

# Noam Chomsky's Linguistic Theory: Generative Transformation Theory

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**Abstract:** *Linguistics is a science that studies language. Language is a means of communication between individuals and other individuals. Psycholinguistics is a science that combines linguistics and psychology, or the behavior and thought processes that occur in each individual. The existence of this very significant language ultimately encourages experts to discuss language (linguistics). The purpose of this article is to explain several theories put forward by Noam Chomsky regarding linguistics. As a result of the thoughts and research of these linguists, the linguistic theory of Generative Transformation was born. Chomsky returns to the "hypothesis" or "natural theory", where language has existed since birth and the concept of language throughout the world is universal, called deep structure. This theory was put forward by Noam Chomsky because it is interrelated between a person's language skills and the thoughts each individual has. The generative-transformational theory laid down by Chomsky is the most prominent modern theory that reflects the ability of human reason and knowledge. This article also discusses the concept, characteristics, and advantages and disadvantages of generative transformation theory.*

**Keywords:** generative, linguistics, Noam Chomsky, psycholinguistics, transformation

## 1. Introduction

Culture is not born from a vacuum, it is preceded by other cultures which are elements of its formation, activities spread widely with various infrastructure, including language (Syihabuddin, 2005). Linguistics is the science that studies language. Language is a means of communication between individuals and other individuals. According to Ferdinand De Saussure, language is a system of arbitrary sound symbols used by members of a social group to work together, communicate and identify themselves. Chomsky believes that language is a part of the mind that is expressed in accordance with the working power of the human mind and cognitive system. In this context, language means a means of communication or a tool for human communication and interaction, both individual interactions or between individuals and society or society and other societies or society and the State (Tayar Yusuf, 1995).

The history of linguistics has gone through a very long journey and gave birth to various linguistic schools, each of which has different theories about a language (Balkis, 2023). Psycholinguistics is a science that combines psychology and linguistics. Psychology studies thinking processes or can be said to be a science that deals with psychology, behavior and thought processes that occur in individuals, while linguistics studies language. With this, psychologists and linguistics experts are developing knowledge related to the science of thinking and language. Therefore, the discipline of psycholinguistics emerged which examines the influence of language on thinking patterns and vice versa, thoughts influence language.

Language and thinking are two things that are interrelated and are important aspects of life. Language is used as a tool to express thoughts. Meanwhile, thinking is a process to create language. With language, a person carries out a

thought process to form language. On the other hand, thinking requires language as a medium for expressing what is being thought. Language is the result of culture. Culture is the result of thinking. The language of a particular society reflects the culture or behavioral patterns of that society. Therefore, it can be said that linguistic diversity is the same as cultural diversity. Language has a universal system, but at the external level or external structure, language has diversity. In other words, language diversity reflects the culture or behavioral patterns of the people who use the language. Language has an urgency in the survival of human life, which in fact cannot be separated from the function of language itself, namely as a tool of communication and social interaction (Jean Aitchison: 2008). The existence of language which can be said to be very significant ultimately encourages linguists to continue to produce ideas in the form of sub-sciences that specifically discuss language (SuwarnaPringgawidagda: 2002). From the many existing language theories, a linguistic theory was born which came from the thoughts and research of a linguist which was later called the Transformative-Generative theory (Imam Asrori: 2004).

Generative transformative theory, which actually tends more towards the acquisition of the mother tongue, has now been widely used in research on foreign language learning by academics. In fact, Chomsky did not explain explicitly about language learning, he was more oriented towards language acquisition. However, some groups have considered that this theory is relevant for use in foreign language learning (BagusAndrianPermata, 2009: 179–87). The existence of this very significant language ultimately encourages experts to discuss language (linguistics) (Luthfiyyatin, 2023). As a result of the thoughts and research of these linguists, the linguistic theory of Generative Transformation was born. Chomsky returns to the "hypothesis" or "natural theory", where language has existed since birth and the concept of

language throughout the world is universal, called deep structure.

### Method

This research is a type of descriptive qualitative research that tries to explain Noam Chomsky's generative transformative theory. In this research, Noam Chomsky's generative transformative theory is collected. The researcher's data analysis process uses the Miles and Huberman model which consists of data collection, data reduction, data presentation and conclusions.

## 2. Result and Discussion

### Biography Noam Chomsky

Avram Noam Chomsky is a linguistics professor who was born in Philadelphia, Pennsylvania, United States on December 7 1928. He is known in the field of linguistics through his theory of generative grammar. Raised in a highly educated family, Dr. William Zev Chomsky and Elsie Simonofsky. His father was a linguistics professor at the Massachusetts Institute of Technology (MIT) and a student of Z.S. Harris. He is a linguist. Chomsky was very active in participating in various linguistic activities of his father. This greatly influences his intellectual power and perspective in linguistic studies. His father was known as a Hebrew grammarian, described by the New York Times as a leading Hebrew grammarian who wrote a number of works on the grammar of the language.

Even at the age of 12, Chomsky was already reading one of his father's arduous works on 13th-century Hebrew grammar. Hebrew is still related to Arabic. Therefore, it is also very possible for Chomsky to read and study books related to Arabic, especially Arabic grammar. Noam Chomsky is known as the main figure of the Transformation-Generative linguistic theory. He is known for his book *Syntactic Structure* (1957). Then he developed his theory in his second book entitled *Aspects of The Theory of Syntax* (1965). The appearance of this second book gave rise to a new linguistic phase and a scientific revolution in the field of linguistics.

Noam Chomsky is also called the future GalileoGalilei or Rene Descartes. According to the Science Citation Index, from 1974 to 1992, his name was awarded 1619 times. This includes the Kyoto Prize, a kind of Nobel prize awarded in Japan, in 1988. When he was 12 years old, Chomsky read one of his father's heavy works on 13th century Hebrew grammar.

### Generative Transformation Concept

As a result of the research of several linguists, the Transformative-Generative linguistic theory was born. The most well-known main figure in Transformative-Generative linguistic theory is Noam Chomsky. This theory is one of the most prominent modern theories that reflects the ability of reason, discusses language issues and their acquisition, as well as their relationship with human reason and knowledge. According to this theory, the ability to speak and understand the language around humans is a construct of the language system that already exists within humans. According to

Chomsky, the focus of language theory is an effort to characterize the abstract abilities possessed by speakers, enabling speakers to use sentences that are grammatically correct in a language.

This theory is classified into the group of cognitive theories because this theory emphasizes the brain (mind and mentality) as the basis for the process of language acquisition and learning. According to Chomsky, a person's ability to speak is not a result or product of nature but rather the person's innate potential from birth. Chomsky also stated that there are innate characteristics of language to explain the acquisition of a native language in children in a very short time even though there is an abstract nature in the rules for using that language. The generative-transformational theory laid down by Chomsky is the most prominent modern theory that reflects the ability of human reason and knowledge. Another important problem in the theory of generative transformation is the power of creativity in language. Viewed from a semantic perspective, the grammar of a language is a system of rules that states the similarities or relationships between language sounds and language meaning in that language.

Viewed from the perspective of creative power, grammar is a special design tool that clearly explains the formation of an unlimited number of grammatical sentences and explains the structure of each sentence. Chomsky calls this design tool generative grammar. This theory tends to discuss the acquisition of mother tongue, in research on foreign language learning by several academic circles it is often used. Some groups consider that generative-transformational theory remains relevant for use in foreign language learning.

The Generative Transformation school originated from research conducted by Zellig Harris at the University of Pennsylvania around 1952 to 1957. Harris introduced a theory about the existence of various changes or what is now commonly referred to as Transformation. This theory is usually carried out in syntactic analysis in the form of changing the position of words in a sentence, expanding sentences, removing words or changing words. Generative transformation grammar is a linguistic theory which states that the goal of linguistics is to discover what is universal and regular in the human ability to understand and produce grammatical sentences. Sentences are considered as basic units, and the relationship between elements in the sentence structure is described based on abstractions called phrase structure rules (phrase structure grammar) and transformation rules as in the theory contained in generative grammar.

This transformation rule is not related to dividing sentences or making sentences into smaller parts, but rather as implied by the name. Transformation is changing and rearranging a structure in various ways. Meanwhile, generative contains two meanings, namely: 1) Productivity and creativity. Language is something that speakers produce without being bound by the various elements of the language itself; 2) Formal and explicit. From this point of view, it can be said that language is combined based on basic elements in the form of (phonemes, morphemes, etc.).

Meanwhile, grammar has the overall meaning of the rules that exist in the souls of language users which regulate and function to serve language users. Chomsky based his theory on the assumption that language is part of the human component and a typical product of the human mind. Because the element that differentiates humans from animals is their intelligence and ability to think. For Chomsky (1968) grammar is a system of rules that connects sound and meaning. Grammar must meet two conditions, namely: the sentences that appear must function in speech, as sentences that are natural and not made up. The grammar must be general and not based on certain language phenomena.

Transformation grammar is a grammar that is able to describe language broadly and flexibly. This grammar adheres to the changes that can result from an initial sentence while still referring to the structure of words and/or sentences, then continues with various changes in the form or pattern of certain sentences. These changes make the initial sentence very rich and varied. However, in general these changes can be classified into two parts, namely changes that are optional and changes that are forced/necessary. However, to understand these three concepts, it is necessary to first understand the concepts of inner structure or inner structure and outer structure or outer structure.

The characteristics of the Generative Transformation Flow include:

1) Language is a system

All linguists of the twentieth century recognized that languages are interconnected systems.

2) Language is mentalistic/psychic

This school believes that the language process is not just a stimulus-response process, but language is a psychological process. The language process is not just a physical process in the form of sounds as a result of vibration sources received by the auditory apparatus, but is a psychological process within the speaker. Therefore, this school is very closely related to the subdiscipline of psycholinguistics. Transformation theory is heavily influenced by previous theories, namely traditional theory (Greece and Romania) and structuralism theory.

3) Language is Innate

Transformationists fully assume that language is an innate factor (hereditary inheritance). That humans are born with genetic capacities also influences our ability to understand the language around us, the result of which is the construction of a language system that is embedded within us. According to Chomsky, this innate knowledge is likened to a "little black box" in the brain as a language acquisition device (LAD).

4) Language consists of elements of competence and performance

The problem of creativity in language has a big influence on language acquisition. Thus, because creativity will distinguish competence, namely the knowledge that language users have about the language and performance. Speaking is the use of language itself in actual circumstances. Competence or skill is a generative process,

and not a "storehouse" containing words, phrases or sentences like the concept of langue in de Saussure's linguistic theory.

5) Language consists of external structure and internal structure

Language analysis, especially syntax, includes a more concrete level in the form of syntactic forms or surface structure, there is also a more abstract level, namely deep structure. This deep structure is the main basis for discussing generative transformation theory.

6) Language starts from sentences

This school assumes that sentences are the highest grammatical level. From sentences the analysis goes down to phrases and then from phrases down to words. This school does not recognize the existence of clauses. According to this theory. Grammar consists of three components, namely phonological, syntactic and semantic components.

7) Language is creative

Language experience has a very significant influence on the development of human language itself, as it is ultimately the most intelligent form of behavior that humans have.

8) Natural hypotheses and universal rules

Natural knowledge, in Chomsky's view, is a fundamental problem which he later named "hypothesis" or "natural theory".

**Patterns in Generative Transformation Theory**

Jacobs and Rosenbaum state that transformation is a specific change process in which one sentence structure is changed into another sentence structure without any change in meaning. Changes in internal structure and surface (outer) structure are through a transformation process. Patterns like this are elementary transformations consisting of adjunction, substitution, deletion.

**Advantages and Weaknesses of Generative Transformation Theory**

The following are the advantages of the generative transformation flow:

- 1) The language process is a psychological process, not a physical one.
- 2) This school clearly differentiates between linguistic knowledge and language skills (linguistic competence and linguistic performance).
- 3) Can form other constructions creatively based on existing rules. So it can produce an infinite number of sentences because its grammar is generative. With the difference between core sentences and transformations, it can be distinguished between substance and manifestation.

While the disadvantages are:

- 1) Does not recognize the existence of clauses so that they cannot separate the concepts of clauses and sentences.
- 2) Language is innate, even though humans have the innate ability to speak, without getting used to it or training, it is impossible to be able to.

- 3) Every language always returns to the deep structure, while the deep structure itself contains uncertain meaning, thus allowing for ambiguity of meaning.

### Theory of Outer Structure (Surfacestructure) and Deep Structure (Deepstructure)

Chomsky regarding the relationship between language and thought proposed a hypothesis theory or natural theory. In the conscience hypothesis, it is stated that every human being has had the ability to speak since birth. The human brain has a system that forms universal concepts about language structure. There are two separate but interconnected aspects of thought and language. In connection with language and thought, Chomsky proposed the concepts of deep structure and surface structure. The languages in the world have a deep structure. This deep structure allows languages to be derived from the same concept.

In this case, it is known as the generative process of language, the result of which is generative grammar. For example, the concept after the subject is followed by the predicate, and this is a universal system and can be derived in any language, including all languages in the world. Deepstructure has nothing to do with the cognition system. On the other hand, surface structure allows for language diversity. Surface structure is a form of language output that allows for different languages. This is a form of view of speakers of different languages.

Deep structure is an abstract concept that exists in a person's understanding of meaning. The result is a sentence or sound which is called the outer structure or surface structure. Thus, the semantic aspect is a form of deep structure. Meanwhile, syntactic and phonetic aspects are forms of surface structure. This strengthens the relationship between language and thinking.

Chomsky said that he divided the universality of language into two forms, namely substantive universals and formal universals. Substantive universals are elements that form language. For example, in universal language in the world there are nouns (nouns), adjectives (adjectives) and verbs (verbs). Formal universals are arrangements for language substances depending on people's language use. The universality of language is the result of processing language in the mind.

### 3. Conclusion

The results of the discussion according to Noam Chosky's linguistic theory are the linguistic theory of generative transformation. A person's ability to speak is not a result or product of nature but rather the person's innate potential since birth. The focus of language theory is an effort to characterize the abstract abilities possessed by speakers, enabling speakers to use sentences that are grammatically correct in a language.

Generative transformation grammar is a linguistic theory which states that the goal of linguistics is to discover what is universal and regular in the human ability to understand and produce grammatical sentences. The characteristics of the Generative Transformation Flow are: 1) Language is a

- system, 2) Language is mentalistic/psychological, 3) Language is Innate (hereditary inheritance), 4) Language consists of elements of competence and performance, 5) Language consists of external structures and deep structure, 6) Language starts from sentences, 7) Language is creative, 8) Natural hypotheses and universal rules.

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