FIRST LANGUAGE ACQUISITION "THE ACQUISITION OF PERSIAN"

Dr. M. Faheem

Allameh Tabatabaee University

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

Abstract

Two fundamental insights underlie most recent researches on language development. The first is the realization that the child does not merely speak a garbled version of the adult language around him. Rather, he speaks his own language with its own characteristic patterns. Thus, it is quite appropriate to study a child as the speaker of a specific language to describe its structure by means of a "grammar". The second insight is that the child himself must act as a linguist: he/she is faced with a finite set of utterances from which he must extract the underlying rules in the remainder of his/her life. As far as the universal aspects of language are concerned, many languages must be examined all over the world, and as far as I have investigated, no systematic major study has so far been done on the acquisition of Persian. This point is supported by the personal report obtained from Julia S. Falk (Michigan State University) who writes: "I know of no major studies on children's acquisition of this (i.e., Persian) language, and therefore your study could provide an important contribution to knowledge ..." . The subject of the study was the language performance of the author's own child. This study took a long time to collect the required data of her daily productions. The main concern was the subject's cognitive development to see: 1. At what stages she relates sounds to meaning. 2. Her phonomorphosyntactic and cognitive development. 3. The traces of language universals in the acquisition of Persian language compared with the facts about the universals in other languages. A careful study, that is, the precise observation, taking notes on the subject's behaviour, and tape-recording, started when she was only seven months old and went on till she became 34 months old. For 27 months, over 700 notes were written on her productions. All sounds and sound combinations which she produced were related to certain meaningful actions: they were also recorded in four cassettes to make further checks possible. They helped me control the written notes in order to provide a more accurate phonetic transcription. Her 27-month productions have been divided up into five different stages. Each stage has clearly pictured the developmental processes of the Persian language; that is, phonomorphosyntactic and cognitive development. Each stage is provided with its related tables. Appendices A and A Cont. present the "Final Table" introducing the subject's phonological development from 7 to 34 months of age. Appendix "B" introduces the outline of these stages.

Introduction

The ability of children to communicate, especially at the early stage of their lives, is quite remarkable. When they are very young, they start crying, cooing, babbling and gradually begin to send a great number of messages, either vocally or nonvocally, and at the same time they receive even more messages.

When they are about 12 months old, they begin to produce some of the speech sounds and even words they hear in their environment. They produce one word for one sentence which is known as "holophrastic" utterances.

The number of words produced by children, by about 17 to 18 months, has remarkably multiplied, and they make specific attempts to make combinations of their produced words in order to form two-word and even three-word "sentences". This new combination of words is commonly reffered to as "telegraphic" utterances.

From the age of 20 months onward the child will gradually increase the production of more and more words on the one hand, and combine his two-and-three-word sentences on the other hand. When the child is about 3 years old, s/he can easily understand a surprising quantity of linguistic behavior. Her/his speech capacity grows so rapidly that s/he can have continual conversation as s/he generates a lot of new structures, though s/he does not know the real meaning of the expressions s/he produces.

Significance of this Study

As far as the universal aspects of language are concerned, many languages must be examined all over the world so as to find more pieces of evidence for "Language Universals".

To the time of this research study (1995), as far as I had investigated, no systematic major research on the acquisition of Farsi had been conducted. This fact is also supported by personal report obtained from Julia S. Falk (Michigan State University) who writes: " ... I know of no major studies on children's acquisition of this (i.e., Persian) language, and therefore, your study could provide an important contribution to knowledge ...".

Thus, I decided to study the language developmental processes of my own child. Following the theory that "as soon as there are meaningful expressions we may say there is language", I paid a close attention to the subject's cognitive development from the earlier days of her life. But my careful studies, i.e. precise observation, tape-recordings, and writing notes on her behaviors, started when she was only seven months old and I went on upto 34 months of her age.

Statement of the Problem

In this case study, I have focused on my subject's cognitive development to see:

1. at what stages she relates the sounds to meaning;
2. to trace the processes of her phonological, morphological, and syntactic development at different stages.

Theories of First Language Acquisition

The rapid growth of children in acquiring a language is dramatically amazing. And theories of first language acquisition try to find out how this rapid change takes place. Rationalists emphasize on intrinsic or innate principles in mental operations and learning. They believe that organizing principles either directly or, at least, indirectly guide man's perception and learning by predisposing man to operate in a certain way.

Empiricists, on the other hand, believe that experience and environmental factors shape the organism, and the result is the creation of social modes of behavior. They do not believe in innate organizing structure. They believe that the innate ideas of man are actually the product of environment which are somehow transmitted by the senses. This view of modern behavioral science is relevant to the problem of language acquisition.

Rationalism, in this sense, would attribute language to the store of common notions and innate organizational universals that guide much of

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

human activity. The point is that the specific knowledge itself is not there, but organizational principles for perceiving, organizing, and using such knowledge are. These innate universals are present not because of specific experience but because of the nature of mind (Kess, 1980).

The first language is acquired through gradual differentiation in phonological, morphological, syntactic, and semantic aspects. At first a child starts with undifferentiated categories and then gradually extends and changes his classifications. He starts with concepts of sounds and goes on to make patterns by a series of differentiations, this making and remaking of new patterns continues until he establishes a system based on oppositions and functional contrast, but this system is not similar to the system of adult speakers yet. Later on this constant continuation of making and remaking of new patterns will help the child's language to approximate that of the adult speaker (Garman, 1987; Radford, 1992).

Chomsky distinguishes I-language from E-language. He maintains that E-language linguistics aims to collect samples of language and then to describe their properties. E-language is a collection of sentences understood independently of the properties of the mind. I-language linguistics is concerned with what a speaker knows about language and where this knowledge comes from; it treats language as an internal property of the human mind rather than something external. Thus, the grammar consists of principles and parameters. Chomsky believes in a sort of movement from an E-language to an I-language approach that shows language as a system represented in the mind/brain of a particular individual (Chomsky, 1988).

Methodology

This research study benefited from a naturalistic approach; naturalistic approach suggests the E-language method of study of the acquisition of a language. In naturalistic approach you are dealing with countless pieces of evidence, whereas in experimental approach you have to conduct many experiments to find certain pieces of evidence.

Researchers believe that the strategies for acquiring language are quite similar, thus the sequence of the developmental stages and what the children acquire at different stages must somehow be highly the same for all children all over the world. Children do not simply imitate the adult speech; they speak a separate language of their own.

Analysis of the gathered data lead to keeping a good track of the phonomorphosyntactic development of the subject as well as her cognitive development. Her daily productions – divided up into five stages – were sorted into the following lists:

– a monthly list of new sounds;

– a monthly list of new sound combinations;

– and a monthly list of new words and word combinations. Each stage is also provided with its related table(s), chart(s), and list(s) of word combinations.

A comparison between any of the two successive months would clearly demonstrate the developmental processes of her language in different areas.

Stages of Developmental Processes

The 27-month productions of the subject have been divided up into the following five main stages:

0-12 months: Prelinguistic period

12-18 months: Single-word production period

18-24 months: Early multi-word production period

24-30 months: Later multi-word production period

30-36 months: Early adult-like production period

Stage one: 0-12 months (prelinguistic period)

The prelinguistic stage is the period before the development of the child's first words. Because of the lack of words and word combinations in this period, the division goes under weekly divisions instead of the monthly divisions of other periods. The weekly divisions roughly include the following periods: 0-8 weeks; 8-20 weeks; 20-30 weeks; 30-50 weeks. 0-8 weeks, we usually witness reflexive crying. Children cry, fuss and produce vegetative

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

sounds like burping, swallowing, and spitting up. 8-20 weeks for cooing, babbling and laughter. 20-30 weeks for sound segments which are longer than in cooing stage, and the last weekly stage is 30-50 weeks. This period is exactly equal to 7-12 months of age in my case study. At this period, vowels and consonants appeared. Sound combinations were going towards the production of a few words.

In prelinguistic period, a researcher should pay a close attention to every single sound which is produced; the produced sounds can resemble vowels, consonants, or vowel-consonant, consonant-vowel or other combinations.

This stage is also referred to as the stage of reduplicated babbling. In reduplicated babbling stage, sounds are combined with the repetition of certain consonants, for instance, the /d/ sound is repeatedly produced in combinations such as /dæ/ , /dæ/ , /dæ/ and /də/ , /də/ , or the /m/ sound is repeatedly produced in /ma/ , /ma/ , /ma/ and /mə/ , /mə/ , /mə/ combinations. Reduplicated babbling has been defined as the production of consonant-vowel syllables in which the consonant is the same in every syllable (Fletcher and Garman, 1988).

The significant point of this period is her overextension. First she learned to produce a kind of /bæ/ sound, then she began to relate her produced sound to certain somehow similar entities in her environment. Every single face on T.V. screen or any new person was /bæ/ , /bæ/ for her. She kept producing her /bæ/ , /bæ/ sound until the picture went away or the person was gone.

At this stage, a child, I believe, does not realize her physical being within her own environment and that is why she comes to recognise items and objects before recognising the parts of her own body. She would immediately look at the clock, a picture on the wall, the T.V. set, the radio, and some other objects when she was asked where they were. Several times I had tried to teach her that: "this is your hand". But when she was asked : "where is your hand?" she couldn't discover that it was her hand and she would look around herself as if she was trying to find something. Therefore, I concluded that a child learns about things in the environment before learning about the parts of her own body.

In her prelinguistic period when the subject was about eleven months old, she produced her first question word for question form structures. She produced a sort of /bu/ , /bu/sound for /ku/meaning "where is ...?".

Typical vowels and consonants she produced in her prelinguistic period (7-12 months of age) are introduced in Table 6 on page five:

Stage Two: 12-18 months (Single-word production period)

This stage is also referred to as non-reduplicated babbling. Reduplicated babbling is replaced by babbling in which vowels, consonant-vowels and consonant-vowel-consonant syllables may all appear in a series. Within this series the consonant(s) as well as vowel(s) may differ from one syllable to another.

The rate of production, comparing this stage with stage one, dramatically sped up, therefore, we had to prepare ten tables and six summaries for the production of vowels and consonants. At this stage, for months, she produced only /ɛ/ as a new vowel, but the production of combinations were numerous! In order to provide a better definition for these combinations which are getting meaningful, they are referred to as "nomenclatures" from this stage onward.

Negation started at this stage

When the subject was about 14 months old, for the first time, she produced the /næʔ/ sound for /næ/meaning "no". She was not always correct on giving an appropriate negative answer to the question requiring a negative answer, but almost always she was right. For example, when she was asked: /xabet miyad/, meaning "are you sleepy?", most of the time the answer was /næʔ/ and sometimes she didn't answer at all. When she was hungry and we showed her something to eat, she would try to get it, but when she was not hungry she would say /næʔ/ to reject it.

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

Table 6. Phonological system: the subject's production of vowels and consonants between 7–12 months of age

7–8 months		8–9 months		9–10 months		10–11 months		11–12 months	
vowels	consonants	vowels	consonants	vowels	consonants	vowels	consonants	vowels	consonants
/e/	/d/–/t/	---	*/ρ/	/ i:/	*/¢/	---	*/ʔ/	/u:/	----
							[x]	/a/	
/u/	/x/–/ḥ/				/k/			maybe	
/æ/	/m/–/n/				/g/				
	/p/–/ñ/								
/u^{h}/	/b/–/θ/				*/β/				
/ə/									
/o/									

*/ρ/ = bilabial fricative (voiceless) */β/bilabial fricative voiced

*/¢/ = affricated alveolar */ʔ/ glottal stop

It seems that in rare cases children prefer to produce a word with a more difficult pronunciation rather than the real and easier pronuncition of it. The word/næ/ for example, in the above case is made more difficult by the child when she produces it as /næʔ/ for /næ/ meaning "no".

Experiments to Check Cognitive Development

At this stage four experiments were conducted to examine her cognition.

Experiment One

Asking her where any members of the family were, and hearing the name of that member she would look at him or her. When, for example, she was asked: "where is Mummy?" she looked at her mother, or "where is your brother?" she looked at her brother. But when we asked her. "where is Ali?" she looked around herself as if she was looking for someone.

This proves that she is aware of the meaning of brother, mother, and father, but not the strangers, i.e., when the name is not known to her, she looks around to find someone to match for the name, someone out of the family circle.

Experiment Two

The second experiment proved that she could also recognize the members of the family by their pictures, several pictures were shwon to her–showing the pictures of her father, mother, or her brothers, she would produce the words for them in her own way of production, e.g. /bəbə/ for /baba/ meaning "Daddy", /məmə/ for /maman/ meaning "Mummy", /dədə/ for /dadaš/ which is a title that stands for "brother". But for all other pictures, she would just look at them, then gaze and nothing was produced. This proves that the child, at this stage, is able to recognize the members of the family through their pictures, whereas if she sees the picture of a stranger, she may not show any reactions.

Experiment Three

This experiment also proved her recognition of the members of the family. We used to give her a book or another object and without pointing to or looking at anyone, we told her: "give this to your brother" or "give this to your mother". Without giving any other information, she would directly go to her brother or her mother or any other member of the family whose names were mentioned.

Experiment Four

This experiment proved that she never confused to bring things she didn't know their names for the things she knew their names. She is actually developing her ability of "word association" which is the very basis of all human learning. Word association

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

refers to the case that the child recognizes that every entity within her environment has got a name for itself. Conducting this experiment, without giving her any hints or pointing to the objects, we told her to bring them to us, e.g. we asked her: "bring us a book" or "bring us a (toy) car" or "take the pen to your room". If she knew the name of the object, in other words, if she knew how to associate the entity with its name, she would take the errand properly. When we gave her a strange name, she didn't even show any reactions. So we may conclude that word association is actually shaping at this stage.

As mentioned before, at this stage negation started by saying /næʔ/ for /næ/meaning "no". Now she learned how to produce the /næ/ sound for a negative answer. There seemed to be a sort of confusion for the usage of /næ/ meaning "no" and /bæle/ meaning "yes"; that is, she would say /bæ/ for /næ/, then, after a short pause she would change it to /bæ/ for /bæle/ meaning "yes" for a positive answer. This confusion didn't last long; after a few days she was able to use both productions properly.

The words she produced at her single-word production period could convey certain ideas; e.g. /pup/ for /tup/ meaning "ball", /bæ/ for /bærf/ meaning "snow", /abæ/ for /ab/ meaning "water", and some of the other productions of this period could have different interpretations by adults, each of which could resemble sentences containing specific meanings. When she says /pup/, it could have different interpretations such as: "I like the ball" , "give me the ball", "throw the ball" , "take the ball" or some other possible meanings. This stage is technically known as the "holophrastic" production period.

At the earlier months of this stage, she had learned the name of some people, things and objects in her environment—a list of about 25 items, but she did not know the name of any part of her own body. Now that she was about 15 months old, she was gradually getting to know what "hand", "foot" and "hair" meant. When we asked her: /dæstet͡ʃ ku/ meaning "where is your hand?", she would raise her arm and produce /dæ/ for /dæst/ meaning "hand". For her foot she would only raise her leg and for her hair she referred to her hair without producing any sounds.

At this stage, when she was about 15 months old, she was able to produce the following animal sounds when we mentioned the name of "dog" , "cat" , "donky" , "crow" and "sparrow". It is worth mentioning that she had not heard these animal sounds directly from the animals themselves, but she was imitating what she had been told. The chart bellow introduces the way we asked her questions and how she responded.

Questions	Responses
1- What does a dog say?	/həp həp həp/ the bark of dogs.
2- What does a cat say?	/mæñ mæñ mæñ/ the mew sound of a cat.
3- What does a donky say?	/æy æy æy/ for /ær ær ær/ the bray of a donky. (She was not able to produce /r/.)
4- What does a crow say?	/gə gə gə/ for /qar, qar, qar/ the cawing of a crow.
5- What does a sparrow say?	/ǰiʂ ǰiʂ ǰiʂ/ for /ǰik, ǰik, ǰik/ the chirp of a sparrow.

This chart shows that children can imitate animal sounds at the level of single-word production. That is namely because of single-syllable form of these sounds.

Fewer Sound Productions, but more Sound Combinations

At this stage (12-18 months), although she produced only two vowels and five consonants, her ability of making sound combinations showed a remarkable progress. Her nomenclatures also demonstrate some evidence of very early multi-word

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

utterances which prove her developmental processes in different areas.

This decrease in sound productions may give way to the increase of making and remaking of sound combinations in order to produce many new meaningful words—about 25 quite meaningful words—by the end of this stage.

Stage Three: Early Multi-Word Production Period (18-24 months)

In the acquisition literature, various names have been given to this stage such as: Telegraphic Speech, Early Pattern Speech, Early Grammatical Speech, Early Multi-Word Speech and so on. This is when children can put words together in systematic patterns to produce elementary phrases and clauses for the first time. Children typically enter this phase of grammatical development at around 20 months of age and progress to a more advanced and more adult-like stage of development at around 24 months of age (Goodluck, 1989).

It is traditionally believed that at one-word production stage children's speech has no syntactic feature. Bühler (1992) believes that there is no syntactic structure at single-word production period and he calls it "asyntactic"—without syntax—period. At stage two, the subject produced only a limited number of words—about 24 or 25 words—but at this stage she produced more than 212 new meaningful words and word combinations, and for the very same reason I couldn't go on with those little charts I had at previous stages; by no means were they sufficient, so I had to have six summaries, eight charts, and six long lists for new words and word combinations. They all demonstrated the phonom-orphosyntactic and at the same time cognitive development of the subject at this stage.

This period of about six months might seem so short in the child's linguistic life, but this certain period in the child's grammatical development is of a supreme importance for any attempt to build a theory of language acquisition. This is the period when we can clearly find evidence that the child has begun to develop a grammar of the language being acquired. During this period any theory of language acquisition must study:

a: the extent to which children's initial grammars are shaped by innate linguistic principles.

b: the point that different principles become operative.

c: the ways in which the relevant principles interact with the child's linguistic experience.

The data used as the empirical basis of this study comprise a corpus of more than 100000 utterances of spontaneous speech of young children between one and a half and three years of age (Radford, 1990).

So we can say that at the stage of one-word speech, children have both phonological and semantic properties, but have no syntactic properties yet. And this is why they cannot produce structural units—phrases or clauses—in any productive way. Between the ages of 18 and 24 months, children start to combine words together in systematic patterns; in other words, they have started to build up their basic principles of grammar—making phrases, clauses, and sentences—in the language they are acquiring.

Pivotal Structures

Pivotal structures refer to the juxtaposition of words in two-word utterances. By looking at the position of each word (first or second) and at words it occurred with, they are offen classified in two groups of "pivots" and "open class" words. The first group is called pivots, because the utterance appears to pivot round them. The other class contains many more words which occur less frequently (Clark and Clark, 1977; Aitchison 1995).

At this stage children get to their pivotal structures. My subject began with the following pivots:

/ama/ for /amæd/ meaning "came"

/dææ/ for /ræft/ meaning "went" (away)

/ba/ for /biya/ meaning "come" (here), or "take this"

/b̂u/ for /k̂u/ meaning "where is ...?"

Putting each pivot word along with a number of the words she had already learned, she created new structures shown below:

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

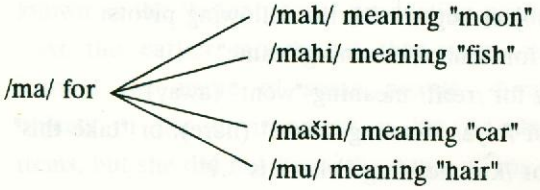
second-class words	pivots
/bəbə/	/ama/
/mama/	/dææ/
/dədə/	/ba/
/æmu/	/b̂u/
/anna/	
/pi̯ši̯/	

A Note on Cognitive Development

I believe that the child's cognitive development is quite far ahead of her language development; i.e., my subject understood a lot more than what she was able to produce. This is not a point being discovered at this stage, even before starting to produce one-word utterances, she was able to express herself by means of signs and pointing to objects and persons. Now that she could produce two-word utterances and could even combine them, you could easily and clearly see that she did a lot of different things that she was not able to speak. If she spilt water or tea on the carpet, she would immediately fetch a piece of cloth and start cleaning it. This is directly related to her mental development that proves her cognitive development.

A Single Sound for Different Objects

It seems that children use a simple sound combination for more than one object to which their initial sounds are similar. My subject was using a single sound combination of /ma/ for four different entities all of which start with /m/ sound and three of them share the same sound combination of /ma/ at the beginning. Look at the following diagram:



In this diagram the words /mah/ , /mahi/ and /mašin/ have got the /ma/ sound combination at the beginning, but /mu/ is different, it only shares the /m/ sound with the other words. Possibly that is why she changed /ma/ for /mu/ to its real pronunciation of /mu/ earlier than the other three words. However, for the other three words it remained the same for a long time.

Generalization Started

When she was about 20 months old, she learned the names of the members of the family rather than their titles. Instead of saying /dada/ for /dadaš/, she would call her brothers by their names; /æmid/ for "Omid"–her older brother – and /ʂ̬æyid/ or /yæyid/ for "Farid" – her youngr brother. She also learned to produce /agə/ for /aqa/ meaning "sir".

Then she started to generalize her /dada/ sound combination for all young boys; either the same age as her brothers, or a little younger or older than them. Then she generalized her /agə/ sound combination for all men and /mow/ sound for big animals such as cows, elephants, etc. The moment she saw the big animals on T.V. screen or their pictures in books, she kept producing her /mow, mow/ sound for them.

Self-correction

Comparing their productions with the adults', children try to correct their utterances by themselves. My subject began to change her /ma/ sound meaning "hair" to its real pronunciation, i.e. /mu/. And this was, somehow, the first sign of self-correction at this stage, then she started to change many of her other productions through her own self-correction. The related chart on page 9 introduces some of these corrections.

Self-expansion

At this stage children, usually, expand their use of pivot words. Adding reduplication to her pivotal structures, my subject started her self-expansion.

The following chart shows how the child is expanding her production by means of repeating her second-class words more than twice and then adds her pivot words to them:

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

Self-expansion through reduplication	Meaning
/bəbə bəbə bəbə biya/ for	"Daddy, Daddy,
/baba baba baba biya/	Daddy, Come".
/piṣi piṣi piṣi næya/for	"cat, cat, cat,
/piši piši piši næya/	don't come".
/dədə dədə dədə dææ/ for	"brother, brother,
/dadaš dadaš dadaš ræft/	brother, went (away)".
/mamə mamə mamə amə/for	"Mummy, Mummy,
/maman maman maman amæd/	Mummy, came".

Note: /biya/ as a pivot word meaning "come here" was used for everybody and everything but the "cat" i.e. for the "cat" she preferred to say /piši piši piši næya/ meaning "cat, cat, cat, don't come here". This shows her cognitive development; she did not like the cat, therefore, the cat shouldn't come.

Examples for self–correction explained on page 8:

At single-word stage	At Early Multi-word stage
/ma/	/mu/
/ma/	/məhi/
/ma/	/məṣin/
/abə/	/əb/
/deṣ/	/ʧeṣ/
/æwæ/	/yæyam/ or /sæyam/
/ba/	/biyə/
/ba/	/pə/
/bu/	/k͡u/
/giye/	/k͡iye/

Real pronunciation	Meaning
/mu/	"hair"
/mahi/	"fish"
/mašin/	"car"
/ab/	"water"
/češ(m)/	"eye"
/sælam/	"hello"
/biya/	"come (here)"
/pa/	"foot" , "leg"
/k͡u/	"where is ...?"
/k͡iye/	"who is it?"

Pluralization

At about 21 months of age, she was able to produce words such as: up, down, more, again, to, this, some of, what, yet, and so on. Then, the signs of pluralization appeared. The following chart introduces some of her plural form productions:

Singular	Plural
/dədəṣi/	/dədəṣiya/
/tutu/	/tutua/
/nini/	/niniya/
/bæbæyi/	/bæbæiya/
/dʰudʰu/	/dʰdʰua/
/məi/	/maiya/
/dʰudʰi/	/dʰudʰuiya/ or /ǰuǰa/
/nanaši/	/nanasya/

Real pronunciation	Meaning
/dadašiya/ or /dadašiha/	"brothers"
/tutuha/	"birds"
/niniya/ or /niniha/	"babies"
/bæbæiya/	"sheep" , "goats" in child language
/ǰu ǰu ˌ(h)a/	"insects"
/mahiya/ or /mahinha/	"fish" (plural)
/ǰuǰeha/ or / ǰuǰa/	(chiks)
/nanaziya/	"goodies" or "nice kids"

More Phonomorphosyntactic Development

We witnessed more changes in her sound productions, sound combinations, and lexical categories. She used to produce /ṣ/ for /x/, then she changed it

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

to /h/ and learned to say /habe/ for /xabe/ meaning "s/he is asleep". This phonological development took place only in initial position. In mid and final position it remained the same. She began to use this new morpheme as her new pivot word to construct many pivotal structures such as: /dədə habe/ for /dadaš xabe/ meaning "brother is asleep." /məmə habe/ for /maman xabe/ meaning "Mummy is asleep". /bəbə habe/ for/ baba xabe/ meaning "Daddy is asleep" and making many other structures with things and persons whose name she knew.

At about 22 months of age, she produced a "dental/alveolar implosive" sound [ɗ]. This is the only ingressive sound used in Farsi which functions as a morpheme. Commonly speaking, it is called /noč/ meaning "no" which is used for /næ/ in a friendly, informal conversation. Considering her cognitive development, she was quite aware of the function of her production, that is, she knew when to use her /noč/ – [ɗ] sound when she wanted to give a negative answer.

Imperative mood

At the earlier months of this stage, she produced two imperative forms: 1– /biya/ meaning "come (here)", and 2– /næya/ meaning "don't come (here)". Now at the age of 22 she was producing positive and negative imperative structures in more developed and expanded forms as shown below:

1. /bad næšæn/ for /bad næzæn/ meaning "don't fan (me)".
2. /pi̯ši biya, kayet nædayæm/ for /piši biya karet nædaræm/ meaning "cat come (here), I won't hurt you".
3. /be̯šoy, dæšæm be̯šoy/ for /bešur, dæstæmo bešur/ meaning "wash, wash my hand".
4. /biya pi̯šæm/ for /biya pišæm/ meaning "come to me".
5. /mæn be̯šoyæm/ for /mæn bešuræm/ meaning "let me wash".

At 23 months of age, she was not only producing many new combinations, but also she was able– through her self-correction–to produce most of her previous sounds quite smoother and closer to the adults' productions. Improvement in her word combinations helped to produce longer utterances which proved her gradual progress from her "early multi-word" stage towards her "later multi-word" stage.

Animation

She was asking the following questions from a chick kept in a cage:

– /išet ̂ čiye bæbuše/ for /esmet ̂ čiye fæ͡rnuše/ meaning "what is your name? Is it Farnoosh?"

– /iše babat ̂ čiye mæšuye/ for /esme babat čiye mænsure/ meaning "what is your Daddy's name? Is it Mansoor?"

– /iše mamayet ̂ čiye æzæme/ for /esme mamanet ̂ čiye æzæme/ meaning "what is your Mummy's name? Is it Azam?"

This one-way conversation! was interrupted by her brother and I could not get more of her productions. Some points are worth mentioning here:

1. Using a "wh" question, she is producing a complete question form sentence. (what's your name?)
2. She is easily using the connected possessive pronoun /et/ meaning "your ..." when she asks the chick: /išet ̂ čiye/ meaning "what is your name?"
3. She has discovered that every entity has got a name to be called with.
4. She imagines that the names of other beings are like her own name when she asks the chick: "is your name Farnoosh?"
5. She also imagines that every entity has got father and mother when she asks: "what is your father's name? or what is your mother's name?"
6. She also imagines that the names of other entities are the same names as her father's and

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

mother's names. And that's why she checks to see if the chick has got the name of her father's and /or her mother's name.

At this stage, she produces different pronouns such as "I" , "me" , "you" , "mine" , and "my" . Her final and mid /x/s are still /s̪/s, but her initial /x/s, which used to be /s̪/, too, changed to /h/ and is now changing to /x̪/ which is pretty close to the /x/ sound. Examples:

/miš̪am/ for /mixam/ meaning "I want"

/yæš̪/ for/ yæx/ meaning "ice"

/hune/ for /xune/ meaning "home, house"

/habide/ for /xabide/ meaning "... is asleep"

/hune/ and /habide/ gradually changed to /x̪une/ and /x̪abide/ which were closer to the adult's pronunciation.

And finally by the end of stage three, when she was about 24 months old, she had produced about 212 new words only for this stage.

Stage Four

Later multi-word production period (24-30 months of age)

At this stage, almost all utterances exhibit more development in morphosyntactic characteristics that suggest the emergence of "grammar", in general, of child's speech. At stage three only a few utterances had these characteristics.

Within a period of only two hours, my subject's utterances were more than eight, almost, complete sentences. She kept practicing all day long not only to prove her morphosyntactic and cognitive development, but also to improve her phonological development.

Uttering more words starting with /x/ sound, she was trying to change her /h/ for initial /x/ to a clear /x̪/ sound. Even she, sometimes, came to me and said: /h...h...næ – x̪/ meaning ["not the /h/ sound for /x/ , but it should be /x̪/"].

At this stage, she was also producing many new sentences. In a single day she produced so many new sentences that, by no means was I able to jot all of them down. Only in a two-hour production of hers, you could easily see how completely the sentences were produced, how properly the pronouns were used and how better and smoother the sounds were uttered. And this was all done through her own self-expansion, that is, she did it all without having much conversation in the environment or without being asked to produce anything!

At this stage she was using the central sound of /y/ for both /r/ and /l/ sounds. More signs of negation were seen and she started to develop the /s̪/ sound to /x̪/ or even to /x/ not only for initial /x/ but also for the /x/ sound in mid-positions.

An important point to mention here is her odd self-correction which is quite rule-governed. Now that she has developed /s̪/ to /x/ in initial and even mid-positions, she imagines that her productions that started with /h/ sound were incorrect and she is changing them to /x/ e.g. /dæxæn/ for /dæhæn/ meaning "mouth", /xal/ for /hal/ meaning "hall", /xæyat/ for /hæyat/ meaning "yard".

Self-correction is applied because she has learned that when she used to produce /h/ for both /h/ and /x/, she had no problem for producing /h/ and now that she has learned to produce the /x/ sound, this was not a real /x/, and now that she has got the real /x/ sound, her real /h/ sounds must be changed to /x/ as well! So she imagines that all her real /h/ sounds previously produced were not properly produced and she is making a rule-governed self-correction. But this did not last for more than 10 or 15 days. Discovering the distinction, she changed them to the real pronunciation of the real sounds.

Psychological Awareness

Children are psychologically aware of their errors. That is, while they mispronounce words, they know the adults pronounce the same words differently. This was proved right with my subject as well. In order to prevent the penetration of light from the upper part of the door of my study-room, I had covered that upper part of the door with a black plastic sheet. One day she walked into my study-room. Looking at the black plastic sheet, she asked:

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

/baba ʂ̥æte/−?− I didn't understand her!

I said: /særde/ meaning "is it cold?"

She said: /næ næ ʂ̥æte/ −?− I didn't catch her!

I said: /čæsbe/ meaning "is it glue?"

She said: /næ næ ʂ̥æte/ −?− I didn't understand her!

I said: /čæsbide/ meaning "has it stuck?"

This time, while she was a bit angry, she almost screamed: /næ næ ʂ̥æte/ and suddenly I discovered what she was asking me:

I said: /čætre/ meaning "is it the umbrella?"

She happily said: /aye aye ʂ̥æte/ for /are are čætre/ meaning "yes, yes, is it the umbrella?"

She produced the same utterance, i.e. /ʂ̥æte/, more than three times, and I gave her three or four different responses, yet she was psychologically aware of the correct pronunciation of the word /čætr/ meaning "umbrella". She didn't take any of the responses but the correct one. Besides her psychological awareness of the correct pronunciation of the adults' productions, other important factors are worth mentioning, factors that clearly show her cognitive development; through her cognition of the environment she compares the black plastic sheet, its size and shape with the shape and color of an umbrella. Although she could name many of the colors, she was not able to recognize them properly. She would easily say red, white, green, blue and so forth, but when you wanted her to tell you the color of white shoes, she might have told you they were red!

Creativity Vs. Imitation

/to mamane mæni mæn doʂ̥(x̥)æye toyæm/ meaning "you are my Mummy, I am your daughter".

Early one morning, when she woke up, she addressed her mother and produced the above structure. This had never been produced by anyone in her environment. This proves her language creativity and rejects the theory of imitation. She had never heard such a structure being produced by anyone in our home, and this was a novel sentence produced through her own discovery and creativity. This may also prove her mental progress; another day she was in her room but I could not see her. I called: /færnuš čɛ̂ kar mikoni/ meaning "Farnoosh, what are you doing?" she called back: /dayæm ʂ̥ek mikoyæm/ for /daræm fekr mikonæm/ meaning "I am thinking"!

I was shocked: "what are you thinking about?" I asked. She said: /nemiduyæm/ for /nemidunæm/ meaning "I don't know". Was she really thinking? Did she know what thinking meant at all?! Did she know that she was thinking? or she was just producing an imitated form of adults' productions. I am quite dubious whether she had ever been exposed to such a situation or even to structures somehow similar. Did she know the meaning of the word "thinking"?!

By the end of stage four, she was gradually moving towards categorical structures which are the main characteristics of stage five. Very many new structures were produced. They were so many that one could not keep a good record in order to describe their multi-folded aspects. At this stage she produced about 515 new words and word combinations.

Stage Five: "Early Adult-like Production Period" (30-34 months)

At this stage, the child's speech is getting more categorical. Linguists compare the grammatical criteria in adult language with grammatical criteria in child language. The two main kinds of these are:

1. morphological = production of more words.
2. syntactic = combining words to make clauses, phrases, and sentences.

In this case study, the last stage was only about four months−between 30 and 34 months of age. In this stage the subject produced many new words on the one hand, and gave better pronunciation to her old productions on the other hand. Of course, it is very difficult to draw a clear-cutline between the two stages and ignore the matter of overlaping between any of the two successive age levels.

The undeniable overflow of new structures, that

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

strongly prove phonomorphosyntactic and cognitive development, makes it impossible to have an overall control over many aspects of language acquisition processes; in other words, the new points, and changes in old ones are so many that one feels quite miserable to check and jot them down and give adequate description to all those many events taking place only in a single day. The following case clearly proves the above claim:

One day, quite accidentally, she hit me in the eyes. I was badly hurt. I took off my glasses and put my hands on my eyes. Having seen me in pain, she felt quite depressed and produced the following long sentence:

/dæydet ūmæd ... bebæyæmet bimāyestan .../ turning to her mother, she told her: /maman češe baba dæyd umæd bebæyeš bimayestan/ turning back to me, she asked: /či ̂šod ... fæyda mibæyæmet bimayestan/ meaning "are you hurt? shall I take you to hospital?" (turning to her mother) "Mummy, the father's eye is hurt, take him to hospital" (turning back to me) "what happened? tomorrow, I will take you to hospital."

At this stage of early adult-like production period, she is producing the above non-stop long structure that reveals the following important points:

1. no one is asking or persuading her to produce such a complete, meaningful, and related long structure; in other words, her production is out of her own language creativity and mental preparation.

2. her phonological development is to the extent which she is producing all the words perfectly, except for her childish intonation and producing the /y/ sound for /r/ e.g. /dæydet ūmæd/ for /dærdet ūmæd/.

3. grammatically speaking, she is using the pronouns and possessive cases quite properly and the way the adults use them. e.g. asking me: /dæydet ūmæd/ meaning "are you hurt?" telling her mother: /češe baba dæyd umæd/ meaning "the father's eye is hurt".

4. the proper use of question form structures such as "are you hurt?" – "shall I take you to hospital?" – "what happened to you?"

5. the proper use of verbs and tenses such as /bebǣyæmet/ meaning "shall I take you?" /bebæyeš/ meaning "take him". /či ̂šod/ meaning "what happened?"

6. the cognitive development of the subject is also noticeable. She, very well, knows the concept of pain when she says "are you hurt?" She knows she should ask her mother for help ("take her to hospital"). She also knows that hospital is a place for treatment and that the patient should be taken there ("I'll take you to hospital").

Another example of the sort also proves her phonomorphosyntatic and cognitive development; to answer a simple question of "do you like me?", she produced: /toyo dus dayæm/ meaning "I love/ like you."

/maman dus dayæmy/ meaning "I love/like Mummy."

And she went on with all the members of the family, all the persons and things around her, many other persons and things in her mind except for the following two creatures: /piši dus nædayæm/ meaning "I don't like the cat." /aqa yuba dus nædayæm/ meaning "I don't like Mr. Fox (the fox)."

This shows her language development and the negation specifically proves her cognitive development; she loves all persons and things she knows but the cat and fox she hates!

As I have mentioned, the developmental processes were taking place so vastly and rapidly, especially within the last month, i.e. 34 months of age, that no one, by no means, was able to analyze more than just little portions of the whole. By the end of 34 months of age she had produced 341 new words and word combinations. Up to this age she could not produce the /r/ sound yet; she still produced /l/ for it. She did not recognize the colors yet, though she could produce the name of many colors such as: red, blue, black, yellow, orange and so on. By the end of this research study she had produced about 1125 new words and word combinations (20–25 words for stage 2, 212 words and word combinations for stage 3, 552 for stage 4, and finally 341 for stage 5 which was only for four months in my study).

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

Conclusion

Simply having the evidence presented to you is not enough for learning (language) ... We must discover what is necessary to get the system to function (Chomsky, 1988).

So many linguists and psychologists are interested in the study of first language acquisition. They actually examine what children learn, and how they learn it; in other words, they attempt to gain additional insights into the nature of language itself—not only the E-language but also the I-language.

I observed and tape-recorded my own child's productions for 27 months—from 7–34 months of age. I have reported the processes of her language development at different stages.

As all other normal children, she had her acquisition "capacity" . Having her constant input she actively acquired the language by working out the regularities in what she constantly heard and gradually applied them in what she said, and also gradually became aware of what she said. But the matter is not so simple. When you try to discover what a child knows, you are facing a highly complex problem, and the kind of knowledge which is involved is quite implicit, because the knowledge is unconciously acquired by the child without any sort of direct teaching, and it will make it more complex.

What she has learned of her language may not be discovered from her speech; she seemed to understand utterances before she could produce such utterances whenever she needed to produce them. In short, her perception was always far ahead of her production.

As I have already explained, she, quite naturally, went through all different five stages of language acquisition similar to what has been reported in many of the world languages. Her developmental processes, compared with the results of other research studies conducted in other languages, strongly proved the theories of language universals.

It seems to me that some of the sounds she produced in her cooing/babbling stage, such as [θ], [tu^{h}], [x], either completely ceased to be produced in later stages, or did not appear until she was producing many meaningful words. We may conclude that the babbling productions are not directly related to language acquisition, because when the child learns to produce meaningful words only a limited number of those many sounds she used to produce are used in her word productions. For example, she clearly produced the /x/ sound in her babbling period, then we did not hear it until she was 27 months old. She used to produce the [s] sound for it during this long period of time.

When she was only 34 months old, she had produced about 1125 words and word combinations as shown below:

Age level in months	number of words and word combinations produced
0-24	232
24-30	552
30-34	341
	Total No = 1125

And this was the time when even the visitors admitted that our little child was really able to talk!

Implications

The results obtained from the study of first language acquisition are vastly used by teachers, linguists, psychologists, psycholinguists, speech-therapists, psychiatrists and even physicians, all of whom want to know whether a particular child in his/her special environment is making a normal development in acquiring her native language.

But many investigators are trying to use the results of the study of first language acquisition more efficiently in teaching a second language. They want to see how a second language is best learned. Then, the distinction between acquisition and learning is argued.

When we use the term acquisition for a language, we actually refer to a gradual development which is mainly done unconciously; whereas, learning is done quite consciously, a conscious process of gaining the knowledge of grammatical rules, structures, and vocabulary of a language. The more we try to create

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

natural situations–like those existing in home-environment of a child acquiring her native language – the better can we teach a second language to a learner.

Suggestions

On the acquisition of different languages, one can find a long list of books, journals, articles and term papers. They have disscussed different aspects of the developmetnal processes of many of the world languages such as, English, French, Russian, German, Italian, Japanese, Chinese, Spanish, Hebrew, Polish, Turkish, Arabic, Kaluli, Soma, Romance with special reference to French, Hungarian, and many other languages. But, unfortunately, not much is done on the acquisition of Farsi.

Possibly the present work has provided a contribution–though so minor–to the knowledge. If I have called my job so minor, it is because of the greatness, complexity and multidisciplinary aspects of the language acquisition. This significant greatness of the problem will cause any related individually conducted research to suffer a lot.

I strongly suggest a team-work. A team of knowledgeable and enthusiastic researchers well-equiped with tape-recorders, video sets and other necessary instruments should precisely study the language growth of a group of children from birth up to, at least, three years of age. This will possibly help to discover some major points on the acquisition of the Farsi language. This will also give us a chance to make comparisons between Farsi and other known languages being studied.

Notice

Appendices "A and A Cont." (the "Final Table") present phonological development of the subject from 7 to 34 months of age. Appendix "B" is the out-line of the subject's 27-month productions for the five different stages of her language development.

Signs and symbols used

3. A « ◦ » below marks farther backward articulation
4. A « ˆ » below marks farther forward articulation
5. A raised « ˜ » marks quite farther backward articulation
6. [ɗ] (ingressive sound) dental/alveolar implosive
7. ／ rising intonation
8. ＼ falling intonation
9. ∧ rising-falling intonation

[DOR: 20.1001.1.25382640.2002.9.2.3.5]

Appendix A. The "Final Table" presenting subject's phonological development stauts from 7 to 34 months of age:

1		2		3		4		5		6		7		8		9		10		11		12		13	
7–8		8–9		9–10		10–11		11–12		12–13		13–14		14–15		15–16		16–17		17–18		18–19		19–20	
V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C
/e/	/d/	---	*[ρ]	/i:/	/¢/	---	/ʔ/	/u:/	---	[ɛ]	[j̥̆]	[ʊ]	/w/	---	[y]	---	[s̪]	---	[s̪]	---	[s̪]	---	---	---	[s̪]
/u/	/t/				/k/		~~[x]~~	/a/		/a/	[z̪]	/a/					maybe		~~[s̪]~~		surely				
	/x/				/g/			maybe				surely													
/æ/	/ɦ/																								
[u^{h}]	/m/				*//β/																				
	/n/																								
/ə/	/θ/																								
/o/	/p/																								
	/b/																								
	/ɱ/																								

Appendix A Cont.

14		15		16		17		18		19		20		21		22		23		24		25		26		27	
20–21		21–22		22–23		23–24		24–25		25–26		26–27		27–28		28–29		29–30		30–31		31–32		32–33		33–34	
V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C	V	C
---	[z̥] surely	---	[s] [s̃] [dᵗ] [ɗ]	---	[š] maybe [s̃] [s̃]	[o]	[z̥] [x̂] [š̥] surely	---	---	---	---	---	/x/ /š/ maybe	---	/f/ /š/ surely [s̃] [s̃] [s̃]	---	/q/ [θ] ↓ heard for ↓ /s̪/ ↓ /s/	---	/č/ [t͡s]	---	/ǰ/ [t͡s̃] /l/ /y/ ↓ for ↓ /l/	---	---	---	/z/ [ŋ] [z̥] /l/ ↓ for ↓ /r/	---	---

1. v = vowel
2. c = consonant
3. A « • » below marks voicelessness
4. A « ◦ » below marks farther backward articulation
5. A raised « ˜ » marks quite farther backward articulation
6. A « ˆ » below marks farther forward articulation

*[ɗ] = (ingressive sound) dental/alveolar implosive

/// = vanished

// = produced only a few times

*[ρ] = bilabial fricative voiceless

*[β] = bilabial fricative voiced

*[¢] = affricated alveolar

Appendix B. The outline of the subject's 27-month productions divided up into Five stages

Stage 1 → 7–12 months old
(5 months) **Prelinguistic Period**

A) 0–8 weeks
1. reflexive crying (crying and fussing)
2. vegetative sounds (burping, swallowing, spitting up)

B) 8-20 weeks
Cooing, babbling and laughter

C) 16–30 weeks
Sound segments
are longer than in cooing stage

D) 30–50 weeks = 7–12 months old
in my case. vowels, consonants, sound combinations, and a few words

Stage 2 → 12–18 months old
(6 months) **Single-Word Production Period**
Pointing to my shoe → /bəbə/ for /baba/ "Holophrastic"
about 20 words are produced

Stage 3 → 18–24 months old
(6 months) **Early Multi-word Production Period**
/mæm dæææ/ for /maman ræft/ "Telegraphic"
about 212 new words and word combinations are produced

Stage 4 → 24–30 months old
(6 months) **Later Multi-word Production Period**
/dæs̱ mi̱šuye/ for /dæs mišure/ "Phrases, Clauses, and Sentences"
about 552 new words and word combinations are produced

Stage 5 → 30–34 months old
(4 months) **Early Adult-like Production Period**
she accidentally hit me in my eye, then said :/či s̱od, dæydet umæd bebæyæmet bimayestan.../for /či s̱od, dærdet umæd bebæræmet bimarestan.../ "More developed sentences"
about 341 new words and word combinations are produced

1125 = total words and word combinations in 27 months

References

Aitchison, J. (1976). The Articulate Mammal. London: Hutchinson.

Anderson, J. (1983). Syllable simplification in the speech of second language learners. Interlanguage Bulletin.

Brown, H. D. (1984). (3rd ed). Principles of language learning and teaching, Englewood Cliffs, KIJ: Prentice-Hall.

Brown, R. (1973). A first language: the early stages. Cambridge, MA: Harvard University Press.

Carroll, J. B. (1953a). The study of Language. Cambridge, Mass: Harvard University Press.

Carroll, J. B. (1953b). Language and thought. Englewood Cliffs. N. J: Prentice-Hall.

Chastain, K. (1988). (3rd ed). Developing second language skills. Hardcourt Brace Jovanovich. Inc.

Chomsky, N. (1972). Language and mind, (2nd enlarged ed). New York: Harcourt Brace.

Chomsky, N. (2000). New Horizons in the Study of Language and Mind. Cambridge University Perss.

Chomsky, N. (1984). Changing Perspectives on Knowledge and use of language. M.I.T.

Clark, H. H. and Clark, E. V. (1977). Psychology and language: An introduction to psycholinguistics. New York: Harcourt Brace Jovanovich.

Cook, V. J. (1985). Universal grammar and second language learning. Journal of Applied Linguistics.

Cooper, D. E. (1973). Philosophy and the nature of language. London: Longman.

Cruse, D. A. (2000). Meaning in language: An introduction to Semantics and Pragmatics.

Gardener, R. and Lambert, W. (1972). Attitudes and motivation in second language learning. Rowley, MA: Newbury Press.

Gee, J. P. (1999). An introduction to discourse analysis, theory and method. London and New York: Routledge.

Goodluck, H. (1991). Language acquisition: A linguistic introduction. Oxford: Blackwell.

Krashen, S. (1981). Second language acquisition and second language learning. Oxford: Pergamon Press.

---------- (1982). Principles and practices of second language acquisition. Oxford: Pergamon Press.

---------- (1989). Language acquisition and second language education. Prentice Hall International.

---------- (1985). The Input hypothesis: Issues and implications. Harlow: Longman.

Lee, Kang (Ed.) (2000). Childhood cognitive development: The essential reading. Malden, Massachusetts: Blackwell publishers.

Richards J. C. amd Rogers T. C. (1986). Approaches and methods in language teaching. Cambridge University Press.

Torfing, Jacob (1999). New theories of discourse. Oxford, Blackwell publishers.

Trask, R. L. (1999). Language: The Basics (2nd ed). Padstow, Cornwall: Solidus (Bristol) Limited.

Widdowson, H. G. (1992). Teaching language as communication. Oxford: University Press.

[DOR: 20.1001.1.25382640.2002.9.2.3.5]