in recognising the presence of mental disorder but is in disagreement with the psychiatrist as to the correct application of terms (such as 'mad') and which elements of the disorder are fundamental to the illness category. Insight is therefore partial at best.

Pseudo-insight

Jaspers (1913) warned that listening to the patient's utterances out of context can lead to mistaken judgements about the presence of insight. This can be illustrated by the case of a 23-year-old woman who had recurrent severe episodes of bipolar affective disorder. She had received prolonged psychodynamic psychotherapy before being transferred to a unit with a strict biological treatment approach. When asked what was wrong with her she would say at times, "My main problem is my ego boundaries. They tend to fuse with my mother and that's when I get sick." On other occasions she would say, "It's a chemical imbalance that I was born with." Both statements may or may not be correct. Both contain an acknowledgement of 'morbid change' but neither can be considered insight. This is pseudo-insight: the patient merely regurgitates overheard explanations arising out of different theoretical perspectives. Someone well versed in psychological theory and jargon, who understands and uses technical terms appropriately, does not automatically possess insight. The clinician must decide whether a patient's claim that an affliction arises out of, say, an excess of neurotransmitter *x*, is equivalent in his or her mind to its occurrence because of an excess of radiation from Mars, a voodoo spell, or an alleged childhood misdemeanour. If so, insight is a long way off. Factual accuracy is irrelevant, otherwise the discovery of the pathogenic role of neurotransmitter *y* would negate the insight of someone whose understanding of mental disorder was built upon neurotransmitter *x*.

Insight need not imply knowledge of causality either, a view at odds with psychoanalytic formulations (Reid & Finesinger, 1952). It simply requires the acceptance of personal illness affecting the mental apparatus (the ability to think, perceive, act, remember, etc.) whose aetiology may be, and often is, unknown. Nevertheless, pseudo-insight of the kind described above may have a hermeneutic value to the patient in establishing order in the midst of chaos and may initiate a process leading to what could be called true insight.

The neuropsychology of insight

The purpose of considering neuropsychology is not to fulfil a simplistic desire to locate an 'insight centre', but rather to illuminate the mechanisms of insight into functional conditions from a knowledge of the effects of demonstrable brain lesions. A person's recognition that he or she has a mental illness is surely a specific kind of self-awareness or self-concern. The latter faculty is characteristically lost after damage to the frontal lobe (Lishman, 1987). Likewise, 'excessive self-concern' was once the prime indication for frontal leucotomy (Robinson & Freeman, 1954). However, it is the syndrome of 'anosognosia', a term coined by Babinski in 1914 meaning a lack of awareness of disease, which is of particular interest in this context (Weinstein & Kahn, 1955). This syndrome is usually confined to lesions of the right hemisphere, usually the parietal lobe (McGlynn & Schacter, 1989). The accompanying affect, especially where the lack of awareness amounts to denial, is often one of euphoria. Again, it appears that elevated mood and lack of insight go together. Denial of hemiplegia is often dramatic and bizarre, sometimes quasipsychotic. Bisiach (1988) reported a patient with left hemiplegia and hemianopia, who did not recognise his own hand even when viewed in the intact visual field. When the examiner placed the patient's left hand between his own and asked "Whose hands are these?", the patient replied blandly that all three must belong to the examiner.

Thus, the patient, lying paralysed in his hospital bed, does not see himself as ill. Similarly, the chronic schizophrenic accepts his admission to the psychiatric ward yet denies that he has a mental illness. In neither case do the denials appear to be contrived, 'psychological' defences. In the former the underlying lesion is self-evident, while in the latter there is no obvious cerebral pathology and yet it is conceivable, though highly speculative, that an undetected right hemisphere lesion might account for this too (see Cutting, 1985). Whatever the explanation, the combination of acceptance and denial of disability is further evidence of the multidimensional nature of insight, and arises again in the forthcoming discussion on delusions and hallucinations.

Relabelling mental events as pathological

"A schizophrenic inmate of an asylum enters a country inn . . . and can only be removed by force for he expects the Queen of Holland, who wishes to marry him to arrive at any moment. He is a little ungainly creature . . . without a single advantage of mind, body or estate. It is impossible that the Queen of Holland should know

anything of this poor patient in Switzerland, and if she did, he would be the last man she would wish to marry. . . . He imagines something absolutely impossible and . . . believes it to be reality. Its contradictions to reality do not exist for him." (Bleuler, 1913, p. 873)

This section deals with insight into psychotic phenomena, especially delusions, defined as a subject's ability to relabel correctly the experience of these unusual mental events as pathological. Such a consideration runs contrary to most early and some modern psychopathologists' definitions of delusions. Jaspers' position has been most influential. He stated that delusions are false judgements held with:

"extraordinary conviction with an incomparable subjective certainty; there is an imperviousness to other experiences and to compelling counter argument; the content is impossible." (Jaspers, 1913 pp. 95-6)

Kraepelin echoed this dogma:

"All objections that one raises to these ideas are received by the patient in a superior, incredulous manner, and glance off from his steadfast conviction without leaving the slightest impression." (Kraepelin, 1913, p. 145)

Jaspers' definition is elaborated by Mullen (1979) and concurs with the American Psychiatric Association's (1980) criteria enshrined in the third edition of the *Diagnostic and Statistical Manual (DSM-III)*. According to its operational definition, delusions are:

"sustained in spite of what almost everyone else believes and in spite of what constitutes incontrovertible and obvious proof or evidence to the contrary."

This position has been challenged recently by authors who do not accept that delusions (and hallucinations (Junginger & Frame, 1985)) are unitary concepts. In addition, and of most relevance here, they contest the notion of absolute conviction (Kendler, 1983; Garety, 1985; Brett-Jones *et al*, 1987). It is assumed that as conviction diminishes so insight increases. So-called overvalued ideas are not discussed here (see McKenna (1984) for review) nor are pseudo-hallucinations. The latter, according to Kräupl Taylor (1981), include by definition false perceptions plus awareness of their unreality, or in other words, the presence of insight.

Varieties of delusional experience

The Present State Examination (PSE; Wing *et al*, 1974), a semistructured psychiatric interview, requires a present/absent rating on psychotic symptoms, although it does leave room for those which are 'partial' or 'questionable'. Strauss (1969) reviewed ratings on 119 patients and found that questionable delusions and hallucinations, that is those with

“intermediate levels of disbelief”, accounted for over half of the sample’s abnormal experiences. He proposed that psychotic phenomena are points on a continuum, a view receiving increasing support (Chapman & Chapman, 1980). Kendler (1983) and Garety & Hemsley (1987) go further and demonstrate that delusions have several independent dimensions. Kendler looked at five dimensions, including degree of conviction, bizarreness, etc., and found that no two correlated significantly. Garety & Hemsley, using visual analogue scales, rated 11 ‘belief characteristics’ such as dismissibility, absurdity and self-evidentness, in a mixed group of deluded patients. Again the number of significant intercorrelations was small and, interestingly, ‘conviction’, scored highly by most subjects, did not correlate with any other single item. One conclusion is that, like the allied concept of insight, delusions are most usefully regarded as multidimensional. It should be noted that both studies used patients with schizophrenic and affective psychoses and although diagnosis did not exert a significant effect, the limited number of cases precludes definitive statements on whether or not there are qualitative differences between delusions in the two syndromes.

The degree of conviction in the deluded, as well as being unrelated to other dimensions of belief, may itself vary considerably. Sacks *et al* (1974) called this the “double-awareness phase” in the recovery from delusions, although similar intermediate states occur during their onset (Maher & Ross, 1984). These states may arise from rapid oscillations between belief and disbelief or because an individual becomes amenable to testing still firmly held beliefs against reality. This aspect was studied by Brett-Jones *et al* (1987) who found that some patients *are* influenced by evidence that disconfirms their delusions. Unfortunately, the process can work in reverse, so that chance external events are construed as confirming a (false) belief. The author argues that both normals and psychotics are most susceptible to confirmatory evidence for current beliefs (see Lord *et al*, 1979; Markovits, 1988) and that change occurs first through the acceptance of an alternative view and then the confirmation of it by experience and reasoning. Accepting the veracity of contradictory evidence for the initial belief is somewhat rarer. Nevertheless, despite the Jasperian assumption of resistance to compelling counterargument, direct confrontation of delusional beliefs with selected patients can be rewarding therapeutically (e.g. Milton *et al*, 1978; Rudden *et al*, 1982).

As well as direct evidence having a persuasive influence on certain patients’ beliefs, hypothetical contradiction (Brett-Jones *et al*, 1987) may be

effective in some cases (e.g. supposing the world does not come to an end when you predict it, what then?). In a pilot study of 18 psychotic day patients (David & Nestadt, in preparation), a four-point scale was used to rate strength of delusional conviction and subjects’ views of the importance of medication and seeing a psychiatrist. The last two items correlated strongly with each other ($r > 0.7$; $P < 0.001$), but weakly with overall psychopathology, as measured by the Brief Psychiatric Rating Scale (Overall & Gorham, 1962; see also McEvoy *et al*, 1989a), delusional conviction, and a consensus rating by three psychiatrists of insight using the PSE definition ($r < 0.5$). In addition, the utility of the question “How do you feel when people don’t believe you?” was examined, a form of hypothetical contradiction. There were five possible answers ranging from poor to good insight: they’re lying; I’m still sure despite what others say; I’m confused and don’t know what to think; I wonder whether something’s wrong with me; that’s when I know I’m sick. Scores on this item correlated with the consensus insight rating significantly ($r = 0.68$; $P < 0.01$) but not global psychopathology ($r = 0.4$). Thus, assessing relative imperviousness to another’s opinion in this way appears to be a useful means of tapping insight without undue confrontation, which can be counterproductive (Milton *et al*, 1978).

Mechanisms of delusion formation

Many authors have proposed that delusions are understandable interpretations of abnormal perceptual experiences. The ability, already mentioned, of one patient to recognise false beliefs in another supports this (Brown, 1973; see Winters & Neale, 1983; Maher & Ross, 1984; Cutting 1985, for reviews). However, this does not explain the primary delusions of Jaspers nor the maintenance of abnormal beliefs in the face of contradictory evidence, implying some aetiological role for disordered thinking (see Arieti, 1974) or disordered common sense (Cutting & Murphy, 1988). There is a strong case for dissecting the logical processes leading up to the formation of beliefs both developmentally (Wellman & Bartsch, 1988) and by comparing normal and psychotic people (Hemsley & Garety, 1986). An effort has been made to do this experimentally: Huq *et al* (1988) showed that deluded subjects predicted future events more readily and on the basis of inferior standards of proof in contrast to normal and psychiatric controls. It is unlikely that all delusional experiences have a single underlying mechanism but perhaps the combination of an abnormal perception that is particularly commanding and a liability to form inferences in an idiosyncratic

way, is the most parsimonious explanation for delusion formation. This is an area which deserves more research.

Epistemology

The question of how we know what we know belongs to the branch of philosophy called epistemology and is outside the scope of this article. However there have been a few attempts to discuss the psychiatric concept of insight in terms of theories of knowledge. Richfield (1954) made use of Bertrand Russell's (1912, p. 25) distinction between two kinds of knowledge: knowledge by *acquaintance* applies to "anything of which we are directly aware, without the intermediary of any process of inference or any knowledge about truths"; knowledge by *description*, on the other hand, is knowledge *about* something, knowing *that* something is true. Richfield argues that the latter type, in isolation, results in what analysts would call intellectual insight or pseudo-insight. Knowledge by acquaintance seems closer to true insight since it is the result of the actual experience of sense-data. However, as soon as abnormal experiences such as hallucinations are considered, we run into problems. For insight into a hallucination to occur, sense-data must be known both by acquaintance (the direct experience) and at the same time by description, that is, an inference must be made that the perception is false (does not arise from a real stimulus). Such epistemological gymnastics arise because few philosophers (other than Jaspers) have been sufficiently informed to tackle the issue of insight in psychosis.

Knowing and not knowing

Although some insight into psychotic phenomena is commonly accepted, it remains mysterious how contradictory beliefs can be maintained simultaneously (Bleuler, 1913). Sigmund Freud (1913, p. 142) claimed:

"The strange behaviour of patients, in being able to combine a conscious knowing with not knowing, remains inexplicable by what is called normal psychology."

He overcame this by introducing a new psychology or metapsychology which could accommodate *unconscious* knowing. As stated in the introduction, this is awkward territory and for the present purposes, best avoided. Unfortunately, the vivid illustrations of this very paradox and the pathos they engender, described by Bleuler as autistic thinking (see quotation, p. 801), and by Sacks *et al* (1974) as "double awareness", plus everyday clinical experience, force us to attend to this baffling problem.

It is belief in the impossible, rather than the merely implausible, which constitutes the greatest challenge to causal psychological explanation. Although impossibility is inherent in Jaspers' definition of delusions, in practice some delusions are less plausible than others. Possibility is a property of the content rather than form of a delusion, an aspect which has been given scant attention in the phenomenology literature (see Winters & Neale, 1983). 'Impossible' in this context can be defined as contravening the laws of Euclidean space and time. Examples include existing in the past as well as the present (e.g. a patient who maintained he was Shakespeare, knowing that the Bard died in 1616 and that we are in the 20th century); having inside one's body something larger than oneself (e.g. a nuclear power station); being in two places at one time (e.g. a patient with reduplicative paramnesia who claimed to be in a Boston hospital and Paris simultaneously – see Weinstein & Kahn (1955)) and so on. Perhaps the most vivid examples are the nihilistic delusions of Cotard (1882). Here, the patient suffering from psychotic depression will state that he or she is dead, cannot speak, or does not exist, despite their very utterance being disconfirmation of such a state of affairs. When pressed the patient may produce an explanatory contradiction, for example "I am a living corpse". This exception to Descartes' proof of existence is explained by Jaspers (1913, p. 94) not in terms of a lack of reason but as a failure of the primary experience of 'Being', in which case lack of insight does not apply. The other cases are less easily dismissed but a similar line of argument can be invoked, namely that primary sense-data, perhaps distorted through a defective perceptual system, when of particular personal relevance, can over-ride, inhibit or coexist with knowledge gained from prior events, logic and common sense. The schizophrenic patient who felt that he had an actual power station inside him, complete with labourers, machinery, cooling towers, etc., knew it was impossible yet was sure it was so. The terror of this reality was, for him, undeniable.

Psychological mechanisms

There are models in neuropsychology which explain dual awareness such as the split brain (Sperry, 1968), where the cognitive contents of one hemisphere are unavailable to the other. Also recognition without awareness can be demonstrated in normals using priming and masking techniques (Marcel, 1983) and in some cases of agnosia. For example patients with prosopagnosia (inability to recognise faces usually due to bilateral parieto-occipital damage) may react

electrophysiologically with a galvanic skin response to a familiar face yet maintain their lack of recognition despite repeated questioning (Bauer, 1984). It must be conceded that these are rather curious instances of knowledge without insight from which it is difficult to generalise.

An example of different levels of awareness with which we are all familiar occurs in relation to memory, when we recognise a name, person, or place which we have been unable to recall. These examples of systems and their contents being "informationally encapsulated" (Fodor, 1983), viewed by many as a property of the normal brain (Marcel, 1983), provide a basis for understanding delusions, and also insight in the presence of psychosis. More studies examining logical inference in deluded (Hemsley & Garety, 1986) and brain-damaged (Bisiach, 1988) subjects and mechanisms of perceptual aberration (Slade & Bentall, 1988) are required before specific explanatory models can be developed.

The conundrum of knowing and not knowing may rest on a false dichotomy. Cognitive behaviourism, which distinguishes instead between knowing and doing, has shed some light on this issue. It is recognised that therapies for phobias and obsessions that rest entirely on altering behaviour, eschewing insight, are highly effective. Modification of the underlying irrational fears and compulsions may then follow suit. Thus there can be a disjunction between thought and action (see Rachman, 1983). In addition, exposure treatment for dysmorphophobia of delusional intensity has been found to reduce delusional conviction as well as avoidance behaviour, despite the erroneous belief being unalterable by rational argument (Marks & Mishan, 1988).

It is a prerequisite of the behavioural approach that patients act against their beliefs regardless of how tenaciously they are held. Therefore, it is less surprising to find that not all deluded patients automatically act on their delusions. Indeed, Hamilton (1974) stated that deluded people are less likely to act on their beliefs than those with overvalued ideas, whose conviction is less firm and whose insight is correspondingly greater. Occasionally patients do act on their delusions, sometimes with catastrophic consequences. Although little is known about which factors determine this, some workers posit that certain kinds of delusions are particularly liable to be acted upon, but demographic variables and other elements of the mental state exert a substantial influence too (Taylor, 1985). It is not yet known in what way strength of conviction is related to delusionally motivated behaviour although research into this difficult area is in progress (Wessely, personal communication).

A novel account of schizophrenic delusions and hallucinations which combines elements of information processing and neuropsychology has been proposed by Frith (1987). He postulates that an uncoupling of thought – or a species of it, willed intention – and action, is a fundamental pathological mechanism. Put another way, the schizophrenic acts, speaks, and thinks without insight into his or her intention.

In summary, despite Freud's pessimism, there are now explanatory models in experimental psychology which can account for knowing and not knowing. If developed, these models would assist greatly in the complex task of the assessment of insight.

Conclusions

The concept of insight goes to the heart of our thinking about psychosis and has important implications for management. At present insight is assessed in a variety of *ad hoc* ways which obscure its meaning and potential. The following scheme is an attempt to clarify this by showing its main components (Fig. 1).

It is suggested that insight has at least three dimensions: (a) awareness of illness, (b) the capacity to relabel psychotic experiences as abnormal, and (c) treatment compliance. An attempt at standardising the assessment is made which relates to each facet of insight (Appendix). More research of a clinical phenomenological kind is needed in order to validate this scheme and to determine the true place of this neglected area in the understanding of mental disorders. Current models in cognitive and neuropsychology may be usefully applied to uncover underlying mechanisms. Finally it is hoped that as clinicians rediscover the concept of insight they will feel more inclined to encourage patients to rediscover it too, allowing them to play a more active role in recovery. As one patient eloquently described it:

"When I get worked up, I often experience a slight recurrence of delusional thoughts . . . I might start testing some theory. Let me see whether that car turns the corner behind me. . . . Then it must be following me! . . . This kind of thinking is dangerous. I can [now] control my mind sufficiently to prevent such thoughts getting out of control and destroying my inner self." (First person account cited by Wing (1975))

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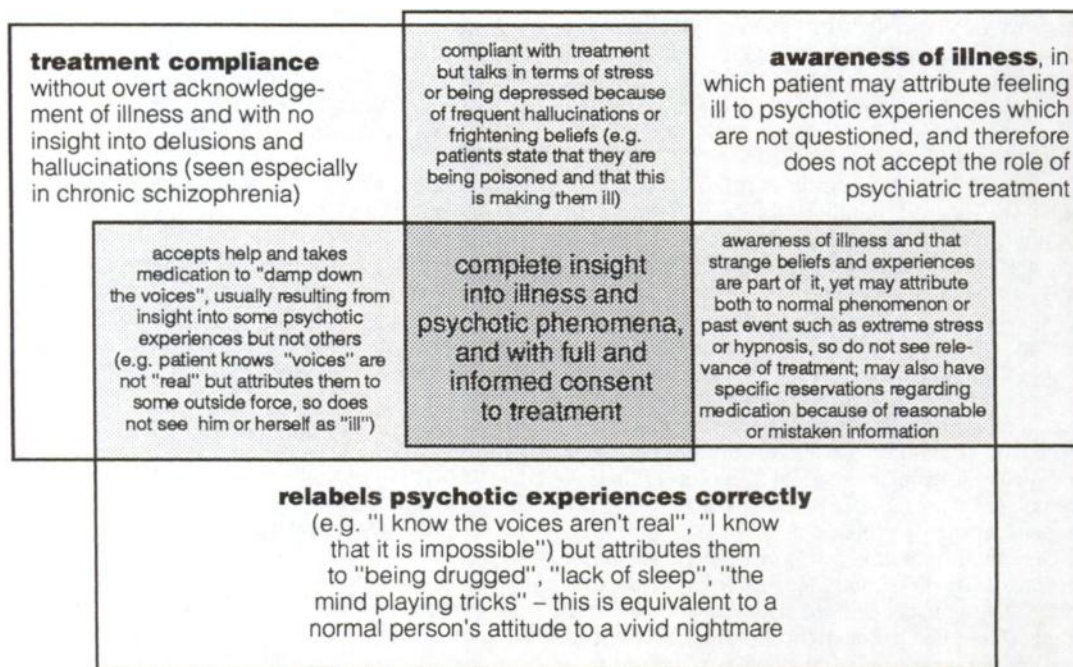


FIG. 1 Diagram showing main components of insight.

Appendix

Schedule for assessing the three components of insight

1a. Does patient accept (includes passive acceptance) treatment (medication and/or admission and/or other physical and psychological therapies)?

Often = 2 (may rarely question need for treatment)

Sometimes = 1 (may occasionally question need for treatment)

Never = 0 (ask why)

If 1 or 2, proceed to:

1b. Does patient ask for treatment unprompted?

Often = 2 (excludes inappropriate requests for medication etc.)

Sometimes = 1 (rate here if forgetfulness/disorganisation leads to occasional requests only)

Never = 0 (accepts treatment after prompting)

2a. Ask patient: "Do you think you have an illness?" or "Do you think there is something wrong with you?" (mental, physical, unspecified)

Often = 2 (thought present most of the day, most days)

Sometimes = 1 (thought present occasionally)

Never = 0 (ask why doctors/others think he/she does)

If 1 or 2 proceed to:

2b. Ask patient: "Do you think you have a mental/psychiatric illness?"

Often = 2 (thought present most of the day, most days)

Sometimes = 1 (thought present occasionally, minimum once per day)

Never = 0

If 1 or 2 proceed to:

2c. Ask patient: "How do you explain your illness?"

Reasonable account given based on plausible mechanisms (appropriate given patient's social, cultural and educational background, e.g. excess stress, chemical imbalance, family history, etc.) = 2

Confused account given, repetition of overheard explanation without adequate understanding or "don't know" = 1

Delusional explanation = 0

3a. Ask patient: "Do you think the belief that . . . [insert specific delusion] is *not* really true/happening?" or "Do you think that . . . [insert specific hallucination] is *not* really there/happening?"

Often = 2 (thought present most of the day, most days)

Sometimes = 1 (thought present occasionally, minimum once per day)

Never = 0

If 1 or 2 proceed to:

3b. Ask patient: "How do you explain these phenomena [the belief that . . . hearing that voice/seeing that image, etc.]?"

Part of my illness = 2

Reaction to outside event/s (e.g. 'tiredness', 'stress', etc.) = 1

Attributed to outside forces (may be delusional) = 0

Maximum score = 14.

Supplementary question (hypothetical contradiction)

“How do you feel when people don’t believe you [when you talk about . . . (delusion or hallucinatory experience)]?”
 They’re lying = 0
 I’m still sure despite what others say = 1
 I’m confused and don’t know what to think = 2
 I wonder whether something’s wrong with me = 3
 That’s when I know I’m sick = 4.

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