Out-of-the-Body Experiences

Implications for a Theory of Psychosis

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Chapter 9
A Theory of Psychosis – II

In this chapter I will consider various possible objections to the theory of psychosis being put forward.

To briefly restate the fundamental elements of the theory: it is maintained that each of the various symptoms of psychosis represents either: (a) the intrusions of Stage 1 sleep processes into waking life; or (b) the *post hoc* rationalisation by the waking subject of these Stage 1 sleep processes, which he or she finds otherwise incomprehensible.

Hallucinations may be taken as representing phenomena that fall into the first category, and delusions may be considered as among the phenomena that fall into the second.

'Psychotic subjects do not think they are asleep'

One objection to the model that might be made is that psychotic subjects themselves do not think that they are liable to fall asleep, even briefly.

In the first place this is not entirely true. Some sufferers do look back on their episodes of active psychosis and feel that they were like dreams, as is suggested by the following remark in a letter by the poet John Clare: 'I cannot sleep for I am asleep as it were with my eyes open & I feel chills and cold come over me & a sort of nightmare [...]'[1]

In the second place, people are not necessarily very good at knowing when they are awake or asleep. Oswald has drawn attention to a phenomenon he calls the 'micro-sleep' – the fact that someone may fall asleep for short periods

[1] Quoted in Claridge, Prior and Watkins 1990, p.132.

without subsequent awareness of having done so. In such cases the subject may strongly deny having slept, although the EEG record shows unambiguous sleep patterns. For example, Oswald reproduces part of the EEG record of a man 'who was supposed to move ceaselessly in rhythmic fashion to synchronized flashing lights and rhythmic music while his eyes were glued widely open. He was not sleep-deprived, yet in a 25-minute period he ceased moving 52 times, each such occasion being accompanied by EEG signs of sleep and slowing of the heart. Questioned afterwards, he was adamant that he had stopped moving only once. He recalled having been aware, early in the 25-minute period, of luminous geometrical patterns but could recall nothing of further mental experiences.'[2]

Moreover, we have seen above that is possible for a subject during a false awakening not to realise at first that he or she is asleep and dreaming. It seems to have taken the subject of mine quoted in the previous chapter several occurrences of the Type 2 false awakening to work out a method for identifying the state and coming to the correct conclusion while she was still in it.

The Type 2 false awakening may be of particular relevance in the present context, because it seems that one of the factors that may initially lead the subject to make a wrong judgement about his or her state is the fact that he or she seems to be seeing their bedroom in front of them when they 'wake up'. The hallucinatory representation of the bedroom may be so realistic that even when they really wake up they may be impressed retrospectively by its imitation of the real thing. It may be that one of the reasons why psychotics lack insight into their sleeping condition when it occurs is the fact that the environment before them, although in fact hallucinatory, appears by and large

[2] Oswald 1962, p.65.

to resemble what they would be seeing if they were really awake in the normal way.

It is also worth drawing attention to the phenomenon of what Green (1968a) has called the 'pre-lucid dream', in which the sleeping subject considers the question of whether he or she is asleep. In some cases the subject comes to the correct conclusion and this initiates a lucid dream; but the subject may equally well come to the wrong conclusion and decide that he or she is awake.[3]

Out-of-the-body experiences, particularly those that occur under conditions of low arousal, also appear to be fertile ground for the misidentification of one's own state as one of wakefulness when in fact one is in Stage 1 sleep. The following case will illustrate this possibility.

> [...] Some years ago, I lived out in the Far East, Penang and Singapore. The year was 1969/1970. I had gone to the swimming club at Penang, it was mid-morning. I had been swimming and was lying at the side of the pool, on my tummy, my head resting on my hands, I had a pink bikini on. I don't remember going asleep, but all of a sudden I was aware of a floating sensation, and a brilliant white light. I looked down and I could see myself laying there, in exactly the same position. I could see the pool, the clubhouse, the road outside the pool on one side, and on the other side of the pool, I could see the rocks and coves of the beach, and the sea, which was very bright and shiny, above all this was still this very bright white light. All this time I had this feeling of just floating and hovering, and I could see for miles, right out to the far horizon on the sea.
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> After several minutes I felt I was gently floating down to my body and I seemed to feel that I sank back into myself.
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> It was a marvellous experience, one I shall never forget and hope I can experience it more in my life. It was not frightening, it was amazing.
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> .

[3] See Green and McCreery 1994, chapter 3.

Despite this subject commenting on the fact that she does not remember going to sleep, I would suggest the following circumstances of the case strongly suggest that she in fact entered Stage 1 sleep: the heat, her prone position (with its connotations of relaxation), and the potential for a degree of fatigue following a swim.

Of possible relevance in the present context is the report of Foulkes and Fleisher (1975) that normal subjects can under certain conditions report mental activity very similar phenomenologically to that of dreams during states that the EEG defined as merely that of relaxed wakefulness. This may be an indication of how close 'beneath the surface' of normal waking consciousness are the dreaming processes which I am suggesting underlie the phenomenology of psychosis.

'The psychotic subject's eyes are open'

A second possible objection to the present theory might be that there is no evidence of the psychotic subject's eyes closing, however temporarily, during episodes of active hallucination in waking life.

However, it seems clear that the closing of the eyes is not a necessary condition of sleep under all circumstances, even if it is the usual precursor of nocturnal sleep in normal subjects. According to Oswald it is quite possible for short episodes of sleep lasting a few seconds to occur while the subject's eyes remain open throughout. He adduces evidence from both his own and other people's laboratories for this phenomenon. In the case of his own experiments, subjects who were exposed to repeated electric shocks, timed to synchronize with loud jazz music and with powerful lights which flashed on and off in front of the subject's faces, showed the electrophysiological signs of sleep even

when their eyes were ‘glued and strapped so widely open that the pupil remained exposed wherever the eye was turned.’[4]

More protracted episodes of sleep with the eyes open can apparently be observed in children, and adults suffering from dehydration. Here is the passage in which he describes these various phenomena; the experiments he is alluding to at the start of the passage are those to which we referred in Chapter 3, in which he was able to induce sleep in four out of a group of six volunteer subjects by administering ‘powerful’ shocks at regular 10-second intervals to their wrist or ankle:

> After these experiments, in which humans went to sleep while receiving electric shocks, various of my professional acquaintances expressed the belief that it could never have happened had the subjects had their eyes open. However, Miles (1929) had reported subjects who fell momentarily asleep while engaged on a visual task and while their eyes were open. In addition, normal adults (Fuchs and Wu 1948) and children (I have often observed my own) will sleep with eyes open and pupil partially exposed. It is common if there exists any degree of bodily dehydration. There seems to be no reason why keeping the eyes open should prevent sleep in response to monotony.
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> In consequence, [in a later series of experiments] subjects’ eyes were glued and strapped so widely open that the pupil remained exposed wherever the eye was turned. They received electric shocks over the lateral popliteal nerve, causing both recurrent sharp discomfort and repeated muscular twitches. The shocks were synchronized with the rhythm of very loud jazz music and also with four powerful lights which flashed on and off in front of the subjects’ faces. Sleep rapidly resulted from this domination of visual, auditory, skin and proprioceptive sensation by one single, overwhelming rhythm (Oswald 1960). In Fig. 31 [showing five 6-7 second samples of the subject’s EEG record, not reproduced here] can be seen the progress into sleep of one healthy male who was not sleep-

[4] Oswald 1962, p.154.

> deprived and who, at first, declared he could not possibly stand the glare of the lights. His pupils became small and remained exposed throughout.[5]

Oswald refers in the course of this passage to the study of Fuchs and Wu which supports the idea of normal adults being able to sleep with the eyes at least partially open. He suggests that the relative unfamiliarity of this concept to Western readers is because of its ethnic aspect: 'Apparently the facial structure of the Chinaman makes him particularly liable to sleep with only half-closed eyes, according to Fuchs and Wu (1948), who studied the sleep of 500 healthy Chinese students.'[6]

The question of motor function

If one was positing REM sleep as the underlying process in psychosis there would indeed be a problem in explaining how actively hallucinating psychotics can continue to display any motor function, since nocturnal REM sleep is characterised by virtual paralysis. However, this is one advantage of positing Stage 1 as the underlying process. Oswald (1962) cites anecdotal evidence of soldiers sleeping while on the march, for example, suggesting that quite complex perceptual-motor skills may be executed in the sleeping state, especially if they are highly practised or habitual ones.

It is worth noting that out-of-the-body experiences appear *prima facie* to be compatible with continuing motor function. For example, one of my own subjects, a professional flute-player, describes continuing to perform at a public concert while undergoing such an experience. She believed her motor skill was actually enhanced, though the performance was 'mechanical' and lacked any layer of interpretation:

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[5] Oswald 1962, pp.151-154.
[6] *Ibid.,* p.58.

> I am a 36 year old flute teacher and this happened about 9 years ago while I was playing in a public concert. Quite often my nerves in such a situation would take the form of lack of concentration with my eyes jumping lines etc – resulting in the inevitable fudges from time to time. On this occasion I felt myself drift out and up to the right. I was about 12" away from the top of my head and at an angle of about 45 degrees. From there, rather than passively watching, that part of me was setting up challenges like – 'I bet you can't finger that trill' or 'lets see if you can do this bit properly'. Strangely, whatever the challenge, I produced, perhaps for the first time ever, a note perfect performance. – It was also *very* boring. My interference in playing the right notes and emotion had both drifted out together leaving my automatic fingering to proceed unhindered.

It may be of interest to compare this case with two other cases of musical performance during OBEs, discussed by Green (1968b). One of these concerned a singer who reported having had an experience of the ecsomatic (OBE) state while performing a song at a music festival. The subject wrote: 'I could hear this voice coming to me from the back of the hall, and I remember thinking to myself – this voice isn't bad, but it's not doing enough with the song – there's no shades of light and dark, no interest.'[7] This comment is perhaps somewhat similar to that of the flute player above; both seem to have regarded their performances as technically efficient, but mechanical.

By contrast, in another case quoted by Green (1968b), that of a piano-player, the subject seems to have regarded her performance in the ecsomatic state to have been enhanced in every respect. The correspondent writes: '[...] the result, musically, was certainly an improvement [...] and so relaxed and easy! [...] I was aware that here at last is the sort of performance I had been aiming at and had not been able to achieve.'[8]

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[7] Green 1968b, p.99.
[8] *Ibid*.

When we consider the motor performance of actively hallucinating psychotic patients, we must bear in mind that we are only postulating brief periods of actual sleep intruding into the waking day. These would be insufficient to disrupt the effective performance of most motor tasks, particularly if they were of a habitual, practised nature and therefore executed at an unconscious level. Symptoms persisting into full waking consciousness and lasting throughout the day, such as delusory beliefs, we regard as the secondary results of the anomalous perceptual experiences.

Communicability

It might be objected that one can communicate with a psychotic person, even during an active phase, whereas this is usually not possible with a dreamer (if we exclude the special case of a lucid dreamer in a laboratory, who has learnt how to signal to the experimenter while in the lucid dreaming state).

Communication with psychotic patients, however, particularly those who have been diagnosed as schizophrenic, is often notoriously difficult. The image of a 'glass wall' between the schizophrenic and his or her non-psychotic interlocutor has sometimes been invoked to express this difficulty. The idea that the schizophrenic may be momentarily asleep during waking hours might indeed be a way of explaining the difficulties of communication which can be experienced with such people.

Some advantages of the theory

The continuities between schizophrenia and manic depresssion

The present proposals make sense of the close links that have been observed between the two main forms of major psychosis, manic depression and schizophrenia. Eysenck indeed maintained that there is only one underlying

process of madness, which takes different forms in different individuals according to their position on his personality dimensions of extraversion and neuroticism.[9]

Regardless of whether one accepts this theoretical model, there certainly appear to be empirical links between the two main forms of psychosis. These include the apparent genetic linkage between the two, manic-depressive patients seemingly being over-represented among the relatives of schizophrenics [ref. to be added]; the frequent interchangeability of the diagnoses when a single patient is considered over a sufficient time-span, a person initially diagnosed as schizophrenic subsequently being rediagnosed as manic-depressive or *vice versa*; and the fact that psychiatry sometimes finds difficulty in assigning a patient to one category or the other even at a particular point in time, resorting to the hybrid diagnosis of *schizoaffective disorder*.

Such empirical linkages are readily understandable if a disorder of arousal is the basic mechanism underlying both forms of psychotic breakdown.

The fluctuating and reversible nature of psychosis

The present model is also compatible with the fluctuating or episodic nature of both forms of psychosis, schizophrenia and manic depression. If the positive symptomatology of hallucinations and delusions are the end-products of an underlying disorder of arousal, it is easy to imagine how they could vary between florid and quiescent phases with the waxing and waning of a person's tonic level of arousal.

In addition, if schizophrenia is fundamentally a disorder of arousal, this would explain an observation stressed by Manfred Bleuler[10], and used by him

[9] Eysenck 1992.

[10] Manfred Bleuler (1903-1994) was the son of Eugen Bleuler (1857-1939). He was director of the Burghölzli psychiatric hospital, Zurich, as his father had been.

to argue against schizophrenia being an organic rather than a functional disorder, namely the apparent reversibility of the schizophrenic process, even after decades of active psychosis:

> In what do the improvements consist, decades after the onset of the disease, when it has seemed that a long and unchangeable stage has been reached? Many times the patients started to speak normally and to show very natural and fine feelings towards certain visitors, certain doctors or certain nurses. Or they started to show quite their original personality on some occasions, during work, during visiting hours, during physical diseases, during festivities, or during group psychotherapy. Others became milder, friendlier, more coherent, not only on particular occasions but in their general attitude in the hospital wards or in foster-families.[11]

Manfred Bleuler suggests that normality always exists *in potentio* alongside the most active psychosis:

> The most complicated and the most normal intellectual and emotional life of schizophrenics is only hidden behind the psychosis, but it still continues. Neither is the schizophrenic way of life anything new in a psychotic. Hidden schizophrenic life goes on in the healthy, in dreams, day-dreams, mysticism, in autistic, archaic, and magical thinking, in the creations of artists and so on. The schizophrenic psychosis can neither be characterized by the final loss of any function nor by the production of any new morbid process. It must be characterized by a loss of equilibrium of two different, in themselves normal ways of living. One tendency is to form a fantastic inner world as a picture of conflicting, contradictory human wishes and human fears, as a picture of contradictory human nature. This form of life is hidden in the healthy and it overwhelms all obstacles in the schizophrenic.[12]

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[11] Bleuler 1968, p.6.
[12] *Ibid*., p.10.

The possible weakness of inhibitory mechanisms in psychotic subjects

Thirdly, the present theory is consistent with the suggestion which has been made by several writers on schizophrenia, that a weakness of inhibitory mechanisms is in some way fundamental to the disorder.

Claridge (1967), for example, suggested that a weakness of homeostatic mechanisms controlling arousal might be a key feature of the schizotypal nervous system. Such weakness of homeostasis was invoked to explain the characteristic variability of schizophrenics when compared with normal subjects in electrophysiological experiments, as well as the extreme states of hyperarousal sometimes characteristic of psychotic episodes.

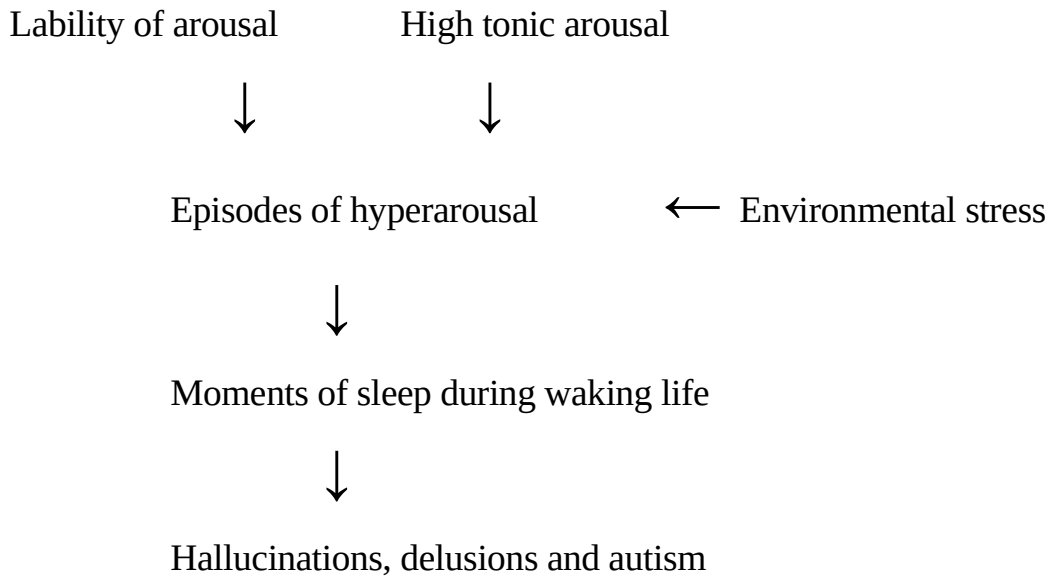
If a relative weakness of inhibitory mechanisms is indeed characteristic of the schizotypal nervous system, this could be at least part of the explanation of the proneness to episodes of hyperarousal which I have suggested underlies psychotic phenomena.

Conclusion

I will conclude by illustrating the main elements of the theory I am putting forward with a chart, in which lines of causation are indicated with arrows.

Figure 9.1

A model of the aetiology of psychosis



The first level states that the predisposing factor in the aetiology of psychotic episodes is a constitutional tendency to hyperarousal. This may be due either to a tendency to lability of arousal or to high tonic arousal.

A contributory factor to hyperarousal in a certain proportion of cases may be long-term environmental stress, which is represented at the second level on the right side of the diagram.

The third level represents the fact that hyperarousal can result in moments of sleep in waking life, in the manner described by Oswald (1962). These 'micro-sleeps' give rise to the phenomena represented in the final level, which are generally regarded as symptoms of psychosis, namely hallucinations, delusions and autism.

The term ‘autism’ is used here in Eugen Bleuler’s original (1911) sense, to refer to a preoccupation with internal rather than external events, or, as Jaspers[13] put it, ‘self-encapsulation in an isolated world’. Autism in this sense may be either a primary or a secondary symptom. I.e. a person may appear autistic, either because he or she is currently undergoing an episode of Stage 1 sleep intruding into waking life, or because he or she is preoccupied with trying to make sense of such an intrusion subsequent to its ending.

[13] Jaspers 1963, p.328