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The Illusion of Reality or the Reality of Illusion
Hallucinations and Culture

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Background. The aim of this review is to integrate research findings on the role of sociocultural factors in hallucinations and to relate these factors to current psychological theory and research.
Method. The literature was surveyed by manual search, and the more reliable studies selected for the review.
Results. One hundred and thirteen publications were scrutinised and 30 of them were included in this review.
Conclusions. Cross-cultural concepts of reality are related to the development and the threshold of hallucinations. Attitudes toward hallucinations tend to affect the emotional reaction to, and the degree of control of, these experiences. Awareness of these attitudes may help the diagnostician to distinguish between pathological and culturally sanctioned hallucinations. It is important that therapists consider the functional significance and meaning of hallucinations as well as the social context and the stimuli associated with them.

Hallucinations are a universal human experience. They have been referred to in medical texts since Biblical times, and among the ancient Greeks they were reported to be even more frequent than today (Jaynes, 1979). Since hallucinations are commonly considered to be related to the interaction of the senses with the physical environment, they would appear to reflect the biological rather than the social or cultural adaptation of the organism. Indeed, hallucinations are considered to be the result of an organic process or of underlying pathology such as brain dysfunction (Assad & Shapiro, 1986) or of a genetic predisposition (Rosenthal & Quinn, 1977). However, it is estimated that only between 20 and 35% of schizophrenic patients demonstrate neurological impairment (Heilbrun, 1993). That hallucinations are not restricted to mental or organic states is demonstrated by surveys of hallucinatory experiences which suggest that 10–25% of the general population have had these experiences at least once in their lifetime (Slade & Bentall, 1988). Posey & Losch (1983) found that 39% of college students reported hearing their own thoughts spoken aloud and 5% had conversations with the voices. In replicating the Posey & Losch study, Barrett & Etheridge (1992) found that 37.2% of a sample of college students reported the same experience. These findings suggest that a comprehensive theory of hallucinatory experience should take into account not only the incidence of hallucinations in psychiatric patients, but also their relatively high frequency in the general population. Although theory and research on hallucinations attempt to discover psychological processes involved in these experiences, social and cultural factors should also be taken into consideration.

This paper attempts to integrate research related to social and cultural factors in hallucinations. The evidence surveyed shows that differences between Western and non-Western cultures in their concepts of hallucinations and reality are reflected in different attitudes towards hallucinations and the emotional reaction to them. Cultural attitudes towards hallucinations seem to affect a person's familiarity with their own fantasy and imagination, and this, in turn, may contribute to the confusion between reality and fantasy. Cultural beliefs may determine the expectancy and level of suggestibility, affecting the frequency of hallucinations. One hypothesis derived from both anthropological and psychological research is that anxiety is related to the persistence and compulsive nature of hallucinations, as well as to the ability of the individual to control them. Finally, cultural differences in the frequency of auditory and visual hallucinations are discussed.

Western and non-Western concepts of hallucinations

In differentiating between hallucinations and other products of fantasy and imagination, much importance seems to have been assigned by psychiatrists and psychologists to the situations, conditions, and circumstances in which hallucinations are reported (Al-Issa, 1977). When, in a particular case, the conditions or processes which precipitate hallucinations are unknown, they are considered in the psychiatric context to be an indication of functional psychosis

and/or schizophrenic disorder. Hallucinations with a known physical basis (acute brain syndrome, intoxication, fever, etc.) are, on the other hand, considered to be a manifestation of organic psychosis rather than due to an unknown schizophrenic process. Similarly, whether dreams are considered as different or are confused with visual hallucinations depends on whether or not these visions occurred in a state of wakefulness or sleep.

In contrast to the psychiatric and psychological view of hallucinations, many non-Western societies make no distinction between hallucinations and other imagery on the basis of the situations, conditions or processes associated with these experiences. All hallucinatory experiences, imagery, dissociative states, and other altered states of consciousness are attributed to a possession by the spirits or a trance where there is a contact between the individual and the spirits (Bourguignon, 1970). However, hallucinations and trance may occur spontaneously, or as an initial stage, in the training of a shaman and the consequent change in social status. These hallucinations are later induced only intentionally, under controlled conditions, where their meaning is shared by the community. Individuals may also develop hallucinations unrelated to rituals or status change, but clearly linked to culturally-based concepts of guilt related to the infraction of rules. The form and the treatment of these guilt-related hallucinations seem to be stylised: among native Hawaiians, violation of a cultural taboo results in visual hallucinations consisting of confrontation with a dead ancestor (called *aumakua*). Making amends for the transgression is sufficient to bring the hallucinations to an end (McDonald & Oden, 1977).

Two concepts of reality

The degree of rationality and the distinction between reality and imagination vary from one society to another, with Western rational scientific society at one extreme and preliterate non-Western society at the other, with many other acculturated societies (i.e. influenced by Western culture) in between. The categorising of experience into reality and fantasy by Western psychiatrists and psychologists is based on a scientific materialistic criterion used to evaluate individuals' reports of their imaginings. When the individuals are not able to tell the difference between their images and their percepts, they are likely to be out of contact with reality or hallucinating.

In many non-Western cultures, 'reality' is used to describe hallucinations, imagery and altered states of consciousness, and people react to these experiences not 'as if' they are real but 'as' real. Consider, for example, the account of the initiation of a Cahuilla boy in California reported by Bean & Saubel (1972):

> "Datura enabled him to glimpse the ultimate reality of the creation stories in the Cahuilla cosmology. The supernatural beings and aspects of the other world that he had been told about since childhood were now brought before his eyes for the ultimate test – his own empirical examination. He has seen them. They are real." (pp. 62–63)

Gollinhofer & Sillans (1976) pointed out that among the Mitsogh tribe in Gabon, West Africa, the ingestion of drugs is believed to permit one to see what is behind things and to unravel hidden 'reality' behind normal everyday appearances. In these non-Western societies, concepts of reality which consider hallucinations as a separate 'reality' make people more aware of the difference between actual perception and imagination during their interaction with the physical environment on the one hand, and their interaction with the spirits during hallucinations on the other.

Concepts of reality and attitudes towards hallucinations

Rational cultures which make a rigid distinction between reality and fantasy tend to consider hallucinations negatively, as they are expected to interfere with daily activities and interaction with the physical environment. Individuals are discouraged from assigning credibility to certain imaginings and they even learn to ignore their existence (Al-Issa, 1977). Such negative attitudes result in people being less familiar with the workings of their own imagination, and thus increase their threshold (i.e. they become less aware of such imaginings and do not often report them). In this situation, the sudden appearance of imagery may, however, lead to anxiety, denial of responsibility, and a tendency to attribute it to outside sources. Unfamiliarity with one's inner world is also expected to increase the experience of unintended imagery (unplanned emergence of imagery), which Hoffman (1986) suggests explains the development of auditory hallucinations. The anxiety associated with negative attitudes towards hallucinations and other imagery results in physiological arousal, which interferes with effective information processing and causes confusion between fantasy and external stimuli (Slade & Bentall, 1988; Heilbrun, 1993).

The idea of a link between the degree of familiarity with one's own imagery and the report of hallucinations has received some empirical support. In one study, Heilbrun (1993) suggested that auditory hallucinations were more likely to occur in those

who were less familiar with the specific properties of their own auditory imagery, and that the more limited their recognition of their own thinking, the more likely it would be misidentified as another's voice. Heilbrun's results showed that auditorily hallucinating patients were indeed relatively poor at recognising their own thoughts. Another study reported by Heilbrun found that patients with auditory hallucinations showed less preference for auditory imagery (i.e. less familiarity) than for visual imagery. Hallucinating schizophrenic patients seem to be relatively deficient in imagery of the modality in which they experienced their symptoms.

Negative attitudes may reduce the patients' trust in others and make them unwilling to report their hallucinations for fear of the stigma of mental illness. A tendency to conceal hallucinatory experiences, particularly at the first stage of an illness, would be expected to make experiences less amenable to the control of social stimuli, and thus become more frequent and unpredictable (Al-Issa, 1977).

In less rational cultures, where the distinction between reality and fantasy is more flexible, people are encouraged to observe their hallucinations, imagery, and other private events. This may result in more introspection and reduce the threshold of hallucinations and imagery (i.e. people become more aware of them and report them more often) than in a rational culture. Since these experiences are positively valued, they tend to be frequently noticed and communicated to others. Frequent indulgence in fantasy and imagination enables people to familiarise themselves with their inner world and learn to identify its distinctive characteristics as different from those of the outside world. This situation is quite similar to the use of self-monitoring in the behavioural treatment of hallucinations (Slade & Bentall, 1988; Bentall, 1990). In self-monitoring, patients are encouraged to identify the sensory properties that mark hallucinations as self-generated experiences, and learn to label their experiences as imaginary rather than real.

Encouraging individuals to fantasise in non-Western societies not only provides them with a comparative basis on which to make clear distinctions between reality and fantasy, but also enables them to discriminate culturally sanctioned imagery and hallucinations from other experiences. It is possible that in these societies the high frequency of reported hallucinations may merely mean that culturally sanctioned hallucinations come more often into the public domain through self-description. Indeed, positive attitudes tend to facilitate social control by reinforcing commonly shared hallucinations and extinguishing those that are individual and idiosyncratic; there will only be a high frequency of the culturally sanctioned hallucinatory experiences. In 1971, Jocano described a village in the Philippines where imaginary noises, smells and other images are reinforced. People saw and heard fairy-like spirits in nearly every tree and pitied him because he was blind to them. These hallucinations were considered by Jocano as part of the peasant 'idiom of cognition'. Ilechukwu (1991) cited many studies indicating that hallucinations are more frequent in the schizophrenia-like psychoses of Africans, giving some support to the hypothesis of a lower threshold of culturally sanctioned experiences in Africa. However, with acculturation in Africa, there may be a shift from traditional hallucinatory experiences to individual ones. Scott (1967), for example, found a change in auditory hallucinations, from instructions to carry out Bantu customs to allay guilt shared by the tribe, to accusatory content which signifies guilt borne by the individual alone. Traditionally, the Bantu knew the identity of the person 'talking' to them (e.g. a dead relative), but this is changing to 'voices' unknown to the individual.

The frequency of hallucinations among subcultures in the West may also reflect different concepts of reality and different attitudes towards these experiences. Afro-Americans have been shown to have higher rates of hallucinations than whites among patients (Ilechukwu, 1991) and normal populations (Schwab, 1977). Among religious groups, Schwab found that black Baptists, black Methodists and Church of God members had the highest number of hallucinations, while the Lutherans, Presbyterians, white Methodists and Jews had the lowest (Schwab, 1977). Subcultural differences in attitudes towards hallucinations in Western countries raise the question of whether cults and religious sects could play a therapeutic role in integrating psychotic patients and helping them to adapt to their hallucinations. On the other hand, culturally sanctioned hallucinations among these subcultural groups may not be amenable to psychological or psychiatric treatment. McDonald & Oden (1977), for example, used behavioural techniques, including systematic desensitisation, to treat visual hallucinations of two native Hawaiian students with no success. However, dealing with the cultural meaning of the hallucinations eliminated them immediately. Western therapies which ignore the meaning of patients' experiences seem to fail in the treatment of culturally sanctioned hallucinations in other cultures.

Cultural beliefs, expectancy and suggestibility

The cultural approach to hallucinations emphasises the part played by learning and experience as well as by social and environmental stimuli in generating hallucinatory experiences. When discriminative stimuli associated with hallucinations are established, the verbalisation of hallucinations then depends upon whether or not the climate of society reinforces the individual in verbalising these responses. Cultural beliefs may increase both the expectancy of the individual and the perceived probability of certain types of hallucinations, under certain culturally controlled conditions. In non-Western cultures, through a long process of socialisation, individuals see and hear what is expected of them, increasing their level of suggestibility for these experiences. Many societies use hallucinogenic drugs to induce a state of hypersuggestibility. Gollinhofer & Sillans (1976) described how the contents of hallucinations are reinforced and modified to conform to the myths and beliefs of the Mitsogho tribe in Gabon during the initiation ceremony. When the male Mitsogho eats iboga, a hallucinogenic plant, he sees animals and other things, but this is only a first step in the initiation; he is then guided towards the correct vision by the ceremony leader and is continually pressed to tell what he sees until he gives the appropriate answer. His expectations of meeting ancestors have already been heightened by hearing about them before his initiation through tales, myths and attendance as an informal spectator at other initiations. This knowledge of what is usually seen and the manipulations carried out by the ceremony leader, as well as a strong motivation to see the 'right' things, determine the form and content of the visions. Consequently, it is extremely rare for the initiate not to respond as expected.

In the West, clinical observations suggest that patients also experience hallucinations only in particular situations when they expect them (Slade & Bentall, 1988). Behaviour therapists have also shown that specific situations, such as being alone or interacting with family members at home, smoking, and social situations requiring decision-making, are associated with the onset of hallucinations (Al-Issa, 1977; Slade & Bentall, 1988). Under experimental conditions, it has been shown that suggestions and the demands of the situation tend to influence the report of hallucinations in samples of both the normal population (Barber & Calverley, 1964) and of patients (Young *et al*, 1987). It was also suggested by Bentall (1990) that the experience of hallucinations during conditions of sensory deprivation, isolation and the exposure to unpatterned stimulation such as white noise may be explained in terms of heightened levels of suggestibility. How the contents of hallucinations might be influenced by expectancy and the demand of the situation is demonstrated in the following case.

> "Three student assistants assumed the role of listeners during daily 20-minute visits to the patient. One of the male students wore sandals, a beard, open collar, and loose jacket. Another appeared as a clean-cut young man with military bearing who carried a Rockwell anti-Semite and anti-Negro pamphlet quite visible to the patient. The third, a friendly girl, tried to appear nondescript in both dress and demeanor. As predicted, the patient reported to the student who dressed like a freedom fighter that she was in communication with Martin Luther King and other similar notables. To the student whom she apparently identified as a Nazi party member, she said she was not really a negro, but a Latin, and that she hated negroes for their filthy ways. She claimed that many of the rallies Rockwell conducted had actually resulted from conversations she had had with him in which he sought her advice. To the girl student, her hallucinatory references were at first about religious figures, then movie stars." (Schaefer & Martin, 1968, pp 145–146.)

In conclusion, it appears that cultural differences may not be found in the processes involved in hallucinations such as expectancy and suggestibility, but in the extent to which social controls influence these processes in various cultural settings.

Control, anxiety and the function of hallucinations

One of the most distressing aspects of hallucinations for Western patients is the inability to predict and control them (Slade & Bentall, 1988). The persistent and intrusive nature of hallucinations may be related to the initial reaction of fear and anxiety to their terrifying contents, or to the idea of being crazy. This interpretation was indirectly supported by Horowitz (1975) who reported that when normal subjects were exposed to stressful films (accidents, body injury, etc.), they had more difficulty dismissing thoughts and imagery about the films than those who saw neutral films. The intrusiveness of these thoughts and imagery seems to be related to the emotional response of the subjects to the films.

Attempts by patients to suppress and control their hallucinations seem also to be related to their negative contents, as well as to the negative emotional responses to these contents (Romme *et al*, 1992). In psychiatric practice, there is a tendency to treat hallucinations without consideration of their functional significance because they are regarded as disturbing experiences. Clinical observations show, however, that hallucinations may have adaptive

functions in normal and psychiatric populations (Miller *et al*, 1993; Romme *et al*, 1992). These hallucinations can be cherished by schizophrenic patients, who may refuse to take neuroleptics because the drugs diminish or eliminate the strength of the 'voice'. Miller *et al* (1993) found a relationship between the ability of the patient to control hallucinations and the wish to continue experiencing them. It is possible that because hallucinations with positive contents are not anxiety-provoking, they may lose their compulsive characteristics and become relatively controllable.

Cultural variations in hallucinations

There are cultural variations in the frequency of different kinds of hallucinations within and between cultures. Auditory hallucinations are the most frequently reported by schizophrenic patients in the West, with visual hallucinations appearing in the most deteriorated patients (Strauss, 1962). In 15 published studies, Slade & Bentall (1988) found that, on average, auditory hallucinations were reported by about 60% of schizophrenic patients (range 25–94%) and visual hallucinations by 29% (range 4–72%).

In a study of schizophrenic symptoms in selected regions of the world, Murphy *et al* (1963) found that whereas visual hallucinations are the least frequently reported in urban Euro-Americans, they are the most frequently reported in Africa and the Near East. They noted, however, that although there were variations in the frequency of different kinds of hallucinations in all the countries studied, auditory hallucinations were never indicated 'infrequent' by the psychiatrist who responded to their questionnaire. The higher frequency of visual hallucinations among psychotic patients was later confirmed in many non-Western countries (Sartorius *et al*, 1986; Slade & Bentall, 1988).

Historical studies indicate that hallucinations of Western patients in the past were predominantly visual, a finding similar to those reported with non-Western patients. Lenz (1964) studied changes in symptoms over the last 100 years in Vienna, and found that there was a decrease in visual hallucinations and an increase in auditory hallucinations. Medieval reports of visions have been well documented (Kroll & Bachrach, 1982). These consisted of either messages from God and the saints or an interaction with demons and angels. As in the non-Western cultures described earlier, during the Middle Ages visions were considered as true perceptions and not as symptoms of mental illness.

It has been suggested that the frequent report of auditory hallucinations among schizophrenic patients in all cultures may reflect the relative involvement of hearing in interpersonal and social interaction (Al-Issa, 1977). If hallucinations express, directly or symbolically, individual or social needs, these needs could be more easily communicated by speech (auditory hallucinations) than by visions (visual hallucinations). In contrast, vision may have positive cultural (social and religious) connotations which increase the frequency of visual hallucinations in some non-Western societies. Although these hypotheses remain unproven, they suggest that cultural changes and westernisation in the developing countries might reduce cultural differences in the report of various kinds of hallucinations. It should also be borne in mind that since episodic confusional psychotic states with visual hallucinations are more common among African patients, organic factors may also play a part.

Conclusions

A study from a cultural angle suggests that the theory and treatment of hallucinations requires a broad bio-psychosocial approach which is not limited to the consideration of biological and psychological factors only, but takes into account the sociocultural context. Culture may affect not only hallucinations experienced by normal subjects or in functional psychosis whose biological basis is not evident, but may also affect other hallucinations involving brain dysfunction or specific neural excitations. As Fabrega (1982, p. 376) commented on hallucinations during the ictal states of temporal lobe epilepsy: "A key point is that, in one sense, a hallucination of this type represents a limbic seizure spread, but, in another sense, it represents a reading of the way the brain codes experience structurally. In other words, self, other and a symbolic view of the world are fused in the hallucination". The study of hallucinations in different cultures would provide an excellent example of how cultural factors intervene between the brain and experience or the brain and behaviour.

With the exception of field studies by anthropologists and historical documents, there is little information about the attitudes of patients, professionals and the general population towards hallucinations in Western and non-Western cultures. In today's multicultural world, research on hallucinations which takes into account ethnicity and religious belief as well as socio-economic status and acculturation would have both theoretical and practical implications. Awareness of culturally sanctioned hallucinations would help the professional to avoid the misdiagnosis of patients from ethnic and minority groups. One issue that needs further study is

how individuals attribute reality status to their imagery and confuse fantasy with external stimuli. Studying the extent to which people in different cultures are familiar with their own imagery and how this relates to the development of hallucinations may throw some light on this issue.

The psychiatric definition of hallucinations, such as that in DSM–IV (American Psychiatric Association, 1994), seems to pay little attention to their persistence and intrusive nature. The hypothesis that negative attitudes towards, and the anxiety reaction to, hallucinations contribute to their persistence and to the inability of the individual to control them needs empirical support. Research on the social and cultural context in which suggestibility and expectancy are related to the onset of hallucinations seems to have implications for the control and termination of the experience. It is important that the therapist considers the situations and stimuli associated with hallucinations, their functional significance and meaning, as well as the resources of the patient to cope with them.

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