

## Chapter 5

# PSYCHOLINGUISTICS

(1960s)

Psycholinguistics is a recent branch of linguistics developed in the sixties. It is the study of interrelationship of psychological and linguistic behaviour. It uses linguistic concepts to describe psychological processes connected with the acquisition and use of language. As a distinct area of interest psycholinguistics developed in the early sixties, and in its early form covered acoustic phonology and language pathology. But now-a-days it has been influenced deeply by the development of generative theory and its most important area of investigation has been language acquisition. It has raised and has partly answered questions such as how do children acquire their mother tongue? How do they grow up linguistically and learn to handle the registral and stylistic varieties of their mother tongue effectively? How much of the linguistic system that they ultimately command are they born with and how much do they discover on the basis of their exposure to language?

In its early form, psycholinguistics covered the psychological implications of an extremely broad area, from acoustic phonetics to language pathology. Now-a-

days, certain areas of language and linguistic theory tend to be concentrated on by the psycholinguist. Much of psycholinguistics has been influenced by generative theory and the so-called mentalists. The most important area is the investigation of the acquisition of language by children. In this respect there have been many studies of both a theoretical and a descriptive kind. The descriptive need is impelled by the fact that until recently hardly anything was known about the actual facts of language acquisition in children, in particular about the order in which grammatical structures were acquired. Even elementary questions as when and how the child develops its ability to ask question syntactically, or when it learns the inflectional system of its language, remained unanswered. And a great deal of work has been done recently on the methodological and descriptive problems related to the obtaining and analysing information of this kind.

The theoretical questions have focussed on the issue of how we can account for the phenomenon of language development in children at all. Normal children have mastered most of the structures of their language by the age of five or six. The generative approach argued against the earlier behaviourist assumptions that it was possible to explain language development largely in terms of imitation and selective reinforcement. It asserted that it was impossible to explain the rapidly or the complexity of language used by the people around them.

Psycholinguists therefore argue that imitation is not enough; it is not merely by mechanical repetition that children acquire language. They also acquire it by natural exposure. Both nature and nurture influence the acquisition of language in children. Children learn first not items but systems. Every normal child comes to develop this abstract knowledge of his mother tongue even of a foreign language to some extent for himself; and the generative approach argues that such a process is only explicable if one postulates that certain features of this competence are present in the brain of the child right from the beginning. In other words, what is being



claimed is that the child's brain contains certain **innate** characteristics which 'pre-structure' it in the direction of language learning. To enable these innate features to develop into adult competence, the child must be exposed to human language, i.e. it must be stimulated in proper to respond. But the basis on which it develops its linguistic abilities is not describable in behaviourist terms.' (David Crystal, *Linguistics*, p. 256)

The boundary between psycholinguistics and linguistics is becoming increasingly blurred as the result of recent developments in linguistics which aim to give psychological reality to the description of language. <sup>is a Psychologist</sup> Chomsky regards linguistics as a subfield of psychology, more specially the cognitive psychology. His view of linguistics, as outlined for instance, in his book *Language and Mind*, is that the most important contribution linguistics can make is to the study of the human mind. The bonds between psychology and linguistics become more and more strong by the extent to which language is influenced by and itself influences such things as memory, motivation, attention, recall and perception.

Differentiate b/w  
Similarly psycholinguistics and sociolinguistics are coming closer since the realization that merely grammatical competence is not enough; we have to aim at communicative competence too. Whereas psycholinguistics is language and the mind, sociolinguistics is language and community. In other words, psycholinguistics can be said to deal with language and the individual, and sociolinguistics with languages and society.

## SKINNER AND BEHAVIOURISM

B. F. Skinner and his colleagues, (a group of psychologists known as behaviourists), say that learning, or a change of behaviour on the part of the learner, is brought about by a process known as operant conditioning. search

Conditioned behaviour is behaviour which is the

result of repeated training. Operant means that it is voluntary behaviour; it is the result of the learner's own free-will, and is not forced by any outside person or thing. The learner (or operator) demonstrates the new behaviour first as a response to a system of rewards or punishments, and finally as an automatic response.

### Experiment

In a typical experiment, a rat is put in a box containing a bar. If it presses the bar, it is rewarded with a pellet of food. Nothing forces it to press the bar. The first time it probably does so accidentally. When the rat finds that the food arrives, it presses the bar again. Eventually it finds that if it is hungry it can obtain food by pressing the bar. Then task is made more difficult. The rat only gets rewarded if it presses the bar while a light is flashing. At first the rat is puzzled. Eventually it learns the trick. Then the task is made more difficult again. This time the rat only receives food if it presses the bar a certain number of times. After initial confusion it learns to do this also. And so on, and so on.

Operant conditioning can be summarised thus  
 Provide/motivate <sup>7</sup> STIMULUS <sup>tricky</sup> → RESPONSE → REINFORCEMENT  
 → REPETITION

Skinner and the behaviourists distinguish between positive and negative reinforcement. Praise and rewards are positive reinforcement, and rebukes and punishments are negative. Experiments have shown that positive reinforcement works much better in bringing about good learning. It also goes without saying that a positive reinforcement classroom is a happier place in which to be.

Skinner eventually applies his theory of learning through operant conditioning to the study of how humans learn language.

Behaviourists believe that learning a language is no different from learning anything else; it becomes a habit



formed by the stimulus-response-reinforcement-repetition process. Let us look.

The behaviourists also claim that we learn by imitation and association. For example, a young child hears the word 'biscuit' every time he is given one. He soon associates the word 'biscuit' with the actual thing. He then makes this sound himself, imitating what he has heard. His parents are pleased that he has 'learnt' another word and so his response is reinforced.

## CHOMSKY AND THE MENTALISTS

Chomsky subscribes to an entirely different view of learning from that of the behaviourists. He follows a mentalist approach, based on cognitive learning. By cognitive learning is meant the way in which we relate new events or items of knowledge to other concepts which are already present in our minds. By mentalism we mean something which involves the mind and the thought processes.

not a habit  
Chomsky and his mentalist followers claim that a child learns his first language through cognitive learning. They claim that language is governed by rules, and is not a haphazard thing, as Skinner and his followers would claim. According to Chomsky, the child is born with a mental capacity for working out the underlying system to the jumble of sounds which he hears. He constructs his own 'mental grammar' and imposes it on all the sounds reaching his brain. This mental grammar is part of his cognitive framework, and nothing he hears is stored in his brain until he has matched it against what he already knows and found a 'correct' place for it within this framework.

impossible  
Chomsky argues that language is so complex that it is almost incredible that it can be acquired by a child in so short a time. He argued that the only explanation is that the child is born with some innate mental capacity which helps the child to process all the language which he hears. This he called the Language Acquisition Device, and he saw it as comprising a special area of the brain.

what is abbreviation of LAD

whose only function was the processing of language. This function, he argues, is quite separate from any other mental capacity which the child has.

We must remember that when Chomsky talks about 'rules', he means the unconscious rules in a child's mind. These rules enable him to produce grammatical sentences in his own language. Chomsky does not mean that the child can describe these rules explicitly. For example, a four or five year old child can produce a sentence like I have finished my lunch; he can do that because he has a 'mental grammar' which enables him to form correct present perfect structures and also to use such structures in the right or appropriate situations. But he cannot say the present perfect tense is formed by 'have' or 'has' plus a past participle verb, and is used in the following situations.....

The evidence in favour of Chomsky's view that the child 'builds his own grammar' by means of some innate mental capacity is very strong. Most psychologists of language (or **psycholinguists**, which is what you will become as a result of studying this course) agree with this theory. However, few people are extreme mentalists or extreme behaviourists. Behaviourism may not tell us much about the way in which we learn our mother tongue, but it can point the way to successful strategies in the learning of a foreign language when we are older.

## TYPICAL QUESTIONS

1. *What is psycholinguistics?*
2. *Write briefly on language acquisition.*
3. *Distinguish between the empirical (behavioural) and rationalistic (mentalistic) approach to language acquisition.*
4. *'The first things that are learned are principles—not items: principles of categorization and pattern perceptions'. Discuss.*