

# The Application of Generative Grammar to the Analysis of Sentence Structures in Vietnamese

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**Abstract:** To describe sentence structures in any language, a research can choose many methods to analyze structures in the linguistic. The purpose of this research is to apply some ideas of generative grammar to the analysis of sentence structures in Vietnamese. Generative grammar was a true revolution in the linguistics. The theoretical basis is Chomsky's concept of the base of the generative model as developed in his Standard Theory. The concept of the native speaker's linguistic competence is modified for covering the field of style and the cognitive process.

**Keywords:** Generative grammar, analysis, sentence structures, Vietnamese.

## 1. INTRODUCTION

Generative grammar is a theory of grammar, first developed by Noam Chomsky in the 1950s, that is based on the idea that all humans have an innate language capacity. Generative grammar is the most influential linguistic theory of the second half of the twentieth century. Linguists who study generative grammar are not interested in prescriptive rules; rather, they are interested in uncovering the foundational principals that guide all language production.

Generative grammar accepts as a basic premise that native speakers of a language will find certain sentences grammatical or ungrammatical and that these judgments give insight into the rules governing the use of that language.

## 2. LITERATURE REVIEW

Grammar refers to the set of rules that structure a language, including syntax (the arrangement of words to form phrases and sentences) and morphology (the study of words and how they are formed). Generative grammar is a theory of grammar that holds that human language is shaped by a set of basic principles that are part of the human brain (and even present in the brains of small children). This "universal grammar," according to linguists like Chomsky, comes from our innate language faculty.

Generative grammar is the most influential linguistic theory of the second half of the twentieth century. Starting with the publication of Noam Chomsky's *Syntactic Structures*, it went through a number of stages, increasing the systematic insight into the structure of the human language capacity as a species-specific component of the biologically-based cognitive endowment.

The first version, presented in the book *"Syntactic Structures"* (1957), is a Transformative Generative Grammar based on the rewrite rule; a sentence is a combination of an NP noun and a VP verb. Chomsky believes that a sentence consists of two parts: kernel sentences and transformations responsible for transforming this sentence in different ways. In this first version, Chomsky asserted the autonomy of syntax, whereby syntax is independent of semantics and usage. Chomsky gave an example to illustrate his point "Colourless green ideas sleep furiously." This is a perfectly

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grammatically correct sentence. The method of analyzing sentences is not based on meaning. At the same time, Vietnamese is characterized as an unmorphed language with syntactic characteristics expressed through word order, modal words, and intonation, showing that this analysis will encounter problems. Many problems cannot be solved when applied to Vietnamese.

The second version: Standard Theory presented in the book *Aspects of the Theory of Syntax* (roughly translated: "Aspects of the theory of syntax") clarifies the distinction between linguistic knowledge - language skills and language use. The inclusion of the category "surface structure" (surface structure, abbreviated S- Structure) and "deep structure" (deep structure, abbreviated D- Structure) contributes to explain why there are sentences with the same syntactic structure. The law is understood differently in meaning. The surface structure is the external form of a sentence, the corresponding form of a sentence that can be spoken and heard. This construct provides unambiguous indications for basic syntactic representations. A deep structure is an abstract representation that defines how a sentence can be analyzed and interpreted. Chomsky illustrated this structure through a pair of famous examples: "John is eager to please" and "John is easy to please." Chomsky explains this structural and semantic inhomogeneity through a pair of categories such as: following: two sentences with the same facial structure but different in depth: In the sentence "John is eager to please," John is the subject of the verb "please," while in the sentence "John is easy to please" then John is the object of the verb "please." Thus, in this version. Chomsky began to consider the role of semantics in the formation of the syntactic structure of sentences.

The third edition brought many fundamental innovations called the Government and Binding Theory. This version inherits the previous deep structure and surface structure knowledge base. In the version that appeared in the 70s of the twentieth century called "Extended Standard Theory," Chomsky negated some of the views in previous works and adjusted several rules used in his grammar.

The fourth edition, which has many radical innovations, is called "Government and Binding Theory." This version emphasizes that human language consists of the same rules hidden behind all grammars and parameters, leaving grammar variation very limited. The concepts of surface and depth structures were replaced by more technical concepts, called "D-structure" and "S-structure." This fourth edition is also known as the "Principles and Parameters (P&P) Theory," emphasizing principles and parameters.

Although Chomsky himself removed the terms deep structure and surface structure in his compact program in 1990, we find that it is still valid to apply the theoretical system related to these two terms.

### **3. THE ANALYSIS OF SENTENCE STRUCTURES IN VIETNAM**

There has been a specific suitability to analyze Vietnamese sentence grammar. Based on the previous versions, we find that Vietnamese grammar can be interpreted entirely according to the structure of the grammar that generates the second version for the following reasons:

First, Chomsky introduced the concept of Universal Grammar, a standard grammar for all human beings, which explains children's natural process of language acquisition. The acquiring language is an intrinsic capacity, thanks to a natural part available in the brain. As a result, when a child is born, the child already has the language and the internal grammatical knowledge to be able to acquire the grammar of their mother tongue without having to learn the complicated system of theoretical grammatical structures and hierarchies, so that children can create sentences they have never spoken before. As well as being able to understand sentences they have never heard before. Although they do not deny the role of experience and habit, generative grammarians argue that the communicative environment only acts as a trigger. The grammar machine is encoded in the child's mind, not from the outside into the child's mind. It is a universality that will create the "common code" about internal structural aspects of the "sessions."

Grammar versions of different languages around the world. Thus, even though languages are other, individuals are aware of some universal rules and some distinct parameters but always within a specific limit. In his works, Chomsky argued that learning a language means applying the principles of universal grammar to that language. So, although Chomsky's data was originally in English, later his research work expanded the data to other languages, including languages with similar php1 syntax order such as Vietnamese.

Second, in the metamorphic language and the non-transforming language like Vietnamese, there is a correlation between the structure according to the analysis of generative grammar. This not only Chomsky but also his descendants in his research also confirmed it. For example, Richard Kayne, a famous Chomskyist in the 90s of the last century, proved that all languages have an underlying structure in the order S - V - O [Kayne, R., 1994]. (SVO is the underlying structure of all languages). This was unacceptable in the 1960s but has gradually become a trend in syntactic analysis today. Based on expanding perspectives and sources when studying other syntactically ordered languages such as S-O-V;

VSO,... and make the conversion and point out that all other syntactic orders are variations of SVO, Vietnamese language can be analyzed entirely from a generative perspective on analysis by surface and structural structure. Therefore, although languages inherently carry many variations, whether they are morphological or non-morphological, they all have specific correlations and similar groups in the structure. In other words, these variations are not entirely random but follow particular directions, although the frequency and the level of use are not equivalent. For example, when saying a sentence with a subject-action-object affected by that action, there are six possible logical orders to form a sentence. An overview of the order of occurrence of these elements is summarized in the following table (Dryer, 2013a):

SOV	SVO	VSO	VOS	OVS	OSV
565	488	95	25	11	4

This table shows that most languages put the noun first, the verb in the order of the combined word followed by an action object. Other syntactic charges may be less numerous and follow specific trends within the six trends above.

Third, one problem that needs to be solved if analyzing the Vietnamese syntactic structure according to the generative school is Chomsky surveys based on morphologically transformed languages. The core sentences contain traces of the transformation. In other words, through the facial structure, we can see the paths of the corresponding deep form. Analyzing Vietnamese grammar will encounter the obstacle of the non-existence of traces.

Core sentences in metamorphic languages leave traces in the transformation process. in other words, the surface structure that leaves traces represents the corresponding deep structure. However, in Vietnamese, atoms do not exist.

For example, the same core sentence with a deep structure: "A for B for X" in Vietnamese can have three different face structures: (1): Nam đưa An quả táo; (2): Nam đưa quả táo cho An; (3): An được Nam đưa cho quả táo; (3): Quả táo được Nam đưa cho An.

The phenomenon of heterogeneity between surface structure and deep structure is not absent in English. For example, He loves me more than you. Later, when Chomsky began to pay attention to the role of semantic factors in analyzing grammatical structure, the determination of surface or deep structure did not necessarily rely on trace elements. Besides, in the same example that Chomsky gave, he also pointed out whether the typical research he investigated, like English, also has phenomena in which sentences have the same surface structure but have entirely different deep structures leading to differences in meaningful content.

For example: "John is easy to please" and "John is eager to please."

The trace in these cases is not meant to help distinguish two different deep structures in the two given sentences. Even though some face sentences have a certain form, with a unique surface and deep structure, some face sentences can still carry ambiguous semantic information such as: "I like her cooking." Receiving this sentence with incomplete contextual information, it is difficult for the receiver to determine what this statement means: I like the food she cooks or I like the way she cooks...

Fourth, Chomsky's recognition of the surface and deep structures is the basis for applying semantic elements to solve some of the obstacles related to the characteristics of non-informed languages. During structural analysis. Some features of Vietnamese syntax are reflected in the expression p . syntax.

Adapt Vietnamese by ways such as word order, synonyms, and intonation. The sentence "Anh ta lại đến" is different from " Lại đến anh ta "; " anh của em " is not the same to " anh và em." In addition, intonation also plays a vital role in determining the syntactic structure in some Vietnamese sentences. For example: " Trâu cày không được giết " differs from " Trâu cày không được, giết." These problems in Vietnamese grammar can be solved when in his work in 1965, Chomsky clearly stated the operation method as well as the role of semantics in analyzing the surface structure and deep structure of sentences. . He asserted (the writer roughly translates) the deep structure of a sentence is loaded with semantic elements to explain the semantics, while its surface structure is loaded with phonetic features and performs the interpretation.

The result of grammar, then, is to connect a semantic interpretation with a phonetic variation. This will confirm how to interpret a sentence. (The deep structure of a sentence is submitted to the semantic component for semantic interpretation, and its surface structure enters the phonological component and undergoes phonetic variation. Then, the final effect of grammar is to relate a semantic understanding to a phonetic performance— that is, to state how a sentence is interpreted) (Chomsky (1965), p. 1945).

#### 4. CONCLUSION

Finally, although we believe that it is possible to analyze Vietnamese sentences from the point of view of generative grammar, there are still problems that generative grammar cannot solve. We agree with Professor Nguyen Van Hiep's point of view when he thinks that "finding universal grammar is long and gradual: if grammar theory applies to  $n$  languages, but not if it applies to the  $n+1$ th language, that grammatical theory needs to be adjusted and supplemented to apply to that  $n+1$ th language". After that, it must also be adjusted and supplemented to apply to the  $n+2$ ,  $n+3$ ,  $n+4$ ,..." (Nguyen Van Hiep, *Generative grammar and evaluation*). The phenomenon of "non-standard" language of today's youth). Vietnamese syntax, although in SOV order is the most common order in the world, so it is easy to analyze the syntactic structure like the way used with other SOV structured languages, but in addition to the case of Vietnamese language also has many sentences that grammar creates - with its characteristics, it is difficult to analyze. For example, Vietnamese people often say: In front is the sky. There is money in the pocket. She's just as beautiful as she is... Therefore, to apply generative grammar to the analysis of Vietnamese sentences thoroughly, it requires generative linguistics researchers to calculate and further expand the range of variations" of the universal grammar so that at least the theoretical foundation of generative generation will be based on the background of thoroughly studying variations in the world language picture. At that stage, Vietnamese and any linguistic structure can be analyzed generatively.

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