

# Nature and nurture in language acquisition



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## NATURE AND NURTURE IN LANGUAGE ACQUISITION

### INTRODUCTION

Researchers have studied how children acquire language. There is a constant debate about the impact nature and nurture has on language. One of the topics is how children learn a language. I intend to answer the question: How do children learn and acquire language through nature, nurture, or a combination of both?

### DEFINING LANGUAGE

Language is “ a set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements (13).” Further, language has “ a finite number of phonemes and each sentence is representable as a finite sequence of these phonemes.” (Chomsky, 1957).

This ability a child has to learn a language is extraordinary. Scholars say that infants have an understanding of the grammar needed to comprehend sentences such as: “ who did what to whom; e. g. the bunny pushed the frog.” After a significant period of research of child language acquisition, it is still a mystery the machinery that enables a child to piece syllables and words from the different sounds the child hears to obtain grammar and to yield language. (Rowland & Noble, 2010).

Some scholars believe that language learning is the outcome of innate factors. Humans possess this ability in the genes. Yet, other linguists are of the idea that language is learned from the involvement with the environment and obtaining all linguistic information from it. So, at this point it is unclear if

language is a result of genes or the environment. But, it may be as well a combination. (Shanawaz, August 22, 2011).

#### LANGUAGE ACQUISITION BY AGE

“ Language learning is a universal human trait.” In order for children to obtain language skills they undergo 5 stages. First, “ cooing (0 to 5 months).” Second, “ babbling (5 to 12 months).” Third, “ one-word sounds (The emergence of the first word, 9 to 18 months).” Fourth, “ two-word utterances (1. 5 to 3. 5 years).” Fifth, “ basic adult language structure (4 years of age as it is the foundation for adult language).” So, to acquire language a child goes through stages according to their age. When the child is five years old he/she has speech and vocabulary of 6, 000 words in which he/she follows grammar rules, more than 150 words a minute with a minimal error. (Wells, 1986).

#### NATURE AND NURTURE

Nature states that a child is born with genetic inheritance. On the contrary, nurture is the result of exterior influences after the child is born, e. g. exposure and experience in learning. (McLeod, May 3, 2017).

Infants are gifted to grasp objects, numbers, faces, and language. Behavioral genetics says this tendency appears early in life and remains fairly continuous throughout a lifespan. Moreover, neuroscience says that the genome has a rich toolkit of axion molecules, and cell adhesion molecules to aid the structure of the brain during language acquisition making learning

possible. The innate organization of the brain cannot be overlooked but have helped to re-evaluate our conception of nature and nurture. (Pinker, 2004).

Furthermore, scholars try to answer the question: what makes humans what they are? These researchers say that the human genome has 100, 000 genes. So, scientists concluded that there are not enough genes to account for the ways humans behave. Thus, there has been a constant struggle between supporters of nature and nurture to explain language learning. The child may be motivated by instinct and culture in which this takes me back to the idea that nature and nurture play a combined role since genes build the brain and engross experience. (Ridley, 2003).

## LANGUAGE ACQUISITION THEORIES

The most accepted theory about language acquisition is the nativist theory which states that a baby is born with something in their genes that permits him/her to acquire language fast. Furthermore, there is a language acquisition device (LAD) somewhere in the brain that is accountable for learning a language.

The Behaviorist theory emphasizes visible behaviors. It has two areas of conditioning: classic and behavioral or operant. The operant conditioning states that a baby learns through rewards he /she obtains when showing the behavior desired. Classic conditioning is a normal reflex or reply to stimuli. For example, when a child is apprehensive of falling while he/she is learning to walk, the child shows classic conditioning. (Theories of the Early Stages of Language Acquisition). Although these theories are very important, the scholars forgot to take into account Piaget's cognitive theory. I believe that <https://assignbuster.com/nature-and-nurture-in-language-acquisition/>

both nature and nurture play important roles in language acquisition since the infant obtains enough linguistic information from the setting he/she is under. (Shanawaz, August 22, 2011).

#### PIAGET'S POINT OF VIEW

Piaget developed his Cognitive Theory. He believed that children are born with the biological ability of adapting to the environment. In other words, a child is genetically ready to develop and acquire knowledge and intelligence. In his theory, there were two concepts: assimilation and accommodation. Assimilation says that a child has the capacity to integrate new information and mix it into established structures. Accommodation was the changes in the mental process to make space for new knowledge. Intelligence is the connection between assimilation and association. Piaget also believed that development happens in stages.

Piaget's cognitive theory recalled the importance of understanding that human development cannot be explained just by taking into account the nature or the nurture factors individually. (Crain, 1980).

#### B. F. SKINNER'S POINT OF VIEW

Skinner proposed operant conditioning that occurs through rewards and punishments. It is by operant conditioning that an individual makes an association between a behavior and a consequence. (Skinner, 1938). He was of the idea that a child has a mind that is more productive in studying observable behavior rather than internal mental events. (McLeod, 2018). Behavior that is followed by pleasant consequences is possible to be

repeated, and behavior that is not acceptable by unpleasant penalties is unlikely to be repeated. Thus, language is learned through imitation and through rewards from parents. The strength of this theory is imitation. (Hare, 2016).

#### CHOMSKY'S POINT OF VIEW

Language acquisition was a result of the innate processes. Innate is something which is in mind since birth. The theory is proved in children living in the same linguistic community. Moreover, they are not predisposed by the external experiences bringing comparable grammar. His theory on language acquisition in 1977 says that “ all children share the same internal constraints which characterize narrowly the grammar they are going to construct.” (Essay). He also stated that all of us live in a biological world and mental world. He also believed that there are stages of development. Thus, language development is achieved at a certain age. Chomsky rejected that human mind is a clean slate at birth and is filled in by experience. From this, I understand that there are inborn structures in the baby's brain to acquire a language.

Chomsky's Universal Grammar that says that a child has the ability to learn a language. Universal Grammar for Chomsky was nature. He proposed that the child has a natural ability that permits him/her to learn and permits language development. Besides this, the child is born with the linguistic tools he/she needs to learn a language by himself/herself. (Dovey, Dec 7, 2015).

#### SIMILARITIES AND DIFFERENCES BETWEEN THE THREE THEORIES

Behaviorism and Nativism are two different schools of thought that explain language acquisition. For a behaviorist, the environment stimulates the verbal behavior in a child which is reinforced and strengthened by frequently occurring events. For example, families communicate with a child since he/she is born and eventually the child acquires their first language. On the contrary, nativists state that the child has the innate ability to acquire language. A baby's brain has the ability to acquire language and capability of linguistic comprehension. That is why parents are astonished when their child says things they have never been competent to say.

Skinner emphasized empiricist traditions and said that only after observed events one can frame theories. Chomsky, on the other hand, emphasized rationalist traditions and argued that the child's brain first forms questions and analyzes events which are then developed rationally to test events. Therefore, nativists and behaviorists define the acquisition of language through different approaches.

Behaviorists say environmental influences determine human behaviors. A nativist's view is more of a scientific measure to explain linguistic on biological variations and natural selection. Despite these differences both theories are responsible for the child's language acquisition. Further, researchers see it as almost impossible to rely on just one school of thought because learning behavior begins prior to birth since a fetus's auditory system perceives sounds during the third trimester of pregnancy. (Sabahat, June 19, 2012).

However, the two theories that were addressed made the distinction between nature and nurture but lacked to build the picture of how human development happened. Maybe a better insight was addressed when Piaget formulated his theory which took into account nature and nurture.

## CONCLUSION

This research paper was to explore language acquisition and associate and contrast different theories of language acquisition. It includes a range of modes of delivery including signing, spoken and written words, posture, eye contact, facial expressions, and gestures. So, the child is born with the skills for communication, or the child needs to learn from the environment.

How do children learn and acquire language? To answer this, I started defining language then the stages of language acquisition according to the child's age. After this, I moved to defining the role of nature and nurture in language acquisition. This set the stage to define Piaget's, Skinner's, and Chomsky's point of view on language acquisition. To conclude by mentioning some differences and similarities about the behaviorists, nativists, and Piaget. I am of the belief that a person should not rely on one theory.

Although the three theories are important, it is Chomsky's theory that makes more sense since parents are often astonished about what a child learns without any assistance. Nevertheless, Chomsky's and Skinner's ideas were previously addressed by Piaget. I am of the idea that for a child to acquire language there has to be a combination of nature and nurture. I hope I have achieved my purpose stated at the beginning.



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