

# Auditory Hallucinations in Polyglots\*

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## SUMMARY

In a study of White and Coloured schizophrenic patients, auditory hallucinations were reported to occur in one language only, the earliest the patients had learned.

The patients' mental performance was relatively better when the non-home language was used.

In the psychosis of toxic, drug, and organic origin and in epilepsy, hallucinations may be multilingual, in contrast to schizophrenia. This is of value in differential diagnosis.

A case of paranoid psychosis in which a White man had extensive delusions with auditory hallucinations in his native language, but was non-psychotic and denied his delusions when conversing in another, is described. Hallucinations that alternated between English, Afrikaans and Xhosa in a case of non-schizophrenic hallucinosis is discussed.

It is suggested that a defect of the system for verbal thought is implicated in the production of 'voices' in schizophrenia, involving the coding and processing of language.

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This article reports some early findings in a study of auditory hallucinations in polyglot patients at Groote Schuur and Valkenberg Hospitals, Cape Town. Polyglots are persons who can speak fluently, understand, and think, in more than one language. Hallucinations of human voices are experienced by patients in their own language, the language in which they think and talk to themselves. It is generally assumed that hallucinations in polyglots are multilingual to correspond with the patient's languages and verbal thinking. In fact, this is not so. Auditory hallucinations in polyglots are often confined to one language and in it the associated disorder of thinking may be more severe than in the patient's other languages. Indeed, a patient may be frankly psychotic and express delusions in one of his languages but appear to be non-psychotic when he thinks and converses in another.

Many psychiatric patients seen in Cape Town are bilingual or polyglot. Most of the patients referred to here are Cape Coloured, but as the research proceeds more Whites and Bantu will be studied. In South Africa English and Afrikaans are official languages and are taught in schools. In Cape Town the majority of South African-born Whites can understand each to some extent, and some are fluent in both. According to the individual background, Afrikaans or English will be the major or home language. All the Coloureds speak Afrikaans as a major language and many are fluent in English. Uneducated Coloureds converse in a slang that is incomprehen-

sible to others, but they can switch easily into conventional language. Malays are often bilingual but some speak English only. Bantu patients in Cape Town usually speak Xhosa or another Bantu language and some become very fluent in English and Afrikaans and may speak 3 languages well.

In spite of the growth of Afrikaans, no one can avoid the verbal influence of Anglo-American through entertainment, pop songs, cinema, radio features, advertising and the contemporary slang that is the idiomatic speech of young people. In this way English expressions may contaminate other languages in speech and hallucinations. Cape Town offers an exceptionally rich and interesting field for the study of polyglot psychiatry. Perhaps nowhere else are two languages used so readily, even indiscriminately, by ordinary citizens in their daily life. There are also sizeable groups of Dutch, German, Italian, Greek, Portuguese, Spanish and other settlers from European countries who retain their own language in addition to English and Afrikaans. None of these have been studied for auditory hallucinations.

## AUDITORY HALLUCINATIONS

Auditory hallucinations are a usual phenomenon in schizophrenia among all races, and in patients of all ages. In acute schizophrenia they may be an unintelligible jumble of fragments of sentences or words, songs, pop music, machine and other noises. If the acute attack does not resolve completely but subsides, the inanimate hallucinations usually disappear but the voices remain. Otherwise hallucinations appear insidiously to the patient as his own thoughts spoken aloud, or voices of others, conversations, or remarks directed at him. Psychotics attribute them to some source outside themselves and thus delusions are built up, which indicates that there must be a disorder of the process of logical thinking. But whether the hallucinations spring from such a disorder or *vice versa* has been much and inconclusively argued. In any case, the feedback of hallucinations influences the patient's thinking and impairs his ability to concentrate and to learn. Patients are not concerned that other people are unable to hear the voices nor deaf psychotics that they can hear the voices but are unable to hear anything else.

Auditory hallucinations due to organic causes, for example drugs, toxic factors and epilepsy, disappear as the basic conditions resolves; the patient realizes in retrospect that they were false. Schizophrenics on the contrary, in remission, or free from hallucinations as a result of treatment, may still believe that the hallucinatory experiences were real. Hallucinations and delusions in schizophrenia do not seem to change from their general topic and imagined origin to another though they may extend to in-

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clude others, and when a patient relapses, the previous hallucinations and delusions usually reappear in the same general form, like an out-of-date film or tape recording brought out of store and played again. The rigidity of the psychotic material and its stereotyped nature when it reappears in relapse argue against the hypothesis that a disorder of thinking processes is primarily responsible. Otherwise the material would change and develop according to the patient's continuous life experiences when his mental state is normal between attacks. Yet although the patient may appear to have acquired knowledge in other respects, the hallucinations and delusions even in their formal aspects are not brought up to date or modified correspondingly.

In a normal human there is some arrangement whereby thoughts are codified and processed into language with which he can communicate verbally with himself as well as with others. The verbal thoughts are recognized and identified and they influence the progression of thought. They play a part in all learning and in the formation of memory. Verbal as well as non-verbal thinking is employed by everyone, and probably is essential in the formation of memory patterns. The individual can always recognize the language in which he is thinking verbally.

To understand the stereotypes and some features of schizophrenic auditory hallucinations and the formation of the associated delusions, one can postulate that there is an impairment of the arrangements for verbal processing of thoughts and for the correction and codification of verbal memories. Incorrect and obsolete material is thus fed back continuously into thought during psychotic episodes, thereby impairing the ability to evaluate reality and to think logically as far as this material is concerned, or to learn and to evaluate past experiences reliably. Some such hypothesis would explain the usually poor performance of schizophrenics. Even when they are free from hallucinations, they have some over-all impairment in ability to learn and evaluate concepts, as well as more specific defects in pathological areas of mental life.

## Voices

It is remarkable that schizophrenic patients of many or possibly all races refer to auditory hallucinations as 'voices' and not as noises or statements or conversation. The expression 'Do you hear voices?' is immediately understood by patients and there is an equivalent for this expression in many languages, including Xhosa. This suggests that the hallucinatory experiences are so much alike that they can be characterized by a well-understood common term. The voices may be incomprehensible or may develop into intelligible statements.

Excluding technical, poetical or metaphorical meanings, a voice is a sound vocally produced by a human for the purposes of speech or vocal communication. A voice has various qualities. It may be old, young, male, female, angry, happy, terrified, or otherwise, loud or soft, harsh or musical, and serving a foreign or native language. Although what the voice says may be unintelligible, the

speaker may be recognized by his voice, e.g. in a crowd, with a bad telephone line, or while singing, even by animals as in the famous advertisement for His Master's Voice gramophones. A listener who has had some experience of a foreign language, may well guess the nationality of a speaker from his voice although he may not be able to understand a word of what he says. Children learn the meaning of the word 'voice' from an early age and grasp the concept accordingly. In romantic language the voice is used to suggest a communication between nature and man, e.g. the voice of the sea, the voice of nature, and in religious metaphor God speaks, or uses his voice to the worshipper. A literal belief that spirit voices can be heard is implicit in some forms of religion, in witchcraft and magic, so that in some circumstances there is no sharp boundary between an acceptable belief and psychosis.

Hearing a voice, a listener may recognize the voice and understand what is said; recognize the voice but be unable to understand what is said; be unable to recognize the voice but understand what is said; hear the voice but be unable to recognize it or understand what is said. This also applies to hallucinatory voices in schizophrenia. The listener may be able to recognize the nationality whether native or foreign, and he may be able to deduce some qualities or emotions such as anger or joy or threats from the voice alone. What the voice conveys, depends both on the clarity of the perception and on the listener's previous knowledge and experience. When patients say they hear voices they mean that they are hearing something that they recognize as human, for what they hear is derived from their own self. They can usually identify the language. This is to be expected for it is the language which they themselves use, or in the case of polyglots, the particular language in which the thought processes are most disturbed. The extent to which the hallucinations are incomprehensible, puzzling and bizarre, is an indication of the degree of impairment of the process of verbalization of thoughts as well as of a possible underlying disorder of the thinking process.

## MATERIAL

This preliminary report refers to a series of 30 bilingual patients who had developed schizophrenia with auditory hallucinations, in adolescence or early adult life. They were White, Coloured and Malay, male and female, in- and outpatients at Groote Schuur Hospital, and male Coloured inpatients at Valkenberg Hospital. One Xhosa outpatient will be referred to separately. There were no Indians. All heard, or had heard 'voices'. They could identify the language of the 'voices' and sometimes the source, and a few understood the general meaning of what they heard. Most of the hallucinations were disjointed, fragmentary, and not coherent statements.

The object of the study was to ascertain if polyglots heard hallucinatory voices in one or all their languages; which language was usual; if 'voices' switched from one to another; the effect of phenothiazines; and other related matters. The study was concerned with the language and not the content of the hallucinations and associated delu-

sions. Patients were questioned about the hallucinations, their language background and language preference. Some have been observed for more than two years. As the research proceeds, other classes of patients not studied so far will be included.

## FINDINGS AND EXAMPLES

Patients heard 'voices' in one language only, the first they had learned, regardless of which they now preferred speaking, or habitually used—this will be referred to as the home language. 'Voices' were heard in the home language on all occasions, also when they re-appeared during a relapse or recurrence of the illness. 'Voices' attributed to God and spirits and to persons who, in fact, could not speak it, used the home language. Phenothiazines suppressed the voices as in monoglot patients.

The following examples occurred among our patients:

### Home Language Afrikaans

A paranoid schizophrenic Coloured male teacher, aged 32 years, who taught in English heard Afrikaans 'voices' during his attacks of schizophrenia.

A hebephrenic Coloured male, aged 18 years, heard 'voices' of Queen Elizabeth and Princess Anne, among others, speaking Afrikaans.

A catatonic schizophrenic White female, aged 24 years, married, heard Afrikaans 'voices', even in an English nursing home.

A hebephrenic Coloured male, aged 18 years, heard female 'voices' speaking in Afrikaans and using 'pop' slang and swear words in English.

### Home Language English

A paranoid schizophrenic White housewife, aged 35 years, with Afrikaans friends, heard English voices during fluctuations of the illness for 5 years.

A paranoid schizophrenic White male accountant, aged 38 years, heard English 'voices' attributed to Afrikaans enemies and later to spirits as well, at intervals for 14 years.

A paranoid schizophrenic Coloured male, aged 30 years, who was a lay preacher worked in an Afrikaans office and preached in Afrikaans in a mission, but prayed in English. He heard the 'voice' of God in English.

Patients found it difficult to describe the 'voices' when questioned first in the non-home language—some said they had not heard any, or could not remember. But when asked in the home language, they could discuss them easily, even if they had just denied, in the other language, having heard them. 'Voices' spoke continually to one

Afrikaans patient in the hospital waiting room, but stopped immediately the doctor used English. Some patients appeared to be non-psychotic, logical, realistic, with normal emotional rapport and able to perform normally at business, home or teaching, provided the non-home language was spoken.

A paranoid schizophrenic Coloured female, aged 40 years, very intelligent, left school when 12 years old, but developed her English so that she was able to read and write well, and appreciate serious English literature. She worked continuously for 25 years, living in English-speaking households. For 15 years Afrikaans 'voices' have persecuted her. They come when she reads or converses in English and are controlled by phenothiazines. Her mental performance is normal as long as the 'voices' are suppressed.

The language spoken around a polyglot patient as well as to him, acts as a set or key for his verbal thinking. It will determine which language he will think in, and may imitate the 'voices'. This is illustrated by an unusual case of hallucinosis, which showed no other features of schizophrenia. A Xhosa woman, aged 40 years was very fluent in Xhosa, Afrikaans and English. She was highly efficient and would look after her employer's flat alone for months at a time. For 15 years she heard 'voices' that spoke her thoughts in English or Afrikaans according to which language she had last heard spoken in the street outside. The 'voices' ceased when she spoke to people, listened to the radio, and sometimes when she read, using the other language. When she was alone at night, wakened from a sleep, the 'voices' used Xhosa, her original native language, until she heard English or Afrikaans. She believed the 'voices' were real but was not concerned about how they came about. In other respects she lived and behaved normally.

Auditory hallucinations due to organic and toxic causes and epilepsy can be multilingual. As in delirium, they are distortions of perceptions or of memories. This can be a help in the differential diagnosis between a drug (cannabis) psychosis and schizophrenia in polyglot adolescents. Monoglot 'voices' tend to indicate the latter condition.

A White female with delirium tremens, saw and heard Whites and non-Whites speaking in various languages: English, Dutch, Afrikaans and 'Indian'.

A 20-year-old Australian male with cannabis psychosis saw visions and heard God and others speaking in English, Afrikaans and French, usually with an Australian accent.

A White girl, aged 22 years, with temporal lobe epilepsy, saw figures in white who spoke in English, or Afrikaans, and then disappeared.

A female Dutch settler in Montreal with temporal lobe epilepsy regularly heard carol-singing from Holland in English or Dutch, which initiated a fit.

A Coloured male, aged 18 years, after a left temporal trauma episodically heard his father and mother speaking in Afrikaans and English. He is bilingual but they can only speak Afrikaans.

## DISCUSSION

The cases were true polyglots who used both languages every day, in contrast to linguists who acquired a foreign language for special purposes. There was a preponderance of poorly educated Coloured males whose vocabulary is small, who speak Afrikaans rather than English, and who read little. Coloured women working in domestic service and businesses acquire more general education and hear more English than in their own community. Nevertheless, there were some teachers and well-educated patients, and the findings were common to all. Further research will show whether they apply to well-educated Whites and non-Whites, of superior social status, who are equally fluent in English and Afrikaans.

Some South Africans, of all races, prefer to speak either English or Afrikaans as a status or political symbol, but this did not appear to influence the findings. That the less well established language was not affected was more surprising than that 'voices' were monoglot. It suggests that the coding process for verbal thought was impaired in one language but intact in the other. It is therefore unlikely that a primary disorder of thinking in polyglot schizophrenia is responsible for the 'voice' hallucinations, as has been assumed in monoglot, otherwise it would be reproduced in both languages. 'Voices' are verbal units that carry no meaning until they have been organized into language, and this is how they appear in early-life schizophrenia.

In paraphrenia, and the so-called schizophrenias of later years with well defined delusions, hallucinations convey messages, and corroborate or create the delusions.

Thus there may be a fundamental difference between early and later-life schizophrenics, and their auditory hallucinations may have different origins. Older displaced persons, refugees and settlers who speak little of the language of their new country, sometimes develop paranoid delusions. These are aggravated by native mistrust and social isolation due to inadequate and faulty communication. This reaction was frequently observed in England among Poles, Hungarians, Yugoslavs and other refugees. Hallucinations were sometimes in the 'new' as well as the home language.

Twenty years ago, in New York, I examined a 50-year-old Jewish settler who heard American 'voices' threatening to arrest him and take his little shop. But when questioned in Yiddish by a Jewish doctor, he would deny the delusions and say he heard no 'voices', and had no enemies. The experiment was repeated several times with the same result. He thus appeared to be psychotic and hallucinated when the 'new' language was used for communication, but normal in his home tongue, and presumably in verbal thinking with it. The feedback of what the 'voices' said influenced his thoughts and the development of delusions.

Adult refugees and settlers, of course, are not polyglots.

The reason why polyglot patients will not discuss hallucinations in one language is not, as some psychiatrists have remarked, because they find it distressing, but because linguistically they cannot do so. Unless what the 'voice' says is clearly intelligible it cannot be translated into the other language, although it may be revived in the home language. The role of the language environment, i.e. the language spoken to and around the patient, in deciding in which language his verbal thinking will take place is of great significance. It should have application in therapy and rehabilitation. A patient can be more usefully approached through the minor language in which he is not hallucinated and in which his thinking is more realistic. Conversely, the environment of the home language tends to perpetuate hallucinations and fix delusions.

Bantu patients often accept 'voices' as real spirit phenomena, and may consult the witch-doctor before the psychiatrist. They tend to be isolated in an urban community by their special language. Their cultural customs and attitude to psychotic illness can be understood only by a White doctor with long experience of these patients. Yet all the Xhosa-speaking patients who were questioned in hospital, using English, Afrikaans or Xhosa through interpreters, said they heard the 'voices' in Xhosa only.

Although there appear to be no publications on the subject, research in polyglot psychiatric patients should give new information about schizophrenic processes and auditory hallucinations.

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