CHILD’S ACQUISITION OF SYNTACTIC STRUCTURE IN MAGAHI

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Abstract
This paper attempts to study the process of acquisition of syntactic structure by a child. It studies the subsequent progress and different stages of development of syntactic structure in the language acquisition by children. It studies different theories like Chomsky’s Innatist Model of Language Acquisition, Steven Pinker’s proposition on grammatical category, Constructionist Model of Language, Semantic Assimilation Theory and describes their proposition about language acquisition. On the basis of above stated theory and other developments done in this field, some fundamental questions regarding children acquisition of syntactic structure has been dealt. These questions will help to understand the language acquisition process and how these theories explain them. The process of children acquisition of syntactic structure has been analyzed with the help of some primary data and the subsequent development of syntactic structure during children language acquisition has been shown. It has been shown how findings observed through analysis of data follow different propositions of the theories.

Keywords - Language acquisition, Syntax, Syntactic Structure

Introduction

How do the knowledge of sentence structure/grammar of any language is acquired by children? According to Chomsky, a child is born with an innately equipped language module known as Universal Grammar. Following Chomsky, Steven Pinker posits a priori grammatical categories, such as verbs and nouns, in his proposals for semantic bootstrapping and linking rules. Chomsky’s model is called Innatist Model of language acquisition. Chomsky argued against Skinner’s claim that language is ‘verbal behavior’. According to him knowledge of language cannot be learned through experience alone but is guided by a genetic component. Universal Grammar is comprised of abstract linguistic knowledge and a system unique to language.

An another school of thought known as Constructionist Model of Language rejects the existence of concerned language constituent. It suggests that communication and interaction helps in the learning of sentence structure. It is also known by ‘Use based model’ which states that children’s earliest productions are rote learned phrases lacking internal structure.

An another model called as Semantic Assimilation Theory states that earlier sentence production of children consist primarily of words which belong in the adult language to lexical categories such as noun, verb, and adjective. Steven Pinker has also rested on the child’s first use of semantic information to enable him to „bootstrap“ into the syntax.
Universal Grammar assumes that children have inborn potential to represent structures by using the same categories and phrase structure as used by adults, none has to be learned. In this sense, there is what is known as ‘continuity’ between the child and adult grammars while the usage-based approach does not assume continuity between child and adult constructions and the Semantic model emphasizes the frequent use of lexical words in the early language of the child.

Problems

- If the capacity of syntax is what the human is born with, then do children have syntax?
- If syntax is learned by mere exposure to input, why do then children commit errors and produce those structures which are not present in their input?
- If children use only lexical words like nouns, verbs and adjectives in their early speech, then what can be the possible reasons?
- What can be the reasons why children omit grammatical morphemes in their early syntactic structures?
- Does one word stage display any syntactic evidence?
- Does two-word stage display any syntactic evidence?
- Does the Telegraphic stage show any syntactic evidence?

Answers –

The first question can be addressed by the Innatist Theory and the continuity hypothesis. The main idea is that there is no real qualitative difference between the syntax that an adult and a child can speak. On the theory of Universal Grammar, children are language ready at birth. The representations for the phrases and sentences that children build and that an adult builds are similar but not identical hierarchical structures. Inflection is missing in the speech of the child while it is there in the speech of the adult. The Innatists believe that children have all the syntactic structures in the brain right from the birth but they cannot express them in performance initially.

The second question can be answered by Generative framework which stresses on the creativity of language. This is known as poverty of stimulus in syntax according to which the linguistic output is far greater than the linguistic input. Then again it seems that children have innate language faculty which enables them to create novel utterances based on limited set of data.

The third question can be answered by Semantic Assimilation Theory (Schlesinger. 1988). It believes that there are no innate structures. Initially there are only semantic categories of words in the verbal repertoire of children. These semantic categories give rise to syntactic ones. For the children only semantic elements like agent, patient, recipient and others matter. This conclusion is favoured by my own data where Anu used to say only “Pappa ghare jai” meaning “my father goes to house”. She was omitting tense morpheme, person morpheme, and determiner phrase.

The fourth question can be addressed by both Innatists and Constructionists both. Innatists believe that kids work with the same grammar tools that adults use but the only thing is that kids haven’t yet learnt to use all the tools so they often miss the grammatical morphemes.

D. Steinberg also touches the issues and he answers the question in terms of meaningfulness of the referent. According to him Open class of words are meaningful by their own whereas the bound morphemes like inflection, determiners etc. can only be meaningful in word combinations. This is the reason why children start acquiring lexical morphemes before the acquisition of grammatical morphemes.

The answer to the fifth question is generally given in the negative by many psycholinguists. At the one word stage the whole sentence is crunched down into single word. It is indeed hard to tell when we get only one word at a time. May be that we can get some evidence from experiments looking at how they interpret sentences. For example, in one of the studies kids (16-18 month old) were shown two
videos about a brother and a sister Mickey and Sarah. In one video Mickey is pushing Sarah and in another Sarah is pushing Mickey. Then a voice says “look Sarah is pushing Mickey”. Find Sarah pushing Mickey. The experiment shows that children find the video that matches the sentence more quickly and longer than the non-matching one. This also shows that they must have some sense of syntax even at one word stage. Similarly I also found similar phenomenon from Pihu ([1.3 month old). I had two toys put before her. One was a motor car and the other was an Elephant. When I said “Pihu, hathi wala khillaona dekh”. She looked at the elephant toy. She was able to respond to my command with “Ma-Ma”.

Answer to the sixth question: Interestingly the child puts two words together like

Nouns, Verbs and Adjectives. In English phrases like “Skate pretty”, “Doggie

Bath”. (Taken from Lectures of Moti Leberman, Ling Space) and in Magahi phrases like “Baba nimman” [Grandpa is nice], “Papa kha” [papa is eating]- taken from my own data collection from Rohit [1;11month old].

But how much can we tell about what kind of syntax kids have just from these words? After all, the same combinations can be used for a lot of different meanings. “Papa Kha” can mean – papa is eating or it can mean – the child is requesting papa to feed itself. Over the years there have been a number of different proposals for what is going on at this stage. There is Continuity Hypothesis. Under Weak continuity hypothesis, kids are missing syntactic categories like tense, complementizer, and determiner earlier but with growing cognitive maturation and more exposure to inputs they acquire them too. Kids only play with nouns, verbs and adjectives because the rest of the grammar doesn’t actually exist in their mental playbooks.

Another possibility is that they do have everything; the entire periphery of syntactic choices but they just can’t use them properly yet. This is known as Strong Continuity Hypothesis.

The last question seems to be very interesting. Telegraphic stage contains longer and most complex sentences but they don’t sound quite natural. Instead kids at this stage produce sentences like “Ham nimman larki” [I am a good girl] where the auxiliary is missing. We see much more words coming out but they are in an elliptic fashion like old telegraph without any grammatical morpheme. So Anu in my example was missing Tense and Person marker.

Points –

1. Children start at holophrastic stage where one word is their whole sentence.
2. Then they get to a two-word-stage and telegraphic stage as they expand how many words they can get out.
3. At each stage we can find evidence of continuity with how adults use syntax.

Subjects / Data

Subject 1. Tannu
[2:6years old]
Gender-female
Birthplace: Jehanabad, Bihar.

Data :

Ham ghar-e [I]
ja [to house]
[go]
I go to house.
Papa cheej kharid
[My father] [chocholate] [buy]
Papa is buying chocholate.
Mammy dudhu [To Mother] [milk] I drink milk,
Mother.
pee
[drink]
Bilai
[The cat]
The cat went.
bhag
[go]

Kutta bhaunk
[The dog] [bark]

The dog is barking.

Ham Pani Pee
[I] [water] [drink] I drink water.

There is a continuous pattern found in the speech of the baby. She is using open class of words frequently and goes on missing close class of words like determiners and inflections. But from these data it’s quite obvious that Tannu has the knowledge of syntactic structures. She knows the fact that Magahi is an SOV language so there is no example where she violates the schema. Why does she not use inflectional marker in her speech is something which different models explain in their own way. The Constructionist will say that the child has not yet learnt to use the inflectional morpheme where as the Maturational theory will say that at a biological determined time the child will start using those morphemes. The Semantic theory will emphasize the semantic content words that the child is using in her speech and will conclude that the child is prioritizing meaning over syntax. Innatists will argue that everything is there in the child’s internal lexicon but the child is not yet expressing them because it doesn’t have need of them right now so the child plays only with nouns and verbs and adjectives.

Subject 2: Luddu [3:5 years]
Gender- male
Birthplace: Jehanabad, Bihar.

Data:
Ham khana khab- ai.
[I] [food] [eat+ person and tense marker]
I shall eat food.

Tu huan na jai-he.
[You] [there] [neg] [go+person marker]
[You] Don’t go there.

U hamra Marlak hai
[He] [me-dative] [beat+perfective aspect] [Tense Marker]
He beat me.

U chhaura khachchar hai
[That] [boy] [naughty] [auxiliary „be”+tense marker]
That boy is wicked.

Hamhu tohra –sath khel- bau
[I also] [you-dative+with] [play] [future tense marker]
I shall also play with you.

Ego admi aayel- rahlai hai
[Det-a] [man] [come+perfective aspect] [Tense marker]
There was a man, arrived here.

This data shows that Laddu has learnt most of the syntax so his speech has similarity with the adult one. His speech was quite fluent and well formed. But he had some difficulties in producing complex sentences which were relativized. The constructionist theory will explain that the child’s speech is fluent and well-formed because he has now enough exposure to the adult language. The Maturational theory will say that the child has matured in terms of his cognitive development. The Universal Grammar will say that all the structures were there in the mind and the only milestone is that now the child is able to express them in speech. Brown’s Mean Length of Utterance [MLU] will explain it in the way that the child has reached the stage 4-5 and so his speech contains imperatives, negatives plurals and others.

SUBJECT 3:
Prem
Gender: Male
Age: 4years
Birthplace: Jehanabad, Bihar.
DATA

Interviewer: Kon Jaichh-ai?
[Who goes []]
Prem: Baiya.

[Brother]
Interviewer: Kathi holau?
[What happened?]
Prem: Dukha delak ghao.
[My sore has been pinched]
Interviewer: Kon dukhalau?
[Who pinched?]
Prem: Tu.
[You].
Prem: U ulta rakh-lai.
[That is kept in a wrong way]
Interviewer: Kathi?
[What?]  
Prem: Bhagban bala.
[Something containing God’s pic] Interviewer: 
Bhagban bala kathi?
[What”s that containing God’s pic?]
Prem: Kibat. [For kitab, here a metathesis was seen in his speech]
Prem: Ego Sankar Bhagban [One pic of Lord Shiva]  
Ego Sarsatti [One pic of Goddess Saraswati]

Children around four years speak syntactically well formed sentences — that is supported by the data in an obvious manner. Prem’s speech was characteristically well formed. He was using complex sentences where movement has occurred for various reasons like focus and stress e.g. “U dukha delak ghao”. This is not the basic word order in Magahi. Magahi is basically SOV while the above sentence shows the surface order SVO. He is moving the Main Verb over the object. So I can say that the child is quite aware of the Syntactic operation: Move; he is using it for semantic reasons of stress and focus.

Again we see that the child is using Grammatical category of words like the indefinite determiner Ego [English equivalent to ‘a’].

It was unexpectedly found that the child was missing some lexical items in his speech: Bhagban bala []. The square bracket shows the missing item. Then a question arose in my mind —why is the child doing so? After much thinking I found that there is no native word in Magahi for [picture]. Speakers use Photo, borrowed from English. The child was not using the non-native vocabulary at this stage. However, from Syntactic Point of view the sentence was acceptable with a [].

SUBJECT 4: Nisha

Gender: Female
Age: 5 years
Birthplace: Jehanabad, Bihar

DATA

Interviewer: Hammar guiya la [Give me my doll.]
Nisha: Na, guiya ham labai [No, I will take the doll.]
Phone kahe kat debai-the?
[Why do you disconnect the phone?]
...Han ta mobile phek de aur dosra mobile kharid le.
[Either you throw your phone or buy another phone]

Nisha has crossed five years so she uses compound and complex sentences which match the adult’s sentences. She has mastered the structures of Magahi completely. The Maturational theory will assert that the child has developed the full syntactic structures as a predetermined schedule. The Behaviourists will assert that the child has learnt the structures from the linguistic environment through imitation and there is nothing innate because the mind is like a tabula rasa. While Chomskyan tradition of Innatism will hold the view that all these structures were there in the mind of the child so the competence or I-language is what the child is born with. So the production is only a matter of performance.
Result

Tannu’s speech mainly consisted of lexical words. She manages to miss inflections and determiners as discussed above. The results show the evidence that the kid has a lot of syntax. She is just prioritizing meaning over function. For example when kids manage to use to these functional words, they use them right. They produce determiners in their right place. Tannu used to say “Papa khaila kha” but not the other way around “kha khaila papa”. Although both the forms are grammatically correct but the difference is that the former one is a basic sentence and later one is a complex sentence where the syntactic operation „Move Alpha” has applied. So in speech production we never find kids making mistakes but only see them leaving the function words out. So I can say that children of tender age like Tannu have some sorts of syntactic knowledge but just they are not good at processing this furious flow of speech.

In the second data set Luddu’s one, the continuity between adult and child speech is quite noticeable. He uses the function words quite lucidly and his speech looks quite natural. So here I find that not only UG but also biological determined time plays an important role in the acquisition of Syntax.

Observation / Discussion

Combination of words starts appearing from the second year. At an early age of 14 months novel combination appears in an irregular frequency. At 18 months, most of parents say that their child is often combining words. Almost all children starts combining words by the age of 25 months. According to several research and studies conducted on children states that children omitting some elements of grammar in their speech on a continuous basis, yet hope to find presence of these elements in the inputs being received from the surroundings.

Children rely on very limited sets of verbs even though other candidate verbs exist in their vocabulary for example verbs like “kha”, “de” and so on before three years of age. After 3 years of age, children move away from their reliance on the limited set of verbs in the main clause, and add other verbs to their verbal repertoire. This shift demonstrates increased productivity for this construction because now lexical morphemes as well as grammatical ones are found in their speech.

These results suggest that children learn the main clause in this construction as a single unit at the earlier stage. They slowly break down this consolidated united into simpler and smaller one as there is improvement in their language acquisition. They are able to apply other verbs to the sentence formation, notably the auxiliary verbs, in addition to the main verbs by the age of three years. This progression demonstrates a slow move toward the full competence characterized by adult grammar, a competence that shows the capacity to substitute constituents within larger clauses. My discoveries were according to Brown’s theory of Morpheme Acquisition where morphemes are acquired in a certain order: Progressive, Plural, Articles, Present tense, Modal auxiliaries, Infinitive, Inverted copula, uninverted auxiliary, uninverted copula and Past tense.

My conclusion also match with what Steinberg means by Meaningfulness of the referent so first lexical words are acquired because they don’t depend upon other morphemes for their meaning, and only later the grammatical morphemes are acquisition.

Critical Analysis

According to Noam Chomsky, children are inborn with the ability of learning any language irrespective of the social class and hierarchy. Chomsky states that some of the language features used by children are very perfect that it must already be imprinted in the brain of the child. According to him, possession of language Acquisition Device by the child helps to encode the major concepts of the language and syntax of the language in the mind of the child. Children have then only to memorize new words and apply the syntactic structures from the language acquisition device to form sentences while there are Behaviorists and Semantic Assimilation theorists who believe that there are no innate structures and children acquire them only through exposure to input. But a more perfect theory won’t follow these extremes. According to my assumption,
there are some basic syntactic structures which are inherent while there are others which have to be memorized only later on through more exposure to language.

We can also estimate Jean Aitchinson’s idea that “language has a biologically organized schedule”. She has placed both innate factors and environmental inputs in her theory of syntax acquisition. One of the vital factors is the individual differences that every child has some idiosyncratic properties so all of them will differ in the acquisition of syntax. Some speech-delayed children will produce syntactically constructed sentences only later on in their life.

Our theory of Syntactic acquisition get fulfilled when all the three are consolidated: UG which supposes that children have inborn knowledge of the computational system and syntactic categories, and universal principles and parameters; the usage-based constructivist theory presumes that child has no specially designed knowledge of language or syntax, and must learn this, on the basis of positive input alone. This is a steady process, because children must moderately build up knowledge of the constructions permitted in the language and Aitchinson’s biologically scheduled time which asserts that syntax will come to child’s lexicon at a biologically determined time.

Conclusion

Conclusively I can state that some basic syntax is innate in children in the form of I-Language while more intricate structures have to be memorized through exposure to comprehensible inputs only. Children’s initial syntax is the synergy of semantics and syntax, starting from the lexical selection from the Lexicon and only later on they are fitted to syntactic slots available in the computational system. In this instance Brown’s theory of Morpheme Acquisition and Steinberg’s hypothesis of the Meaningfulness of the referent are also significant that sums to the assumption that early syntax has semantic basis. The Nature vs. Nurture controversy can be rectified by the mixed assumption that some syntax is innate while others are acquired.

The challenge is to indicate how children do develop the local language without over-generating and producing sentences that are not part of the adult grammar. Even the exponents of the constructivist language acquisition research program had been struggling with this problem. It is at this point that Innatists get the upper hand. Even then, the debate continues over whether child language acquisition is all nurture or in part, a gift from nature.

References

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