Theories of Teaching Language to Children
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1.0 Introduction

Language acquisition is the process by which humans acquire the capacity to perceive, produce and use words to understand and communicate. This capacity involves the picking up of diverse capacities including syntax, phonetics, and an extensive vocabulary. This language might be vocal as with speech or manual as in sign. Language acquisition usually refers to first language acquisition, which studies infants' acquisition of their native language, rather than second language acquisition that deals with acquisition (in both children and adults) of additional languages (Graham, 1998). Over the last fifty years, several theories have been put forward to explain the process by which children learn to understand and speak a language. These include Behaviourist theory, Innateness theory, Noam Chomsky's Cognitive theory and Piaget's Interaction theory.

1.2 Statement of the Problem

There is no one single theory that can explain language acquisition. Proponents of different theories have examined various theories but appear to contradict. This paper thus intended to examine different theories, analyses their very weaknesses and strengths.

1.3 General Objective

The objective of this paper was to explore different theories of language development in children.

1.4 Significance

The exposure of various theories provides a comprehensive, yet manageable, overview of current major educational psychological theories and issues and analyzes the implications for the teaching process. Adopting the idea that "there are no final and only answers to questions concerning language acquisition theories,", this paper is an exhortation for teachers to develop their own learning theories and test them in terms of classroom reactions, structure, and the adequacy of supporting evidence.

2.0 Theories of Language Development in Children

There are various theories of language acquisition in children. This section discusses briefly the key ones.

2.1 The Behaviourist Theory

The behaviourist psychologists developed their theories while carrying out a series of experiments on animals. They observed that rats or birds, for example, could be taught to perform various tasks by encouraging habit-forming. Researchers rewarded desirable behaviour. This was known as positive reinforcement. Undesirable behaviour was punished or simply not rewarded - negative reinforcement.

The behaviourist B. F. Skinner then proposed this theory as an explanation for language acquisition in humans. In Verbal Behaviour (1957), he stated:

> "The basic processes and relations which give verbal behaviour its special characteristics are now fairly well understood. Much of the experimental work responsible for this advance has been carried out on other species, but the results have proved to be surprisingly free of species restrictions. Recent work has shown that the methods can be extended to human behaviour without serious modifications."(cited in Lowe and Graham, 1998, p68)

Skinner suggested that a child imitates the language of its parents or carers. Successful attempts are rewarded because an adult who recognises a word spoken by a child will praise the child and/or give it what it is asking for. Successful utterances are therefore reinforced while unsuccessful ones are forgotten.

Limitations of the Behaviourist Theory

While there must be some truth in Skinner's explanation, there are many objections to it.

   a)   Language is based on a set of structures or rules, which could not be worked out simply by imitating individual utterances. The mistakes made by children reveal that they are not simply imitating but actively working out and applying rules. For example, a child who says "drinked" instead of "drank" is not copying an adult but rather over-applying a rule. The child has discovered that past tense verbs are formed by adding a /d/ or /t/ sound to the base form. The "mistakes" occur because there are irregular verbs which do not behave in this way. Such forms are often referred to as intelligent mistakes or virtuous errors

   b)   The vast majority of children go through the same stages of language acquisition. There appears to be a definite sequence of steps. We refer to developmental milestones. Apart from certain extreme cases (see the case of Genie), the sequence seems

to be largely unaffected by the treatment the child receives or the type of society in which s/he grows up.

c)   Children are often unable to repeat what an adult says, especially if the adult utterance contains a structure the child has not yet started to use. The classic demonstration comes from the American psycholinguist David McNeill. The structure in question here involves negating verbs:

> Child:
> Nobody don't like me
> Mother: No, say, "Nobody likes me."
> Child: Nobody don't like me.
> (Eight repetitions of this dialogue)
> Mother: No, now listen carefully: say, "Nobody likes me."
> Child: Oh! Nobody don't likes me.
> (McNeil in The Genesis of Language, 1966)

d)   Few children receive much explicit grammatical correction. Parents are more interested in politeness and truthfulness. According to Brown, Cazden and Bellugi (1969): "It seems to be truth value rather than well-formed syntax that chiefly governs explicit verbal reinforcement by parents - which renders mildly paradoxical the fact that the usual product of such a training schedule is an adult whose speech is highly grammatical but not notably truthful." (cited in Lowe and Graham, 1998).

e)   There is evidence for a critical period for language acquisition. Children who have not acquired language by the age of about seven will never entirely catch up. The most famous example is that of Genie, discovered in 1970 at the age of 13. She had been severely neglected, brought up in isolation and deprived of normal human contact. Of course, she was disturbed and underdeveloped in many ways. During subsequent attempts at rehabilitation, her carers tried to teach her to speak. Despite some success, mainly in learning vocabulary, she never became a fluent speaker, failing to acquire the grammatical competence of the average five-year-old.

Though tribute is given to the behaviourist paradigm, Skinner's book generated more questions and concerns than it explained. After his book was published and critiqued by Noam Chomsky, Skinner failed to respond immediately to the issues and problems raised. His slow response coupled with both a growing disdain for the behaviourist paradigm and the influence of

technology, computers, and information processing led to the strengthening of the cognitive movement in psychology and other social sciences.

2.2 The Innateness Theory

Noam Chomsky published a criticism of the behaviourist theory in 1957. In addition to some of the arguments listed above, he focused particularly on the impoverished language input children receive. Adults do not typically speak in grammatically complete sentences. In addition, what the child hears is only a small sample of language.

Chomsky concluded that children must have an inborn faculty for language acquisition. According to this theory, the process is biologically determined - the human species has evolved a brain whose neural circuits contain linguistic information at birth. The child's natural predisposition to learn language is triggered by hearing speech and the child's brain is able to interpret what s/he hears according to the underlying principles or structures it already contains. This natural faculty has become known as the Language Acquisition Device (LAD). Chomsky did not suggest that an English child is born knowing anything specific about English, of course. He stated that all human languages share common principles. (For example, they all have words for things and actions - nouns and verbs.) It is the child's task to establish how the specific language s/he hears expresses these underlying principles.

For example, the LAD already contains the concept of verb tense. By listening to such forms as "worked", "played" and "patted", the child will form the hypothesis that the past tense of verbs is formed by adding the sound /d/, /t/ or /id/ to the base form. This, in turn, will lead to the "virtuous errors" mentioned above. It hardly needs saying that the process is unconscious. Chomsky does not envisage the small child lying in its cot working out grammatical rules consciously!

Chomsky's ground-breaking theory remains at the centre of the debate about language acquisition. However, it has been modified, both by Chomsky himself and by others. Chomsky's original position was that the LAD contained specific knowledge about language. Dan Isaac Slobin has proposed that it may be more like a mechanism for working out the rules of language:

> "It seems to me that the child is born not with a set of linguistic categories but with some sort of process mechanism - a set of procedures and inference rules, if you will - that he uses to process linguistic data. These mechanisms are such that,

applying them to the input data, the child ends up with something which is a member of the class of human languages. The linguistic universals, then, are the result of an innate cognitive competence rather than the content of such a competence." (Russell, 2001).

Evidence to support the innateness theory

Work in several areas of language study has provided support for the idea of an innate language faculty. Three types of evidence are offered here:

a)   Slobin has pointed out that human anatomy is peculiarly adapted to the production of speech. Unlike our nearest relatives, the great apes, we have evolved a vocal tract which allows the precise articulation of a wide repertoire of vocal sounds. Neuro-science has also identified specific areas of the brain with distinctly linguistic functions, notably Broca's area and Wernicke's area. Stroke victims provide valuable data: depending on the site of brain damage, they may suffer a range of language dysfunction, from problems with finding words to an inability to interpret syntax. Experiments aimed at teaching chimpanzees to communicate using plastic symbols or manual gestures have proved controversial. It seems likely that our ape cousins, while able to learn individual "words", have little or no grammatical competence. Pinker (1994) offers a good account of this research.

b)   The formation of creole varieties of English appears to be the result of the LAD at work. The linguist Derek Bickerton has studied the formation of Dutch-based creoles in Surinam. Escaped slaves, living together but originally from different language groups, were forced to communicate in their very limited Dutch. The result was the restricted form of language known as a pidgin. The adult speakers were past the critical age at which they could learn a new language fluently - they had learned Dutch as a foreign language and under unfavourable conditions. Remarkably, the children of these slaves turned the pidgin into a full language, known by linguists as a creole. They were presumably unaware of the process but the outcome was a language variety which follows its own consistent rules and has a full expressive range. Creoles based on English are also found, in the Caribbean and elsewhere.

c)   Studies of the sign languages used by the deaf have shown that, far from being crude gestures replacing spoken words, these are complex, fully grammatical languages in their own right. A sign language may exist in several dialects. Children learning to sign as a first language pass through similar stages to hearing children learning spoken language. Deprived of speech, the urge to communicate is realised through a manual

system which fulfils the same function. There is even a signing creole, again developed by children, in Nicaragua. For an account of this, see Pinker, 1994 (pp 36-7).

Chomsky further argues that the universal principles that children discover form their core grammar. On the other hand, the rules or features that are not determined by universal grammar form their peripheral grammar. Rules of core grammar might be easier to acquire than the rules of the peripheral grammar, since the latter are thought to be outside of the child's programmed instruction.

Limitations of Chomsky's theory
Chomsky's work on language was theoretical. He was interested in grammar and much of his work consists of complex explanations of grammatical rules. He did not study real children. The theory relies on children being exposed to language but takes no account of the interaction between children and their carers. Nor does it recognise the reasons why a child might want to speak, the functions of language.

In 1977, Bard and Sachs published a study of a child known as Jim, the hearing son of deaf parents. Jim's parents wanted their son to learn speech rather than the sign language they used between themselves. He watched a lot of television and listened to the radio, therefore receiving frequent language input.   However, his progress was limited until a speech therapist was enlisted to work with him. Simply being exposed to language was not enough. Without the associated interaction, it meant little to him. (Chomsky, 1966).

Subsequent theories have placed greater emphasis on the ways in which real children develop language to fulfil their needs and interact with their environment, including other people.

2.3 The Cognitive Theory
The Swiss psychologist Jean Piaget placed acquisition of language within the context of a child's mental or cognitive development. He argued that a child has to understand a concept before s/he can acquire the particular language form which expresses that concept.
A good example of this is 'seriation'. There will be a point in a child's intellectual development when s/he can compare objects with respect to size. This means that if you gave the child a number of sticks, s/he could arrange them in order of size. Piaget suggested that a child who had

not yet reached this stage would not be able to learn and use comparative adjectives like "bigger" or "smaller", (Piaget, 1987).

Object permanence is another phenomenon often cited in relation to the cognitive theory. During the first year of life, children seem unaware of the existence of objects they cannot see. An object which moves out of sight ceases to exist. By the time they reach the age of 18 months, children have realised that objects have an existence independently of their perception. The cognitive theory draws attention to the large increase in children's vocabulary at around this age, suggesting a link between object permanence and the learning of labels for objects. (Piaget, 1987)

Limitations of the Cognitive Theory
During the first year to 18 months, connections of the type explained above are possible to trace but, as a child continues to develop, so it becomes harder to find clear links between language and intellect. Some studies have focused on children who have learned to speak fluently despite abnormal mental development. Syntax in particular does not appear to rely on general intellectual growth. (Piaget, 1987).

2.4 The Input or Interactionist Theories
In contrast to the work of Chomsky, more recent theorists have stressed the importance of the language input children receive from their care-givers. Language exists for the purpose of communication and can only be learned in the context of interaction with people who want to communicate with you. Interactionists such as Jerome Bruner suggest that the language behaviour of adults when talking to children (known by several names by most easily referred to as child-directed speech or CDS) is specially adapted to support the acquisition process. This support is often described to as scaffolding for the child's language learning. Bruner also coined the term Language Acquisition Support System or LASS in response to Chomsky's LAD. ColwynTrevarthen studied the interaction between parents and babies who were too young to speak. He concluded that the turn-taking structure of conversation is developed through games and non-verbal communication long before actual words is uttered (Chomsky, 1966).

Limitations of Input theories
These theories serve as a useful corrective to Chomsky's early position and it seems likely that a child will learn more quickly with frequent interaction. However, it has already been noted that children in all cultures pass through the same stages in acquiring language. We have also seen

that there are cultures in which adults do not adopt special ways of talking to children, so CDS may be useful but seems not to be essential, Chomsky, (1966).

The main theorist associated with interactionist theory is Lev Vygotsky. Interactionists focus on Vygotsky's model of collaborative learning. Collaborative learning is the idea that conversations with older people can help children both cognitively and linguistically.

3.0 Conclusion
The field of children's language development is one that encompasses a range of distinct theoretical perspectives. The theoretical issue that has predominated over all the others in this area for the last thirty-five years or more is that of the extent to which children are pre-programmed for the specific task of language learning. A related issue is that of whether language is independent of other areas of cognition, or is it dependant upon more general cognitive abilities. A number of distinct theoretical positions have been identified - some of the main protagonists being, as any textbook account will reveal: Chomsky, who believes the child is born with specific linguistic knowledge; Skinner, portrayed as believing that language is entirely a matter of conditioning; Piaget, who sees language development as an outgrowth of general cognitive development; and Bruner, who emphasises the importance of the social/interactional context in which language development takes place.

Skinner bases his theory of children acquiring language through behaviourism. Skinner states that all behaviour is conditioned e.g. punished or rewarded until it becomes natural and automatic. Babies imitate their parents/carers and are either reprimanded or praised according to their accuracy. This is Skinner going against Chomsky, as he believes biology plays almost no part in the way children learn language.

Piaget's theories on children learning language is mainly focused around "cognitive development," meaning language are controlled by the development of thinking. If a baby can use sentences involving phrases such as, "more than", "less than" it is obvious that the concepts of "more than" must have been grasped, before the child uses the phrase in an utterance.

Chomsky- Noam Chomsky stated that children are born with an innate knowledge of language when they are born and learning of their native language is at high speed when hearing it from others. This links to children over-regularizing and putting grammar into utterances when they are not needed. Chomsky is one of the most famous theorists on child language acquisition, but

because his theories were based on his own intuitions about English and not actually studied on real children, many theorists find flaws within his theories and statements

Chomsky, then, sees the child as essentially autonomous in the creation of language. She is programmed to learn, and will learn so long as minimal social and economic conditions are realised. In Bruner's version, the program is indeed in place, but the social conditions become more important. The child is still an active participant, is still essentially creative in her approach to language acquisition, but the role of the parents and other caretakers is also seen as primordial.

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