LINGUISTIC COMPETENCE AND PSYCHOPATHOLOGY: A CROSS-CULTURAL MODEL

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SUMMARY

The present paper discusses the possible role of linguistic competence in determining the manifest psychopathology of schizophrenia. It is hypothesised that the linguistic competence may be a significant determinant of psychopathology and may explain the differences in the manifest signs and symptoms, course and prognosis between the various sub-types of schizophrenia and may explain the cross-cultural differences in the phenomenology and outcome of the disease. It is proposed that research should be undertaken in measurement to linguistic differences to test out the above hypotheses.

"Every human society has a language and no animal society has one" (Brown, 1965, p. 246). This is perhaps the most important and unique difference between man and other animals. Of course, it is agreed that some animals do possess ability to communicate through the use of signs, but they do not possess a language in so far as language connotes a system of symbols, arbitrarily agreed upon by the members of a community. Lately, psycholinguistics has come to be recognized as a discipline in its own right as a system, to investigate the implications of linguistics to the psychological processes, both normal and abnormal. Linguistics is conveniently subdivided into four areas, namely, phonology, morphology, syntax and semantics; concerned respectively with the sound system, words, organization of words into sentences and the meaning. A brief introduction to some of the basic concepts of linguistics may be relevant here in aiding understanding of the concepts which will be developed in this paper. A phoneme is the unit of elementary sound, vowels and consonants, and is roughly equivalent to letters of an alphabet. There are 15 to 85 phonemes in various languages, 45 in English. Morphemes are the smallest elements to which meaning can be attached. They are roughly equivalent to words, although a number of words have more than one morpheme. To illustrate, suffixes of a word are generally separate morphemes, e.g., cat/s, chase/s, and simple/st. There are clear limitations on the number of distinct sounds that humans can produce and identify, and on all possible combinations of phonemes. The cross-cultural differences in phonemes are possibly learnt, and are result of the differences in phonetic requirements of the language. Syntax is concerned with sequencing rules and hierarchical structure. However, "there are logical arguments which make it seem unlikely that rules of this sort (syntactic rules) can ever yield a complete grammar of a real language" (Brown, 1965, p. 283; Chomsky, 1957; Gleason, 1961). Thus in language, "fewer than one hundred sounds which are individually meaningless are compounded, not in all possible ways, to produce some hundreds of thousands of meaningful morphemes, which have meanings that are arbitrarily assigned, and these morphemes are combined by rule to yield an indefinite set of sentences, having meanings that can be derived" (Brown, 1965, p. 248). The relationship between morphemes, words and
parts of sentence can be schematically shown as follows (Brown, 1965).

The/dog/chased/the/cats  Morphemes
The/dog/chased/the/cats  Words
The dog/chased the cats  Subject-verb-object
The dog/chased the cats  Subject-predicate
The dog chased the cats  Sentence

Language is a symbolic system. A morpheme symbolically represents something in the object world. This symbolic representation can be at various levels of concreteness and abstraction. Language can be considered analogous to a ‘map’ which represents objective reality, the ‘territory’. Language is meaningful practically in terms of the objective reality that it stands for; however, although words basically symbolically represent something in the object world, they sometimes assume a quasi-real property and the person responds to them as if they were real.

Cross-cultural differences in language

A study of psycho-linguistics shows how the various communities of man differ from one another in type and organization of language used. Not only there are hundreds of languages, each with its own distinctive phonetic system developed to serve its particular needs and morphemes to denote the relevant objective reality; language differ from one another widely in such basic things as the classification of words and rules of syntax. Even the simple classification of words into nouns, verbs, adjectives, etc., and division of sentences into ‘subjects’ and ‘predicates’ which is common to languages of the Indo-European family are not universal. In some languages word order is not a very important grammatical signal. In spite of claims to the contrary, the phonetic system of one language is neither superior nor inferior to that of another language. Each has developed to meet the phonetic requirements of that language. Different words have developed to distinguish between similar things if the different types evoke a different attitudinal reaction. Thus, there are at least half-a-dozen equivalent forms of ‘uncle’ and ‘aunt’ in Hindi as opposed to only one each in English, because in India a different code of conduct and a different attitude goes with each type of uncle or aunt. The differentiation between one and the other is important. Thus there are 92 varieties of rice in Hanunoo in the Philippines and 92 varieties of engineering at the M.I.T. In the cattle complex of East Africa where cattle determines a man’s rank, “Evans-Pritchard, for example, cites forty different words, each of which applies to the colour of a particular kind of cow or ox” (Evans-Pritchard, 1940, pp. 41-45). A single word denotes both blue and green in Latuki. Bororo of Brazil have names for individual species of parrots but no term for parrots in general. Eskimos have separate names for different types of snow, whereas, in English such names are limited to four or five... we name each thing so as to categorize it at its level of probable non-linguistic equivalence” (Brown, 1965 p. 319). The world close-up is more differentiated than the world at a distance. The important difference between languages is the difference between noun and verb. Noun is defined as name of a “person, object or thing”, whereas, person and object are more explicit, “thing” remains undefined and ambiguous. That nouns may represent long-lasting events and verbs short-lasting ones, is illustrated by the difference between English and Hopi is handling of the topic of ‘running in the third person’. We shall shortly examine the relationship of cross-cultural differences in language and thought.
Language and Thought

Benjamin Whorf (1950) put forward the hypothesis, known as the Sapir-whorf hypothesis that language and thought go together; that language limits (and facilitates) particular concepts; consequently, if two languages differ, then the concepts available also differ. Each language embodies and perpetuates a particular world view. "When linguists became able to examine critically and scientifically a large number of languages of widely different patterns, . . . they experienced an interruption of phenomena hitherto held universal, . . . It was found that the background linguistic system (in other words, the grammar) of each language is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the programme and guide for the individual mental activity, for his analysis of impressions, for his synthesis of his mental stock in trade" (Whorf, 1961).

Is language necessary for thinking and for acquiring a world view? Language certainly helps remembering (Lantz, 1963) and emoting. Do children have most of the concepts like trucks, trees, and flowers; and walking and running; and relations of spatial containment before they learn how to express them? It is reasonable to assume that the concepts are socially mediated and the mediation is linguistic. If this is true, "language is a determinant of the conception of reality, a mold shaping the mind as well as a code connecting minds" (Brown, 1965, p. 314). "If we may be permitted a guess it is that in the history of a culture the particular features of the language and thought of a people develop together" (Brown and Lenneberg, 1954).

Do the differences in languages across the world connote differences in world-view and thought? Whorf hypothesized that language causes a particular cognitive structure. Grammar is, to some degree, a theory of reality. "... as U. N. translators observe, different languages seem to imply different attitudes—the English pattern is said to be pragmatic and inductive, the French generalizing and deductive, the Russian intuitional and particular" (Lotz, 1961). Of course, words in a particular language have to be limited to things and events experienced in the particular culture. One of the most frustrating tasks in translating from one language to the other is in translating words which have no equivalents in the other language; in other words, things which fall outside the experimental repertoire of people using the other language. Still more difficulty is encountered where some basic concept in temporal and spatial relationship is different.

The differences in the world view between languages may be in such simple things as number of colours named to more complex differences in temporal and spatial relationships. Time can be taken as a flowing system or as a static interval. Some languages may permit greater precision in quantitative or qualitative differences than others. Concept of possession may differ from one language to the other. "Generally, it is agreed that the language promotes greater precision in expression of those things that matter most in a particular society."

Differences in language and thought between India and North America

At the outset, it may be stated that both Hindi, the most popular language of India, and English belong to the Indo-European family of languages, hence differences between the two must be relatively less pronounced. However, in the clinical setting, Western workers dealing with Indian patients in India as well as in the immigrant Indian communities in the Western countries remark on the lack of precision in the language of the Indian. One ex-
periences much more difficulty in obtaining an accurate and precise history from the Indian patients and their relatives. The patient is not sure of the chronology of his life and disease events, e.g., date of birth, date of marriage, date of onset of illness, dates of important events in the personal life, etc. All the events seem to have taken place sometime in the past, without the patient being very clear about the temporal relationship between them and the present. It is a common experience that it takes much greater time and effort to obtain the same history from an Indian patient as opposed to a Western patient. Those who have to deal with both Indian and Western patients in their everyday practice, for example psychiatrists working in those cities in England which have large immigrant populations are most keenly aware of such differences and they often explain it on the basis of the ‘lower intelligence’ of the Indian. However, if intelligence is normally distributed and if there are no significant racial differences in intelligence, how can we explain the above observation? We can explain it on the basis of illiteracy, and as illiteracy is widespread in India (approximately 70 per cent of Indians are illiterate) and as education is primarily concerned with acquiring greater familiarity with and proficiency in the use of linguistic symbols, it is reasonable to assume that an illiterate person will have at his command a much more limited range of linguistic repertoire with which to remember, think and express himself. Another explanation that can be put forward may be that precision in remembering such details may not be important in India, may not be socially valued. A third explanation that can be put forward is that the languages may be different in the amount of precision they permit. Perhaps, the above two explanations may be inter-related. Language permits greater precision in things that matter most.

as an Indian will be aghast if one type of aunt (father’s sister) is by mistake addressed as another type of aunt (father’s brother’s wife) he would not bother very much if he remembers a particular event as having taken place 25 years ago which on closer enquiry is proven to have taken place 10 years ago, or that he thinks that he is 60 years old whereas his actual age is only 45 years. Perhaps this is related to the concept of time. There may be considerable differences in the understanding of temporal and spatial relationships. It is sobering thought that, although cosmology is considered to be one of the cultural ‘universals’, and although Indian history is full of instances of socio-political intercourse with other people, no atlases or maps existed in India till after the contact with the Western world in the 16th century. As to time sense, a number of differences are interesting. Indian psychologists who try to translate psychological inventories from English into Hindi are struck by the difficulty in translating the exact tense of a particular statement. Most noteworthy, there is no exact equivalent to the English (present and past) participle tense. This is specially important in translating instruments, which measure anxiety ‘trait’ versus ‘state’. There is just no equivalent of ‘how often’ (‘How often do you drink?’ can at best be translated as ‘How many times do you drink in one week/one month, etc.? ’). English, perhaps is exceptionally rich in terms denoting quantitative differences of physical attributes.

Another hypothesis can be put forward that the Indian is too busy living and experiencing the event for the present, rather than chronicling it, processing and storing it away for retrieval at a point of time in the future.

Finally, a question can be raised if all of the above can be explained on the basis of just one variable, namely distri-
bution of obesessionality in the culture. Some people may be just more thorough in everything. Compulsivity is selective. Similarly, people who are not generally thorough may be thorough in certain specific aspects of their life. Let us look at the activities associated with religious ceremonies amongst the Hindus. The steps have been described in very great detail and are followed rigorously in practice. The Western man is becoming more and more obsessional in things that seem to concern him most at the present juncture in history; namely material goods and efforts and resources that go into their production, processing and utilization.

Schizophrenia: Cross-cultural differences in phenomenology and outcome

Schizophrenia remains, in many ways, one of the most important psychiatric illnesses known to man. Although the prevalence and lifetime risk is lower than that of some other illnesses, the fact that it afflicts people in the prime of their life and often causes more or less continuing impairment in the social and emotional functioning of those afflicted, thus causing considerable disruption and misery, makes it one of the most significant psychiatric illnesses.

Two other aspects of schizophrenia are especially worth taking note of for the sake of subsequent discussion. Firstly, from what we know, chances are that it is equally widespread all over the world and equally affects all societies, cultures and communities. The other aspect worth noting is that the disease does not seem to occur in animals other than man, at least in the manner in which it is known to manifest in man. This, of course, is hardly surprising as disorders of thought considered to be the most significant disturbance in schizophrenia can manifest themselves only in the form of language, and that lower animals do not possess an abstract symbolic system that we can call language. In other words, for schizophrenia to manifest itself, it is absolutely necessary that the animal must possess a language. However, it also seems to be equally true that although schizophrenia is equally prevalent all over the world, there are important differences across cultures in its symptomatology and outcome. As research data and clinical reports have increasingly been pouring in from all over the world, people have become more and more aware of such differences. It is said that the schizophrenic patient in the developing world more often shows catatonic symptoms, makes greater use of body language and correspondingly less frequently manifests psychic anxiety and highly systematised and elaborate delusions. In the less developed world, the patient is more likely to present with general perplexity and confusion without it having crystallised into formed delusions.

Of course, it is obvious that differences in religious and cultural beliefs and in the nature and complexity of material culture will influence the content of delusions and hallucinations. In addition, observers from both Africa and India agree that paranoid formations in schizophrenic patients under their care are less systematised than in Euro-Americans (Hoch, 1959; 1961). Wittkower and Dubreuil (1971) feel that "the paucity of delusional content in these patients may be due to their lack of education". They have also commented that (as regards hypochondriacal sensations in depression) "incapacity to give verbal expression to feelings may account for their frequency in depressed preliterates". The monumental International Pilot Study of Schizophrenia (WHO, 1973, 1979) has also pointed out differences between the western and the eastern countries which collaborated in that study. In addition to the differences in symptomatology, the
differences exist in the short to medium-term outcome. "While chronic schizophrenic catatonic states have become rare in Europe and America, they are common in India and other Asiatic countries" (Whittkower and Dubreuil, 1971). Part of the explanation may lie in the philosophical tenets of Hinduism and Buddhism which consider emotional withdrawal as an acceptable mode of reacting to difficulties as argued by Wittkower and Dubreuil. However, as will be argued in the present paper, it could be at least partially influenced also by the differences in the linguistic competence.

We owe to Arieti (1955) an innovative and enlightening dynamic longitudinal view of the mental operations in schizophrenia. Arieti has divided the course of illness into four stages; namely, the first stage ranging from a period of intense anxiety and panic to confusion to the point where the patient achieves psychotic insight, the second or advanced stage characterised by the florid psychotic symptoms of delusions, hallucinations, etc. the third or pre-terminal stage where hallucinations and delusions have disappeared and have been replaced by severe dis-integration of thought process and the hoarding and self-decorating habits and the fourth or the terminal stages characterised by primitive oral habit of tachyphagia and perceptual alterational Here we are primarily concerned with the first or the initial stage which Arieti has subdivided into three parts:

"Thus, we have seen a sequence of stages: first, a period of intense anxiety and panic; second, a period of confusion when everything seems strange and crazy; and third, a period of psychotic insight" (Arieti, 1955, p. 331).

Linguistic competence and phenomenology and outcome of schizophrenia

In this paper I would like to put forward the hypothesis that Linguistic com-
the patient progress from intense anxiety and confusion to psychotic insight? To start with, the patient is just confused and bewildered. There are perceptual alterations because of which familiar objects and situations suddenly appear strange, light and sound keep on changing in intensity in a random fashion, things appear to be moving at unpredictable and erratic rates etc. There is a vague feeling of impending disaster or doom and a vague perplexity and fearfulness. At this point psychotic insight dawns upon him. Aha! I am afraid not for no reason, but because people in general or so-and-so are conspiring to harm me. Once delusions have been formed, it can undergo further elaboration toward making it more systematised and pervasive. Irrespective of whether differences in linguistic competence between people and across cultures are due to differences in the precision that a particular language permits or to differences in literacy or compulsivity, the person with greater competence is likely to develop more elaborate delusions. Differences in linguistic competence may thus explain cross-cultural differences in schizophrenia and differences from patient to patient in the same culture. Thus, language may take over from intense anxiety or an organic defect and set into motion a reverberating cycle, with increasing elaboration of delusions being one of the results. The delusions may, in turn, cause further anxiety and excitement, thus adding to the vicious cycle. Similarly, the thought process can create confusion regarding reality and volition, thereby producing catatonic features. The greater linguistic competence on part of the patient may perpetuate the elaboration of the delusion into more and more complex and intractable delusions, thus giving rise to both systematization of delusions and a poorer prognosis as highly systematized delusions may be more entrenched and less amenable to therapeutic change.

It may be possibly hypothesized that schizophrenia may be just one or two diseases and the precise symptomatology by which we presently categorise it into the clinical subtypes may depend to a large extent on the patient’s linguistic ability and competence. It may be that one patient shows paranoid features because he has a high linguistic competence and the other catatonic features and somatic symptoms because his low linguistic competence does not permit him to elaborate his psychotic anxiety into a delusional system.

The question can be raised that concerning the impairment in the use of language suffered by the schizophrenic patients, would it be justified to study their language competence and to relate it to the symptomatology. Chomsky (1965) has emphasized the distinction between competence (the intrinsic knowledge) and performance (use in actual situations). What is impaired in the schizophrenia is the language ability and not the linguistic competence. Linguistic competence thus is the potential available with the person. In schizophrenia, "there is evidence that the underlying language ability (competence) is not impaired" (Koplin, 1968).

CONCLUSION

It is suggested in this paper that it may be profitable to study the differences in linguistic competence between patients to see if there are significant differences between the various clinical groups and between different societies. The first major problem would be to develop reliable and valid tools to measure linguistic competence with sensitivity to pick out the relevant differences. The tool should also have cross-cultural applicability, so as to enable comparisons between linguistically disparate communities.

Language is an important attribute of man which not only is important for communication, but also as an aid to thinking.
Although its contribution to the thinking process is immense, the same language which permits logical and realistic deduction, can cause, if some basic disturbance exists in the brain processes, a derailment of thinking which can create a vicious cycle to create, perpetuate and augment psychopathology. How much of this takes place in mental illness in man needs to be seen.

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