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# **First Language Development in Children: Major Explanatory Approaches and Stages**

**Arnab Mukherjee**

*Asst. Professor, Dept. of English, Panchthupi Haripada-Gouribala College, University of Kalyani, West Bengal*

### **Abstract**

*In this article four major theories about the process how first languages are acquired by the children are discussed. While Behaviourist theorists explain this as a chain system of imitation, reinforcement and habit formation, Innatists argue that language is the innate ability of every normal child who only needs some language input from the environment to ignite this mechanism in the brain and thereby develop the skill of using their first language. Again, cognitive psychologists explain language acquisition as a part of child's cognitive development interacting with environment. On the other hand, some recent linguists analyze the process as an application-based usage-oriented skill. The major developmental stages of acquiring the first language and a child's respective progress in these stages are also pointed out.*

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**Introduction:** How languages are learnt by the children is an age-old question. After birth a child stays with parents and gradually becomes able to speak and comprehend the language of the parents. This language is usually referred to the mother tongue or the first language or the L1 of the child. Nowadays it is quite acknowledged fact that a child does not learn L1 but acquires L1. Learning is a formal and conscious process while acquisition is a spontaneous and unconscious process. Learning a language usually occurs in institutions like schools. Unlike learning, acquisition does not tell about the language rather it develops language skills in the children. One child may acquire two languages at the same time as L1. And this usually happens in the cases of those children whose parents are from two different language communities. The first language acquisition process begins from the birth of a child and though it is a lifelong process, it peaks its top pace during the pre-adolescent period and thereafter a decrease in the speed is noted. In this article we are trying to discuss four major theories trying to explain the first language acquisition process of the children along with briefly describing their different developmental stages

**Behaviourist Approach:** Environmentalist theories and Behaviourist studies both in psychology and linguistics originate in the beginning of the 20th century. They claim that child language acquisition is governed by habit forming and reinforcement by imitation,

repetition, and analogy. Children come into this world with a *tabula rasa* (a clean slate bearing no preconceived notions about the world or about language) and that these children are then shaped by the environment and slowly conditioned through various schedules of reinforcement. Language is a fundamental part of total human behaviour. This approach focused on the immediately perceptible aspects of linguistic behaviour the publicly observable responses and the relationships or associations between those responses and events in the world surrounding them. A behaviourist might consider effective language behaviour to be the production of correct responses to stimuli. If a particular response is reinforced, it then becomes habitual, or conditioned. This is true of their comprehension as well as production responses. The behaviorist view imitation and practice as primary processes in language development. One of the best-known attempts to construct a behaviouristic model of linguistic behavior was embodied in American Behaviourist B.F. Skinner's classic, *Verbal Behavior* (1957). Skinner was commonly known for his experiments with animal behaviour, but he also gained recognition for his contributions to education through teaching machines and programmed learning. Skinner's theory of verbal behaviour was an extension of his general theory of learning by operant conditioning. Operant conditioning is the use of consequences to modify the occurrence and form of behavior. It refers to conditioning in which the organism (in this case, a human being) produces a response, or operant (a sentence or utterance), without necessarily observable stimuli. This operant is maintained (learned) by reinforcement (e.g. a positive verbal or nonverbal response from another person). If a child says "want milk" and a parent gives the child some milk, the operant is reinforced and, over repeated instances, is conditioned. According to Skinner, verbal behaviour, like other behaviour, is controlled by its consequences. When consequences are rewarding, behaviour is maintained and is increased in strength and perhaps frequency. When consequences are punishing, or when there is a total lack of reinforcement, the behaviour is weakened and eventually extinguished. So, children encouraged by parents and other adults imitate them and form the habit to produce language.

Noted American Linguist Noam Chomsky argues that the behaviourist theory fails to recognize what has come to be called *the logical problem of language acquisition*. This *logical problem* refers to the fact that children come to know more about the structure of their language than they could reasonably be expected to learn on the basis of the samples of language which they hear. Children do not learn and reproduce a large set of sentences, but they routinely create new sentences that they have never learnt before. They internalize rules rather than a string of words (e.g. it broke /mommy goed). The language the child is exposed to in the environment is full of confusing information. (e.g. false starts, incomplete sentences, or slips of the tongue). Children are not systematically corrected or instructed on language points. Parental corrections are inconsistent or even non-existent. When parents do correct, they tend to focus on meaning and truth values and not on language itself. Today virtually no one would agree that Skinner's model of verbal behaviour adequately accounts for the capacity to acquire language, for language development itself, for the abstract nature of language, or for a theory of meaning. It would appear that this position with its emphasis

on empirical observation and the scientific method only began to explain the miracle of language acquisition. It left untouched genetic and interactionist domains that could be explored only by approaches that probed more deeply.

**Nativist Approach:** The term nativist is derived from the fundamental assertion that language acquisition is innately determined, that we are born with a genetic capacity that predisposes us to a systematic perception of the language around us, resulting in the construction of an internalized system of language. Noam Chomsky claims that children are biologically programmed for language and that language develops in the child in just the same way that other biological functions develop. Children are born with a special ability to discover for themselves the underlying rules of a language system. The environment makes a basic contribution in this case - the availability of people who speak to the child. The child, or rather, the child's biological endowment, will do the rest. Chomsky conceptualizes this biological endowment as *Language Acquisition Device* (LAD) (Chomsky, 1959) the imaginary *black box* which exists somewhere in the brain. It is thought to contain all and only the principles which are universal to all human languages. For the LAD to work, the child needs access only to samples of a natural language. These language samples serve as a trigger to activate the device. Once it is activated, the child is able to discover the structure of the language to be learned by matching the innate knowledge of basic grammatical relationships to the structures of the particular language in the environment. Later Chomsky and his followers changed the term LAD but refer to the child's innate endowment as *Universal Grammar* (UG). Chomsky has defined UG as *the system of principles, conditions, and rules that are elements or properties of all human languages* (Chomsky, 1976). The principles and parameters approach to syntax proposes that there is a set of universal principles shared by every human language, and that these are known by all human beings. Knowledge of a particular language, then, consists of knowledge of the settings of a finite number of parameters which define exactly how the universal principles need to be applied to construct grammatical sentences. Parameters differentiates languages.

**Interactionist Approach:** Swiss Psychologist Jean Piaget however disagrees with Chomsky in this regard. The main point of disagreement between them are the specific aspects (which in their debate they called the *nucleus*) of children's cognition that are responsible for language acquisition. Piaget does not agree that children's language ability is constrained by a *fixed nucleus* (Universal Grammar). Piaget's comprehension of language development lies in the very process of its transformation. He believes that children's knowledge of language being a part of children's cognitive development happens alongside with logical thinking and reasoning. So when Piaget refers to this genetic *nucleus*, he sees it in constant mutation that is directly connected with children's construction of knowledge due to experience developed from the interaction with the outside world. To him, children's language knowledge is subject to changes and growth according to children's understanding or assimilation of the world. Therefore, Piaget believes that children's language

development occurs simultaneously with their logical thinking and refuses to accept Chomsky's idea of a *fixed nucleus* (Universal Grammar).

Chomsky on the other hand, describes cognitive development as the consecutive maturation of Universal Grammar (*fixed nucleus*). In his response to Piaget's criticism, Chomsky argues that there is no relevant experience that leads to the construction of linguistic knowledge. Chomsky disagrees with Piaget's views and debates that language knowledge must be present in children's minds when they are born for language acquisition to take place. This language knowledge is triggered by language experience and from input from the environment.

Although another Russian interactionist Lev Vygotsky were of the same opinion with Piaget that language is a social behavior learnt by cognition like other sensorimotor skills through social interaction he pointed out the importance of an *interlocutor* between the learner and the environment who being a *more knowledgeable person* than the learner helps the learner to learn a language by creating a *zone of proximal development* for the learner. So he emphasized on the role of parents or other adults and their *motherese* or *caretaken language* for the child learner as *interlocutors* creating the *zone of proximal development* between the learner and the environment in case of learning a language.

**Usage-Based Approach:** Another American linguist who rejects Chomsky's theory is Michael Tomasello, arguing that children *imitatively learn* language. He believes that children hear the language speech that is used around them, then use their social skills to progressively start to categorize, put in schemas, and creatively combine individually learned expressions. Therefore, children use language to acquire knowledge of language. In other words, children's language use helps them create language knowledge.

The key notion of Tomasello's theory is the term construction; he explains that the grammar of a language is a repertory of construction instead of generative as outlined by Chomsky. Joan Bybee further developed Tomasello's theory by suggesting that when children acquire language, they do it in a bottom up manner. The term bottom up is defined as the notion that language acquisition starts first with language performance and later children construct language competence. In other words, from language usage come language knowledge and the capacity to produce language. According to Bybee children's system of grammar is not self-contained or stagnant, but is subject to change and motivated by language use. Furthermore, By bee suggests that a child's linguistic experience grows with interaction and exposure to language. The repeated routine of listening and speaking facilitates language processing. Therefore, children's competence of language is regularly updated and stored in their brains. In conclusion, while Chomsky claims that language grammar is inside of the child's brain, Tomasello and by bee suggest that grammar is a construct of language usage, therefore it happens due to outside experience.

| First Language Acquisition Timeline   |              |  |
|---|--------------|--|
| Stage   | Typical age  | Description  |
| This is the pre-speech stage  | 0-6 months   | While babies are not yet speaking their first words, they are learning to pay attention to sounds and they can recognize the distinctive phonemes of the language the language they have been hearing  |
| This is when the babbling stage begins.   | 6-8 months   | The babies make various sounds that may or may not be attributed to the native language. This has been hypothesized as practicing-helping babies gain control over the motor functions involved.   |
| One-word stage (better <i>one-morpheme</i> or <i>one-unit</i> ) or holophrastic stage | 9-18 months  | The child begins to speak individual words. The first fifty words acquired are typically names of important people, greetings, foods, objects within a daily routine, and words used to change their environment, such as give, open, etc. Also, during this stage overextension often occurs. For example, a dog might be any four-legged creature instead of a lamb, cow, etc. |
| Two-word stage  | 18-24 months | A child will say a phrase two morphemes long. For example, “doggy bark” or “my doll”   |
| Telegraphic stage or early multiword stage (better <i>multi-morpheme</i> )            | 24-30 months | The children will use multi-unit morphemes yet still leave out functional and grammatical words.   |
| Sentence stage  | 30+ Months   | Children speak in sentences of several words, yet grammar is still incomplete. By the age of six, children are speaking mostly like an adult.  |

**Conclusion:** In summary, the critics against Chomsky’s hypothesis dwell on the nature of Universal Grammar and question its existence. Despite being the target of criticism, Chomsky found supporters among biologists and neurobiologists alike who trust Chomsky’s Innateness Hypothesis and the existence of an inborn mechanism that aids first language acquisition. In recent times two areas in the human brain are identified for language related activities. The Broca's area and Wernicke's area, that contain motor neurons, are the language processing units of the brain that help in understanding language as well as allow us to communicate properly. These are the language centers of the brain, and their proper functioning is very important to comprehend and speak any language. Both areas are connected to each other by arcuate fasciculus—a bundle of nerves—in which

information processed from Wernicke's area is relayed to Broca's area. Broca's area is located in the left frontal lobe, in close proximity of primary motor cortex. Wernicke's area sits in the left temporal lobe, very close to the auditory cortex—the area involved in hearing. The auditory cortex sends its output to Wernicke's area. Broca's area stores the grammatical rules and applies them in language while Wernicke's area deals with the semantic aspects of the language helping comprehension.

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