

How Children learn Language

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How Children Learn Their Language

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Abstract

This document is a summary of the prescribed data of Fromkin Chapter 5. The document deals with How Children learn language through proposed theories like Principles and Parameters. It deals with various theories suggested by Chomsky and follows the gradual approach to reach the theories, with various examples and analogies to connect them with real-life conditions. The Document has various subsections, Recap deals with previous theories suggested by Chomsky, while other parts of the document deal with the new and advanced, accepted theories suggested by him.

1 Recap

Earlier Chomsky assumed that Language is not an innate quality of Human beings. They need to acquire Language throughout their lifetime, in which a major part is acquired by the children. He also proposed two level structures D-level structure and S-level Structure. But It was not enough so he advanced his theories to come upon the new P and P theory, which we later discuss in this report.

Chomsky realized that there are certain ¹restrictions on grammar, which he assumed children are naturally aware of. There were certain deep rules which transformed the language.

As an Example-

He has committed the crime.
Which Crime has he committed?

King knows who has committed the crime.
*Which Crime King knows who has committed?

Similarly in hindi,

Ram ne Khana Khaya.
Koun sa Khana Ram ne Khaya.

Usne dekha ki kisne khana khaya.
*Koun sa khana usne dekha Ram ne khaya.

It is impossible to bring a crime phrase or Khana phrase in front so we can say that there are "some general principle of language that determines which phrases can be questioned and which phrases can't be." -Chomsky
There can be many more examples from our day-to-day life, where we struggle to make the question, because it sounds unnatural to us, even if it is grammatically correct. Especially, In Foreign/Second Language,

As Chomsky proposed, in later sections, switches are set according to exposure. Being an Acquired language, It is difficult to toggle switches. (Fromkin chapter 5)

Example-

*Colorless green Idea sleeps furiously.

For Non-English Users,
The presence of Did in Interrogative sentences feels awkward.

*Did Ram eat apple?
Did Ram ate apple?

Second one feels more natural, but first is grammatically correct.

(*=Sound Unnatural)

2 Setting Switches

As an Analogy, Chomsky proposed a situation of North and South Hemisphere.

Analogy-

(from Fromkin chapter 5, page 107)

Suppose There are two Children living in different hemispheres, know there are two hemispheres, North and South Hemisphere and know about those hemispheres like Climate and Sun position, Crops, Culture, etc.

If We provide them with tools to verify their hemisphere, To verify their hemisphere, They just need to observe the swirling of water in the drain. Since they are already pre-wired with the information of Hemispheres, When they are exposed to observing swirling water, they can easily connect the information and

can comment about their hemisphere, about the climate, Sun Position, Crops, and Culture. They can even predict about the other Hemisphere too.

A child in the North can say that they have a colder climate and going towards the South makes the climate hotter. They have Pine trees with Pointy Crowns but the South will have a comparatively, non-pointy crown of trees.

Similarly, Children in the South can say that they have a hotter climate with non-pointy trees, with the sun positioned closer than the north one.

With a Similar analogy, Chomsky claimed that Children have prior knowledge of available possible options that they can take like using different head-words and different modifiers and their relative positions which we will discuss later, and when they are exposed to language they quickly grasp it, that means they grasp the relative position of Head and Modifier. The Exposure to Language acts as a Trigger, which decides the toggling of a switch.

¹ 3 Logical problem of Language acquisition:

Learnability of Language-

How do Children learn language from discrete minimal information?

It was a topic of debate that how children learn language from such small data sources. Children till age 2, might have encountered a very limited number of words with meaning.

How they can parse the advanced speech-to-language source to acquire language? It seems quite unacceptable. It is like giving an amateur, a car to learn the assembling of intricate parts of engines. But against the motion, It is what really happens. Children try to parse the car into pieces and then assemble it, rectifying mistakes in the process. Quite against the intuition, even if that happens Cars have more parts than the number of words children get.

There can be only one possible answer that what we think as discrete small amount of data isn't actually so small. It was proposed that they have a large amount of innate information already wired into their brain, which was earlier considered as minimal.¹

We can say that they are born equipped with Universal Grammar(UG).

"UG is a characterization of these innate, biologically determined principles, which constitute one component of the human mind – the language faculty" (Chomsky 1986: 24). This is a distinct system of the mind/ brain' (1986: 25), separate from general intelligence. (Fromkin Page no. 107)

4 Modular Structure

With the Analogy of musicians combining simpler notes to make complex sound, Chomsky proposed that Our Brain have modules with simple principles in it, which combines to form a complex structure.

He named that module Language Faculty.

He also proposed some Principles like one mentioned in the recap, Like Principle which makes us to combine information, form and understand complex sentences correctly-

Ex- WHO DID KING SAY DOG BIT?

KING SAID DOG BIT MINISTER INSTEAD OF THIEF.

WHO DID KING SAY DOG BIT MINISTER INSTEAD OF THIEF.

One can even assume it is a Folder consisting of Many Simple Functions. Like It is stored in Programming Software. But When We write programs we call those simple functions, to make complex programs that can do complex tasks.

5 Why are not all Languages similar?

The Answer proposed by Chomsky was that the modules have option points, with switches that could be set to a fixed number of positions according to the experience.

Children knew in advance about the options available to them.

Chomsky proposed that Universal Grammar is partially wired up, and the switches must be set on the basis of simple experience or evidence.

If Children know in advance about the Head, then they just have to find subsidiary word positions.

Example:

THE CROW DROPPED THE CRUMBS DOWN THE TREE.

THE CROW THE TREE DOWN THE CRUMBS DROPPED.

THE CROW THE TREE DOWN THE CRUMBS DROPPED.

The first One is written in English while the second one is in Turkish equivalent, The Third One is Hindi Equivalent which is similar to Turkish.

He named switches as the Parameter of Universal Grammar. So It was named as Principal and Parameter approach. Principles are defined as functions to perform certain simple linguistic functions, whereas Parameters are

options/switches that we can set, and depending upon their value the language changes.

Similarly, the Periphery is whatever is added on in the system actually represented in the mind/brain of the speaker-hearer. Periphery are extra meanings added by our brain like Butterfly having two different Butter, and Fly has nothing to do with parsed words. So during learning, children can't connect it with Butter or Fly.

Therefore Child actually learns elements of Parameter and Periphery only.

6 Minimalist Program

It consists of a basic switch setting with Principles and Parameters.

It gave several pieces of evidence of the Principle like 'Shortest Move'.

Example:

GIN PURSUADED WHO TO BUY WHAT?

WHO DID GIN PURSUADED TO BUY WHAT?

*WHAT DID GIN PUSUADE WHO TO BUY?

We have also discussed some of th example mentioned previously was of parameters and principles only.

7 Conclusion

As per the latest theory proposed by Noam Chomsky, We considered the Minimalist Program as the theory to explain the procedure of acquiring language by Children.

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