



## Study the phases of Language development

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**Abstract** : Language development is a process starting early in human life. Infants start without knowing a language, yet by 10 months, babies can distinguish speech sounds and engage in babbling. Some research has shown that the earliest learning begins in utero when the fetus starts to recognize the sounds and speech patterns of its mother's voice and differentiate them from other sounds after birth.

Usually, productive language is considered to begin with a stage of preverbal communication in which infants use gestures and vocalizations to make their intents known to others. According to a general principle of development, new forms then take over old functions, so that children learn words to express the same communicative functions they had already expressed by proverbial means.

**Key Words** : language,

### Language acquisition

Language development is thought to proceed by ordinary processes of learning in which children acquire the forms, meanings, and uses of words and utterances from the linguistic input.[citation needed] The method in which we develop language skills is universal; however, the major debate is how the rules of syntax are acquired.[citation needed] There are two major approaches to syntactic development, an empiricist account by which children learn all syntactic rules from the linguistic input, and a nativist approach by which some principles of syntax are innate and are transmitted through the human genome.[citation needed]

The nativist theory, proposed by Noam Chomsky, argues that language is a unique human accomplishment, and can be attributed to either "millions of years of evolution" or to "principles of neural organization that may be even more deeply grounded in physical law". Chomsky says that all children have what is called an innate language acquisition device (LAD). Theoretically, the LAD is an area of the brain that has a set of universal syntactic rules for all languages. This

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device provides children with the ability to make sense of knowledge and construct novel sentences with minimal external input and little experience. Chomsky's claim is based upon the view that what children hear—their linguistic input—is insufficient to explain how they come to learn language.[citation needed] He argues that linguistic input from the environment is limited and full of errors. Therefore, nativists assume that it is impossible for children to learn linguistic information solely from their environment. However, because children possess this LAD, they are in fact, able to learn language despite incomplete information from their environment. Their capacity to learn language is also attributed to the theory of universal grammar (UG), which posits that a certain set of structural rules are innate to humans, independent of sensory experience.[5] This view has dominated linguistic theory for over fifty years and remains highly influential, as witnessed by the number of articles in journals and books.[citation needed]

The empiricist theory suggests, contra Chomsky, that there is enough information in the linguistic input children receive and therefore, there is no need to assume an innate language acquisition device exists (see above). Rather than a LAD evolved specifically for language, empiricists believe that general brain processes are sufficient enough for language acquisition. During this process, it is necessary for the child to actively engage with their environment. For a child to learn language, the parent or caregiver adopts a particular way of appropriately communicating with the child; this is known as child-directed speech (CDS).[citation needed] CDS is used so that children are given the necessary linguistic information needed for their language. Empiricism is a general approach and sometimes goes along with the interactionist approach. Statistical language acquisition, which falls under empiricist theory, suggests that infants acquire language by means of pattern perception.[citation needed]

Other researchers embrace an interactionist perspective, consisting of social-interactionist theories of language development. In such approaches, children learn language in the interactive and communicative context, learning language forms for meaningful moves of communication. These theories focus mainly on the caregiver's attitudes and attentiveness to their children in order to promote productive language habits.

An older empiricist theory, the behaviorist theory proposed by B. F. Skinner suggested that language is learned through operant conditioning, namely, by imitation of stimuli and by reinforcement of correct responses. This perspective has not been widely accepted at any time, but



by some accounts, is experiencing a resurgence. New studies use this theory now to treat individuals diagnosed with autism spectrum disorders. Additionally, Relational Frame Theory is growing from the behaviorist theory, which is important for Acceptance and Commitment Therapy. Some empiricist theory accounts today use behaviorist 4models.

Other relevant theories about language development include Piaget's theory of cognitive development, which considers the development of language as a continuation of general cognitive development and Vygotsky's social theories that attribute the development of language to an individual's social interactions and growth.

#### Biological preconditions

Evolutionary biologists are skeptical of the claim that syntactic knowledge is transmitted in the human genome. However, many researchers claim that the ability to acquire such a complicated system is unique to the human species. Non-biologists also tend to believe that our ability to learn spoken language may have been developed through the evolutionary process and that the foundation for language may be passed down genetically. The ability to speak and understand human language requires speech production skills and abilities as well as multisensory integration of sensory processing abilities.[citation needed]

One hotly debated issue is whether the biological contribution includes capacities specific to language acquisition, often referred to as universal grammar. For fifty years, linguist Noam Chomsky has argued for the hypothesis that children have innate, language-specific abilities that facilitate and constrain language learning.[citation needed] In particular, he has proposed that humans are biologically prewired to learn language at a certain time and in a certain way, arguing that children are born with a language acquisition device (LAD). However, since he developed the minimalist program, his latest version of theory of syntactic structure, Chomsky has reduced the elements of universal grammar, which he believes are prewired in humans to just the principle of recursion, thus voiding most of the nativist endeavor.

Researchers who believe that grammar is learned rather than innate, have hypothesized that language learning results from general cognitive abilities and the interaction between learners and their human interactants. It has also recently been suggested that the relatively slow development of the prefrontal cortex in humans may be one reason that humans are able to learn language, whereas other species are not. Further research has indicated the influence of the FOXP2 gene.



## Gender difference

Language development and processing begins before birth. Evidence has shown that there is language development occurring antepartum. De Casper and Spence[ performed a study in 1986 by having mothers read aloud during the last few weeks of pregnancy. When the infants were born, they were then tested. They were read aloud a story while sucking on a pacifier; the story was either the story read by the mother when the infant was in utero or a new story. The pacifier used was able to determine the rate of sucking that the infant was performing. When the story that the mother had read before was heard, the sucking of the pacifier was modified. This did not occur during the story that the infant had not heard before. The results for this experiment had shown that the infants were able to recognize what they had heard in utero, providing insight that language development had been occurring in the last six weeks of pregnancy.

Throughout the first year of life, infants are unable to communicate with language. Instead, infants communicate with gestures. This phenomenon is known as prelinguistic gestures, which are nonverbal ways that infants communicate that also had a plan backed with the gesture. Examples of these could be pointing at an object, tugging on the shirt of a parent to get the parent's attention, etc. Harding, 1983, devised the major criteria that come along with the behavior of prelinguistic gestures and their intent to communicate. There are three major criteria that go along with a prelinguistic gesture: waiting, persistence, and ultimately, development of alternative plans. This process usually occurs around 8 months of age, where an appropriate scenario may be of a child tugging on the shirt of a parent to wait for the attention of the parent who would then notice the infant, which causes the infant to point to something they desire. This would describe the first two criteria. The development of alternative plans may arise if the parent does not acknowledge what the infant wants, the infant may entertain itself to satisfy the previous desire.

It is currently believed that in regards to brain lateralization males are left-lateralized, while females are bilateralized. Studies on patients with unilateral lesions have provided evidence that females are in fact more bilateralized with their verbal abilities. It seems that when a female has experienced a lesion to the left hemisphere, she is better able to compensate for this damage than a male can. If a male has a lesion in the left hemisphere, his verbal abilities are greatly impaired in comparison to a control male of the same age without that damage. However, these results may also be task-dependent as well as time-dependent.



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