

Descriptive study of First Language Acquisition in Developmental Psycholinguistics

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ABSTRACT: The study of Developmental psycholinguistics covers areas of how human mind develops through stages to acquire language. Language is the supreme form of expressing ideas, thoughts in symbolic form. These symbols or signs are subjected to encode and decode properly for an effective communication. Evolution of human beings and plenty of research thereby proves First Language Acquisition (FLA) as an unconscious, spontaneous process purely based on instincts. Systematic study done on children right from the birth has provided fascinating theories with distinct developmental stages. Although the faculty of language is subjected to have some variation in cultural and individual level yet universal acceptance of these theories assist the field of Developmental Psycholinguistics to establish and explain various facts of language development.

KEY WORDS: Developmental Psycholinguistics, communication, FLA, Theories, Stages

INTRODUCTION: Developmental Psycholinguistics studies the progressive aspect of individual's ability in comprehending, producing and acquiring language. It has linkage with cognitive field of studies which include neuroscience, psychology, sign language, artificial intelligence, philosophy, logic. Right after birth child starts to interact with the environment but basically the native language which s/he acquires first is studied as First Language. It is on the basis of first language of the child that Second Language Acquisition takes place. FLA in Developmental Psycholinguistics studies how children's interaction with environmental inputs helps in acquisition and production of language at different stages. FLA is full of errors as the child is engaged in the process of base formation. Child receives the language input majorly from parents and significant amount from the process of internalization. The history of psycholinguistic theories is dominated by two prominent views i.e. Wilhelm Wundt's Behaviorist aspect and Chomsky's Cognitive aspect of psycholinguistic activity.

Acquisition v/s Learning: Acquisition is a subconscious process without having proper knowledge of grammatical rules. Acquisition is more prominent in first language as it is more natural and spontaneous. However learning is the outcome based on instructional forms of rules. It is conscious, pre-determined and structured.

THEORIES OF LANGUAGE ACQUISITION: Three broad theories of FLA are discussed hereby.

- 1. Behaviourism/Imitation:** According to the proponents of this theory language acquisition is considered as purely based on imitation or repetition of environmental inputs. The correctness and reinforcement which adults provide supplements child's acquisition. Eventually it was supported because while asked to repeat the sound several times, the child imitates and produces or at least attempts to produce similar sound. But many criticisms came out against the theory. Arguments arose that children do imitate many sounds and vocabulary but in terms of irregular grammatical patterns mere imitation is not enough. Examples can be derived from FLA of English language learners when encountering such children regularize the irregular pattern of sound as *goed for went, *bringed for brought, *taked for took, *childs for children. Later in the course of their acquisition they work on such faulty patterns and use correct forms. Notably no adult use such regularizes faulty pattern in first language. For this reason the theory of imitation is been immensely criticized. Behaviourist theory is based on stimulus response learning which considers all learning activities as establishments of habits via reinforcement or reward. Incorrect responses are not encouraged thus the child choose to discard them. This is more of a trial and error sort of learning. It ultimately results in fluency in communication. FLA only by imitation is not completely correct. It involves some maturational patterns of learning with imitative process.

Major proponents of this theory: Ivan Pavlov who focused on classical conditioning of learning by an established response becomes attached to a new stimulus. J.B. Watson argued that child's environmental factor shapes behavior over their natural temperament. B.F. Skinner emphasized on trial and error learning of FLA by means of voluntary response termed as operant conditioning.

2. Innateness/Mentalism: Innateness or the Mentalist theorist strongly believes that language acquisition process is structured and present in the child since birth. More than environmental inputs it is the predominantly present mental mechanism that results in language acquisition as normal process of learning. Noam Chomsky in 1959 critically analyzed Skinner's *Verbal Behavior* (1957). Chomsky justified that even the complicated rules, abstract grammatical relations and degenerated data is mastered by the child within short span of time. Child is addressed with native speech which consists of complicated irregular grammatical structure. Language Acquisition Device (LAD) which is present in child helps to grasp language input. The child understands how language works and the underlying principles thereby. The child has the lucid knowledge of grammatical paradigms and set principles which is termed as Universal Grammar (UG). In terms of FLA, innate mechanism of UG acts as structural support to environmental, cognitive and individual factors. Child uses the LAD to make proper sense of inputs that s/he acquired from environment. Child through learned set of rules governs the way to form a grammatically correct sentence.

3. Cognitive theories: Cognition is linked with intellectual ability of the child. Cognitive theories try to explain that the child's intellectual development has major contribution from mental process of acquisition. This includes acquisition of knowledge, storage and retrieval for problem solving. Language acquisition is possible only if the child has the ability to conduct cognitive activities properly. Children should grasp the concept first to acquire the language in which it is expressed.

Genevan Psychologist Jean Piaget's cognitive theory has proposed parallel linkage between stages of cognitive development and acquisition of language. Child form schemas as building blocks of knowledge that enable them to form mental representation of the concept. Piaget proposed four stages of cognitive development

- Sensory Motor Stage: (0-2 years) During this period the child 's cognitive system is limited to motor reflexes. So language skills include experimenting sounds with mouth, hand gestures and imitations.
- The Pre Operational Stage: (2-6 years) children at this stage are ego centric and self-oriented. During this period they are in the process of adaption and representational skills. They understand number based and spatial concepts. The concept of time is clearer for them now; successfully determine past and present forms. They are able to distinctly understand abstract and concrete concepts.
- The Concrete Operational Stage: (7-12 years) Children within this age can understand different points of view on different concepts. They are able to do logical reasoning, conceptualize things. Use of language is specific by now.
- The Formal Operational Stage: (12 year onwards) Piaget considered this as final strategy of development as the child could analyse logical, abstract things by now. They can use language in diversified way.

Environmental Input for FLA: Acquisition from the environmental data implies all the sounds that the child hears from parents, caretaker and family members. Contrary to the Innateness theory studies proved that while talking to babies parents (generally mothers) use much simple language that gives the child maximum possibilities to adapt. This is termed by researchers as Motherese, Child Directed speech (CDS), Babytalk. Catherine E. Snow and Charles Ferguson are prominent figures who proposed this concept. Newport and Gleitman (1984) emphasized that motherese helps immensely in the basic acquisition stage of children as a special psycholinguistic property. This simplified interaction helps the child to develop more adaptations.

Common Motherese features are as follows:

- Omit functional words , speech contains only content words (I eat, come here)
- Slower speech with maximum use of melody and tone
- Repeated utterance
- Use of simple syllable structure(dada, pa)
- Often use diminutive or reduplicated form of words (doggie, coco)
- Parents generally reinforce the child to take turn

Although counter evidence appeared in many studies that Motherese does not stimulate FLA, there is still high relevance that maternal or paternal input influences language acquisition to a greater extent.

History of FLA studies: Various methods and theoretical notions have been used to determine stages and development of FLA.

- 1. Diary Studies (1876-1926):** G. Stanley Hall in North America and William Preyer in Europe for the first time started to study the stages of development of child's language acquisition with the help of parental diary format. In this type of study parents were required to note down every minute development of child from motor development to responses with specific information. Parents turned into an observer. Eventually Preyer (1889) published elaborate form of baby biographies but these are extensively subjective and tend to vary. These studies were informative because parents acted as observer so child feel ease while interacting. While negative aspect of such studies were that it was time consuming, some important developments may go unnoticed, variation in stage and developmental aspect may arise because of individual or cultural differences. Notably parent observers educational qualification especially linguistic awareness should be pre examined otherwise data might be misleading. Major diary studies are Trainé's 1877 study on his daughter published in *Mind*. Preyer (1889) conducted study on his son Atel. Wilhelm Stern's *Die Kindersprache*(1907). Leopold (1939-149) on his daughter Hidegard (0-2years), Smith (1973) on his son A .
- 2. Large Sample Studies (1926-1957):** With the rise of Behaviourism during this period, Language Acquisition studies also shifted towards orienting the theories of behaviourism. However this behaviourism is different from the earlier notion of diary studies, where spontaneous behavior is recorded. Here, the Child's change in behavior was traced back to, explained by environmental conditions. Diary studies are more of descriptive behavior of child but in large sample studies the normal child behavior is systematically determined with thorough study. The irregularities that they may come across in any child are proceeded to take remedial measures. For this purpose large number of children is used. Then from each subject limited data is collected. This type of study is multidimensional as the sample size is big enough to conduct multi sectional cross studies. If categorize same aged children into one class typical behavior can be measured with ease, It is more systematic, constructed, normative data. Criticism for this type of study arises because as the sample size is big it is time consuming and costly, sometime individual difference may get unnoticed. Prominent people who conducted Large Sample Study are Madorah Smith (1926), McCarthy (1930),Day(1932), Fisher (1934), Young(1941) , Templin (1957) .
- 3. The Period of Longitudinal Language Sampling (1957- present):**In this method the child is visited after predetermined interval for predetermined period of time to collect

representative samples. It can be said as the mixture of the two above mentioned types of studies except it allows interval visits and limited subject. Subjects for the study are selected on the basis of who will meet the pre-determined criteria. The standard number of subject is three. For the purpose of the study the observer visits the children predetermined time with another visitor. One is supposed to interact with the child and other person records the interaction and takes note of important observation. Generally such sessions are tape recorded so that after transcription data should be studied properly. In this type of study sometimes the visits may be cancelled due to various reasons. Such absence may result as lack of accuracy in recording important observations. Also sometimes between two visits some development may occur which may not reflect properly as the duration of interval is long. Child may sometime hesitate to interact with ease. Nevertheless there studies provide thorough FLA stage and its development. Some of the well-known studies in this tradition are done by Miller and Elvin(1964), Brown(1973),Bloom (1970)

Stages of FLA: In this study stages of FLA are described through a comparative tabulated form as proposed by eminent researches,

Stern (1924)	Nice (1935)	Brown (1973)
Preliminary stage of first year with babbling, imitation preliminary understanding	Single word stage	Single word stage
First period (1.0-1.6 years) production of limited sounds with special ideas attached	Early Sentence stage	Basic semantic roles and minimum syntactic structure (agent, patient, word order)
Second period (1.6-2.0 years)vocabulary growth of noun, verb	Short sentence stage	Modulation of meaning, Acquiring grammatical inflectional morphemes
Third period (2.0-2.6 years) major grammatical acquisition of Subject, Object and Inflectional marks, range of question expands.	Transition to complete sentence	Complex sentence structure, use of clause and phrase structure
Fourth period (2.6 years onwards) Acquisition of complex syntactical structure	Complex well-formed sentences	Coordination of simple sentences and propositional relations

-Ingram(1989)

Stages of FLA and its detailed developmental aspects differ in terms of definite age and definite developmental aspect. In the following section efforts have been taken to provide a general picture of FLA developmental stages among children.

One word stage

Stage 1: Child may produce noise like sounds at an early age which are not meaningful. In reality child is making reflexive, sucking, swallowing breathing noises. Child produces such sounds from birth to approximately six weeks.

Stage 2: After the child becomes 6-8 weeks of age, s/he produces cooing, laughing of those sounds s/he exposed to. Children start to experiment with their tongue to produce sounds.

Stage 3: Vocal play of sounds longer than cooing. Child develops CV structure with repeated utterances, mostly limited to bi-labial uvular sounds.

Stage 4: This stage covers the age from (25 weeks to 30 weeks). Babbling sounds of the child is little different from earlier vocal plays, It has reduplicated form and more rhythm in it.

Stage 5: This stage starts from (9 months to 18 months) the child uses to utter word with more rhythm and tone. Questions of calling, greeting, command, statement can be differentiated by parents also use holophrase structure means uttering in simple open class words or word stems.

Two Word Stage: The child from about 18 months starts to produce short sentences mostly with 2 words. They start using dozen of consonant and vowel sounds. Children can perceive more words than the amount of words that they produce. They may use different words to denote same object. They mostly use [p] [b] [k] [r] [f] [d] [g] [m] [n] and mostly all vowels as proposed by 1971 survey of 100 English children. Also some children use same word for different objects, mismatch of sound and object etc. occurs. As it is the transitional period to more constructed sentence producing stage so the child uses telegraphic form of utterances. Telegraphic form of utterances consists of only content words in SV, SVA, SVO structures.

Multi Word Stage: This stage starts from (3-4 years) of age. Children of this stage use almost all Vowels and consonants. But they have difficulty in producing sounds like [ə] [ɔ̃] [dʒ] [ʒ] some of [l] [ŋ] [t] [z] often gets replaced with similar sounds. While producing sounds where fricative is followed by stop, fricative sound gets deleted. [tɔp] for stop. Children omit difficult sounds at the word boundary. [l] [r] these two sounds get replaced

by [w] [j] or many a time [] is used in place of [r], such as [lɛd] for [rɛd]. However children of this age use proper word order and correct sentence structure.

Later Language Development: Child around the age of 7 starts to develop more correct sentences in sophisticated form using words like really though, what if, of course. They learn to use passive sentences. Upgrade from yes/no question to more complicated question formations “Why won’t you go?” “Can you come?” Also children learn to use relative clause “I went to the place that you said.”

Later after attaining school child develops more semantic knowledge. As they acquire language from formal setting apart from oracy, literacy and proper linguistic skill develop. Earlier parsing was prominently applied in school later learning by using ‘language in use’ approach has started to use widely.

Children learn to read and write language. Even then language reading develops in period stages one word stage, two word stage, simple sentence stage, coordinated sentence stage. Finally child attempts to reading of passage form.

Similarly to write FL or even SL Child have to develop writing more than as motor skill, writing should include linguistic phenomena also. Child gradually develops writing from preparatory stage of letter writing, spelling system, sentence formation, diverse experimental writing (may consist errors) to reflect cognitive development. Finally Child becomes a mature writer as s/he can integrate phrase, good command over language that enables to present critical views with stylistic expressions.

CONCLUSION: FLA is completely based on Child Language Acquisition. As it is the first exposure of child with any organised speech sound. The native language helps the child to form base structure and ability to grasp L2 learning. Predominated by Watson, Pavlov’s Behaviourism, FLA has long been studied with multiple approaches and concerns in terms of input mechanism. Chomsky, Piaget, Fergusen, Stern Brown has forwarded notable, gradual updates with their eminent studies on FLA. Recent studies have diversified with inclusion of socio cultural factors and how they stimulate and influence FLA.

The study conducted hereby is a descriptive report on FLA in Psycholinguistic, It’s growth and development over the period accounting the earlier methods of FLA studies, existing theories and their stages. Hope this report will be helpful for future FLA researchers to account overall note FLA.

REFERENCES:

1. Lennenberg, Eric(1967) Biological Foundations of Language, New york: Wiley
2. Ingram, David 1989. First Language Acquisition, Cambridge: Cambridge University Press

3. Carroll, David W. 1994. Psychology of Language. California: Books/Cole Publisher Co. Publisher Co. Publisher Co California
4. Kaplan, B 2002 The Oxford handbook of Applied Linguistics. Oxford: Oxford University Press
5. Schmitt, N. 2002. An Introduction to Applied Linguistics. London: Arnold
6. RitikaSinha 2017, Developmental psychology , FLA and Indispensability of Input