

The Syntactic Development in Persian-Speaking Children from 16 to 22 Months: A longitudinal Case Study

Fatemeh Bahjat¹, Maryam Jamalzadeh^{2*}

1. Department of English, Abadeh Branch, Islamic Azad University, Abadeh, Iran.

2. Shiraz Branch, Islamic Azad University, Shiraz, Iran.

* Corresponding Author's Email: Jamalzadeh_ma@yahoo.com

Abstract – This study aimed at investigating the order of syntactic development in Persian-speaking children. To do so, a child was studied through transcripts, video, audio over the course of 6 months. The child has been observed since the age of 16 months to the age of 22 months. The child's utterances were recorded per week during this period. From this study we can see how long it takes a Persian-speaking child to acquire syntax. The result indicated that syntactic development in Persian language occurs with verbs and continues with nouns, adjectives, complements, and determiners respectively.

Keywords: syntactic development, Persian- speaking children, child language acquisition

1. INTRODUCTION

There are four different stages in the process of child language acquisition: pre-language, holophrastic, two-word and telegraphic speech (Lightbown & Spada, 2006). Moreover, Language is a modular system including syntactic component, phonetic form component (PF) and logical form component (LF). First, words are combined together using a series of syntactic computation in the syntax. These syntactic components are sent to PF component for assigning sound and production. Then they are sent to LF component for assigning meanings. So, syntactic structure serves as input into two other components of grammar. Indeed, it plays a significant role in language process. (Radford, 2004)

To the best of researchers' knowledge, few studies have been conducted on Persian-speaking children. Lack of the studies is greatly felt in this regard. This paper is an attempt to investigate and describe the processes of syntactic development in Persian-speaking children during a pre-determined time frame of 6 months. Therefore, the purpose of the study is to figure out the order of syntactic development in Persian-speaking child. This study can be used by linguists who are interested in the process of language acquisition.

2. LITERATURE REVIEW

It is believed that children are born with a language faculty (LF). That is a biological capacity which enables children to learn languages in the easiest and quickest possible way. The same as any other biological phenomena, LF grows in a certain period of time called "Critical Period", which is terminated about the age of puberty (Chomsky, 1959; Lust, 2006). It is also believed that every child is provided with a universal grammar involving a set of principles in mind (Chomsky, 1980). Hence, the brain is equipped with all essential structures to do

linguistic computation. However, language acquisition cannot be entirely innate. Children are born pre-programmed to learn a specific language, but it is impossible to learn a language if they are not exposed to that language (Lust, 2006).

Children learn a language step by step. In order to acquire a language, children need to discover linguistic unit by discovering linguistic system. The first recognizable word is produced between the ages of 12 to 18 months. Within few months words and gestures are combined. The first word combination occurs around age 2 in order to make meaningful sequences. At first, the children produce pairs of words and by passing time, these will be increased in three or four word utterances. Since these utterances are lack of grammatical morphemes, they cannot be considered as a sentence. As the children grow older, they master grammatical morphemes too (Clark, 2003; Yule, 1996).

To Simon (1969), children initially learn to produce one word, and then combine small pieces in order to make more complex structure. Lust (2006) declares that children first learn concrete linguistic expression by observing the environment and imitating their parents and they use general cognitive and social-cognitive skills in order to put together these structures with the aid of abstract linguistic expression. It is crucial for children to learn different aspects of language including: semantic, phonology, syntax (Yule, 1996).

Different areas in the language must be developed in order to acquire a language: 1) sound system to recognize which sequences of sounds are legal in syllables and words, stress patterns on words, tone on words in a language, and the intonation contours in sentences distinguishing a question from a statement (phonology); 2) the structure of the words based on their integral units of meaning and morphemes (morphology); 3) the structure of a sentence's component (syntax); 4) use of appropriate words to convey meaning (semantic) (Clarks, 2009; Yule, 1996).

When it is said a child has acquired a language, it can be understood that the child knows how to produce well-formed utterances which are based on grammatical rules, to mean, and to communicate (Bruner, 1983).

Langley (1982) introduced a model of first language acquisition regarding to the regularities in children's early syntactic development named AMBER which is based on error recovery. This system accounts for one word stage and omission of content words, telegraphic speech, and the order in which grammatical morphemes are acquired and mastered.

Christophe, Millotte, Bernal and Lidz (2007) considered the process of language acquisition during two years of life and speculated on the way rudiments of syntax were acquired. They declared that both adults and infants analyze incoming speech syntactically by putting together two types of information: function words and phrasal prosody: prosodic boundaries lead to syntactic constituent boundaries while function words lead these constituents to be labeled.

Thureson (2011) took into account the process of language acquisition and syntactic development of a child between 12 to 24 months through counting the MLU. The result showed that the amount of noun and verb usage proportionally increases with age and child's language development occurs along with backsliding episodes.

Mcwhinney (2015) investigated item-based patterns (IBPs) in early syntactic development. These patterns consider grammatical dependencies between a lexical predicate

and its arguments to make a combination. To acquire these patterns, new words can be acquired from simple sentences which lead directly to the formulation of a new IBP. Then IBPs arguments are generalized into fuller feature-based and global constructions.

2.1. Syntax

Syntax refers to structure and ordering of components of phrases and sentences. Analyzing syntactic structure concentrates on the finite underlying rules using to generate infinite number of well-formed sentences (Yule, 1996).

Knowledge of a language depends on the knowledge of which sequences of words, phrases, sentences are acceptable or unacceptable in a language. Hence, it is required that language learners understand relationship between prosodic cues and syntactic structures (Lust, 2006).

At the age of 18 months, children start to combine single words into two-word sentences which represents the development of syntax. In this stage, children learn grammar very fast. Soon they will be able to combine more words in order to produce long sentences with complex grammar. Finally at the age of three, children produce more adult-like utterances (Lund, 2014). Hence, syntax reflects sentence structure including three aspects: grouping, function, and word order. Syntactic structure can be described through tree diagram of a sentence. Each sentence has at least one or two clauses which may include a noun, verb-, prepositional-, and complement phrase (Lund, 2014). Generally speaking, development of language occurs when the child is able to link the right form of words with each other.

3. METHOD

3.1. Participants

The subject of the study is named Bahar. She is the second daughter of a middle-class Iranian family in Shiraz. Both of her parents are educated up to Master's degrees. She is basically exposed to the environment where Persian is spoken.

3.2. Data collection procedure

The data has been collected through observation and recordings from 16 to 22 Months. During study period, all the child's utterances were recorded through transcripts, video, audio in about 15 minutes per week. The child was not forced to talk and the utterances included those between the parents and child and between the child and her sister.

3.3. Data Analysis

In order to make sure no error was made, the child's utterances was transcribed, and then analyzed based on syntactic rules to answer the research question. Unclear voice was removed from the transcribed files.

4. RESULTS

In this study, the child has produced 197 utterances at the age 16 to 22 months. The following table depicts the frequency of each word classes during this period.

Age	noun	verb	adjective	preposition
16-17	19	14	1	0
18-19	62	28	6	2
20-21	98	39	17	8
22	102	46	32	11

As the above table shows noun and verbs are the most frequently-used words respectively. Nevertheless noun is the first category to appear in child's utterances. The least frequently-used categories are determiner, preposition, and adjective respectively.

Although the table shows that nouns are produced most frequently than the other word classes, but some evidences indicate that syntactic development in Persian-speaking children occurs with verbs:

/boro/, go

/biya/, come

/bedesh/, give it

/Ab bede/, give water

/tup bede/, give ball

The above utterances reveals that the child has been acquiring verb classes, although she has not acquiring other word classes yet.

As the table shows there is no evidence of syntactic development in adjectives and preposition at the age of 16 to 17 months. The occurrences of adjective and preposition are 1 and zero respectively. In spite of the fact that noun is the most common category, there is no inflectional and syntactic sign of acquiring noun class until the beginning of the 18th month.

/Doxtare xub/, good girl

/lebase ghashanx/, beautiful shirt

/inahash/, this

/ unahash/, that

“This” and “that” appeared in the child's speech and frequently used in the response to question such as where is your Mom? Where is your toy? Where is your sister? The frequent use of “this” and “that” indicates that child knows the difference between them. So, one can claim that the noun class has been acquiring since the age of 18-19 months. Appearance of the preposition in this stage is also another evidence to prove it.

Adjectives appeared at the age of 18-19 months. The table shows that the child has frequently used them. Therefore, one can claim that the child has been acquiring adjective class since this stage.

/Doxtare xub/, good girl

/arusak ghashang/, nice toy

/keyke xoshmaze/, delicious cake

/kam/, little

/dagh/, hot

The following utterances depicts that the child has started acquiring the complements at the age of 21 month.

/xabidi/, are you sleeping?

/ dares avordi/, have you brought it out?

/ bordesh khune/, took it home

At the end of 22 months, child has frequently used function word of “ra” which is associated to object in Persian language. Using function word “ra” with pronouns “this” and “that” indicates that child has been acquiring determiner phrase since this time.

/ ino bebar/, took it

/ ino bede/, give it

/lebas avaz kon/, change the shirt

/charx biyarim/, bring the bicycle

5. DISCUSSION AND CONCLUSION

It is noteworthy to mention that the study of one child will not provide enough information to give a general result about language development in children. As it is mentioned before this process is different from child to child.

The result accounts that syntactic development in Persian language occurs with verbs and continues with nouns, adjectives, complements, and determiners respectively. Furthermore, the child acquires functional categories and lexical categories simultaneously. This study indicates that the Persian-speaking child has acquired syntactic groups at the end of 2 years old.

REFERENCES

- Bruner, J. (1983). *Child's Talk: Learning to Use Language*. Oxford University Press.
- Chomsky, N. (1959). A review of B. F. Skinner's verbal behavior. *Language*, 35(1), 26-58.
- Chomsky, N. (1980). *Rules and representation*. New York: Columbia University Press.

- Christophe, A., Millotte, S., Bernal, S., & Lidz, J. (2008, March). Bootstrapping lexical and syntactic acquisition. *Language and speech*, 51(1-2), 61-75.
doi:10.1177/00238309080510010501
- Clark, E. V. (2009). *First language acquisition* (2nd ed.). Cambridge: Cambridge University Press.
- Langley, P. (1982). A model of early syntactic development. In Proceedings of the 20th annual meeting on Association for Computational Linguistics (pp. 145-151). Association for Computational Linguistics.
- Lund, N. (2014). *Language and thought*. Routledge.
- Lust, B. (2006). *Child language: Acquisition and growth*. Cambridge: Cambridge University Press.
- Radford, A. (2004). *English syntax: An introduction*. Cambridge University Press.
- Simon, H. A. (1996). *The sciences of the artificial* (3rd ed.). Cambridge, MA: MIT Press.
- Thuresson, J. (2011). The syntactic development in the earlier stages of children's first language acquisition: How does the process of morphemes function during the child's 12 to 24 months? Retrieved from <http://www.diva-portal.org/smash/get/diva2:480083/FULLTEXT01.pdf>
- Yule, G. (2010). *The study of language* (4th ed.). New York: Cambridge University Press.