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# TRANSFORMATIONAL GENERATIVE GRAMMAR AND COGNITIVE THEORY OF NOAM CHOMSKY – A THEORETICAL STUDY

R. VANITHA

Assistant Professor Department of English Karpagam University Coimbatore, Tamilnadu, **INDIA** 

### **ABSTRACT**

Language policy and planning is a complex task that shapes and it influences in turn. In recognizing these complexities and realizing the possibilities into account in developing a language-in-education policy, Chomsky describes the goal of education as to produce human beings whose values are not accumulation and domination instead it is free association on equal terms. Thus, instead of setting standards or specific guidelines, Chomsky argues that "the value of education should be placed on students' critical thinking skills and the process of gaining useful and applicable knowledge". And he pointed out that the society simply reduces education to the requirement of the market. This paper studies the theoretical perspectives of Noam Chomsky's views on transformational generative grammar and cognitive theory.

**Key words:** Noam Chomsky, transformational generative grammar, cognitive theory.

#### INTRODUCTION

Avram Noam Chomsky was born on 7, December 1928 in Philadelphia, Pennsylvania. A list of political activists and professors in language influenced and made him as a remarkable linguist and political activist. His own life experience as a Jew motivated him to participate in politics. His introduction to theoretical linguistics was done by Zellig Harris who convinced Chomsky to study linguistics as a major subject. Hence, Chomsky did his bachelor's thesis in Morphophonemics and he sincere enough to revise his own bachelor thesis for his master's degree thesis which was published as a book. His first academic article dealt with the Systems of Syntactic Analysis. And his research on Transformational Grammar made him to get his doctoral degree. His thesis was published in 1975 as a part of The Logical Structure of Linguistic Theory. After his doctoral research, he published numerous papers on mathematical linguistics. He joined as an Assistant Professor in

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Massachusetts Institute of Technology (MIT) and promoted as an Associate Professor and Professor in the Department of Modern Languages and Linguistics. His first book on linguistics was titled as Syntactic Structures. His lectures as a Beckman Professor at the University of California, Berkeley were published as a book, titled "Language and Mind". He continued to write various books on linguistics. His advance study on linguistics was published in the year 1972 as "Studies on Semantics in Generative Grammar" and it was known as the enflamed version of his books 'Language and Mind' and 'Reflections on Language'. Honorary D.H.L was awarded by Swarthmore College and Bard College. For his valuable work on linguistics, he was awarded honorary doctorate from the University of London, University of Chicago, Loyola University, Delhi University, University of Massachusetts and he was honoured as a corresponding fellow of the British Academy. He is respected as 'the father of modern linguistics' for adding a strong cognitive theory in the field of linguistics and strengthening it by his wisdom.

#### **Chomsky's Linguistics Theory**

He maintained a view that most of the knowledge on language is innate, so the child can has a large part of prior knowledge on language structures in insubstantial and the child has to only learn the idiosyncratic structures of the language. The above said view of Chomsky is so much related to the naturalist theory of language learning. "Generative Grammar is a way of describing the technique in which people learn to communicate. The core of this theory is the idea that all human languages originates from a common source, an innate set of grammatical rules and approaches that is hardwired into the human mind. This is a very naturalistic approach, but one that has found ever increasing acceptance amongst experts in the field" (Chomsky, 1986). He also spoke about the difference between 'competence' and 'performance' in language use. He strongly argued that the person who speaks can make linguistic errors and it is irrelevant to the linguistic competence. In that way, he made his views clear that the linguistic performance is totally different and irrelevant to the competence in linguistics. His thoughts gave a way to bio linguistics and considering the language learning as a natural process. He termed the inborn language talent of a baby as Primary Linguistic Data (PLD) and the child can learn language when it supplemented with the Language Acquisition Device (LAD) and it is unique and used only by humans. He insisted that efficiency in framing the LAD is a responsibility of linguistics and PLD is common to every human being. Chomsky's views on linguistics mostly focussed with respect to the nature and understanding specifically to the structure and use of language. We can better understand this by the following Chomsky's words "Notice that similar considerations show that knowing-how - for example, knowing how to ride a bicycle - cannot be analysed in terms of abilities, dispositions, etc.; rather, there appears to be an irreducible cognitive element.".(Chomsky2000) pg.52.

**Transformational Generative Grammar (TGG)** 

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Chomsky introduced his theory on Transformational Grammar (TG) and it challenged the structural linguistics. TG related the word meaning and sound. The TG rules were expressed in mathematical notation by Chomsky. In this theory he gave an in-depth information on the deep structure and surface structure of the language. The deep structure acts as a foundation and gives conceptual meaning and the surface structure acts as a spoken utterances. Kolln and Funk explained TG as, "Unlike the structuralists, whose goal was to examine the sentences we actually speak and to describe their systemic nature, the transformationalists wanted to unlock the secrets of language: to build a model of our internal rules, a model that would produce all of the grammatical – and no ungrammatical – sentences."

Chomsky explained the deep structure as inaudible voice of the language and this deep structure can be converted by generative transformational rules of the language into a surface structure, the same time he believed that it can be converted in abundant ways. He further stated that the deep structure is few in number and it is easy when compared to the surface structure of the language. Grammar is generative in all ways. A generative grammar is not much worried with any actual facts of the language but it was very brave and concerned on the possible ways and facts of the language. So we can sum up that all the generative grammars are transformational in nature. If predictive and explicit type of grammar is generative it will bring transformation as Chomsky believed, argued and proved. So, his theory of Transformational Generative Grammar (TGG) provided both the transformational and generative. And this view can be better understood by Chomsky's words, "It is the idea of innate and natural grammar that really sticks. While there is little dispute at this point that some of the more fundamental functions of the human brain are transmitted as instincts. We don't have to be taught to breathe, after all. The concept of an underlying mental matrix that informs all of human language is a bit of a departure from more traditional views on the origin of verbal communication." (Chomsky, 2000). According to the above said view, he explained that every sentence in the mind of the speaker is an invisible deep structure and the speaker is transforming this deep structure as a visible structure of language like spoken or written language by using the transformational rules of grammar. The syntax which is invisible in the speaker's mind can be transformed by transformational rules. generative' grammar is not concerned with any actual set of rules on sentence formation or sentences of the language but with the possible set of sentences, hence this kind of generative grammar is transformational also. And TGG is generative and to say that it is explicitly, clearly, methodically, accurately indicates all other possible sentences of the language. Unlike the sentence structures which were existed before TG, this new TG theory gave a strong foundation to build embedding sentences. For example, the sentence "Has Raj seen Marry?" can be transformed as "Raj has seen Mary".

The same time TG replaced the old phrase-structure grammar by its new simple and sophisticated way of sentence structures. Chomsky's TG theory has to face the criticism that

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it made the theories more abstract and complex in many respects. James rightly said, "(T)he tinkering failed to solve most of the problems because Chomsky refused to abandon the idea of deep structure, which is at the heart of T-G grammar but which also underlies nearly all of its problems. Such complaints have fuelled the paradigm shift to cognitive grammar." TGG is all about the deep structure which is a phrase-structure in mind and the transformational generative rules like pronunciation, addition of words, etc. which helps to generate the hidden phrase-structure of a sentence into a new surface-phrase structure of a sentence

#### Conclusion

As a real lover of language, Chomsky is ready to revise his own theories with broad mindedness to improve the theories and he replaced them with broader rules but in a deeper sense the rules shared the impression that the syntactic structure is the soul of our linguistic knowledge and grammar can be alive through generative rules. TGG has given room to new thoughts in sentence formation and it explained the sentence structure technically than the old theories and it is bit more cognitive also. In regardless of all criticisms, the linguistic community has to owe their thanks to Chomsky for his theories.

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