

# **The Status of Semantics in Transformational Generative Grammar**

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## **Introduction**

Meaning is one of the problems which seems difficult to deal with to such extent that Leonard Bloomfield, who resisted the mentalist approach to language, considered it impossible to define meaning till we have a scientifically accurate knowledge of everything in the speaker's world. Linguists consider meaning as one of the most complex subjects to deal with and some of them are in doubt whether meaning can be studied objectively and systematically as phonology and grammar or not. The complexity and vagueness of semantics are due to the fact that semantics is not concerned with one specific field but with various fields such as: philosophy, logic, psychology, anthropology, and sociology. Many linguists, recently, do their new theory of grammar.

This paper is intended to present a brief study of the status of semantics in Transformational generative grammar. It is of three parts:

1. Part One is concerned with the scope of semantics.
2. Part Two presents a historical survey of semantics and its historical development in the schools of grammar.
3. Part Three is a review of the status of semantics in the Transformational schools of grammar.

## **Part One** **The Scope of Semantics**

### **1.1 Preliminaries**

To deal with semantic analysis, we should show the difference between the two approaches of linguists and philosophers to semantics because each of them deals with semantics, as it is relevant to his field of study. Linguists study semantics in order to understand how certain sequences of sound are systematically associated with particular interpretations, whereas philosophers study semantics for its relevance to questions of anthropology.

There is disagreement among linguists about the study of semantics in language. The linguists' disagreement is whether to include semantics in the study language or not because there is no clear-cut line for linguists to follow. The understanding of the fundamentals of semantics was not easy to come because of the absence of materials written from a linguistic rather than a philosophical or anthropological perspective. The philosophers and the psychologists are very interested in the study of meaning because of its relevance to their studies.

## **1.2 The Scope of Semantics**

Many semanticists and linguists agree that semantics is the study of meaning but when they begin dealing with particular aspects of it, different views will arise. The term semantics is of recent origin, begin coined in the late 19<sup>th</sup>. C. from a Greek verb meaning (to signify) (See Lyons, 1979).

The term "Semasiology" as viewed by Basilius (1957:97) refers to meaning and the study of it. This term was set up by Christian Karl Raising, professor of Latin at the University of Hale, about 1825 and considered as 'a historical discipline which would seek to establish the principles governing the development of meaning'. Reising's trend in historical research of meaning was traced by his disciples and followers until Ferdinand de Saussure's Course de Linguistique general was published. Then the need for synchronistic study as well as dichronistic was a necessity in the newly-discovered scientific discipline .

In the Course which appeared in 1916 de Saussure looks at language as a 'system of signs' and regards its various elements as linked to each other and derive their significance i.e. their value from the whole system they belong to.

The word 'Semantics' applied to the science of meaning, was actively used for the first time in 1883 by the French linguist Michel Breal who thought that he was the pioneer in this branch of linguistics.

Semantics as a new name semasiology has been developing so fast and its importance in linguistics is being recognised widely. Semantics, then, has been the ultimate aim of the reading process. Its study, no doubt, sheds light on the concept of reading comprehension and interpretation. Semantics studies not only the meaning that can be expressed, but also the mediums through which that meaning is to be expressed (Leech, 1974:24).

The Greeks and the Romans participated in one way or another in the appearance and the development of meaning. Some linguists refer to the Greeks and the Romans as the pioneers of semantic studies. Democritus, for example, distinguished between two kinds of what is today called (multiple meaning), that a word may have more than one meaning and

vice versa. This shows that the study of meaning is not restricted to new trends only.

We should know the fact that two important phenomena participate allot in the appearance of semantics and its existence as an independent science and these phenomena are:

1. The appearance of comparative philology.
2. The appearance of linguistics as a scientific study of language as it is looked at nowadays.

Robins (1978) accounts that semantics is the study of meaning in language. The meaning in language, is not a single relation or a single sort of relation, but involves a set of multiple and various relations holding between the utterance and its parts and the relevant features and components of the environment, both cultural and physical, and forming part of the more existence of human societies. It is the relationship between language and the rest of the world. Thus, the semantic theory should make reference to the syntactic structure in a precise way and how the structure of the meanings of words and the syntactic relations interact, in order to constitute the interpretation of sentences. Finally, it should indicate how these interpretations are related to the things spoken about.

## **Part two** **Historical Survey**

### **2.1 Preliminaries**

In dealing with any level of language, it is better to show the three schools' approaches (traditional, structural, and transformational) to that level i.e. semantics. Each school of thought accounts for any linguistic phenomenon in its own way reflecting the philosophy spread at that time. We will first make a brief presentation of traditional concepts towards semantics to be followed by a brief survey of the basic assumptions underlying the more recent approaches to language study and semantics, notably structural school of grammar.

### **2.2 Traditional Approach**

Traditional grammar refers to that tradition of linguistic theory which originated in Greece, was further developed in Rome and Medieval Europe and extended to the study of the vernacular languages at the Renaissance and afterwards. In England it was adopted by the grammarians of the eighteenth century, most notably Joseph Priestly, Robert Lowth, George Compell and Lindley Murray(See Thomas, 1965:9).

We know that traditionalists considered language as a reflection of thought. So, grammar should represent the laws of human thought. For

them semantic relationship which can occur between words and things they signify is of (naming). Although traditionalists depended on meaning as a base, they did not adopt certain rules and principles and maintain them.

Some of the traditional features concerning the meanings of words are: reference, classification of words semantically in terms of synonyms and antonyms. Traditional semanticists considered the existence of concepts as a base to the whole theoretical framework of meaning. This will face some obstacles because philosophers and psychologists disagree about the status of concept and idea in the mind. Some facts such as the relevance of context and the circularity of meaning (there is no one point in the vocabulary from which you can start and from which you can derive the meaning of the rest) are not given full theoretical recognition in traditional semantics. Concerning syntax, traditional grammarians did not state the exact nature of relationship between syntax and semantics.

Traditionalists believed that, the word is the basic unit of syntax and semantics. The word according to them is a linguistic unit that has a single meaning. We know that there are many words, which cover more than one particular meaning. Besides, the traditional semanticists insisted on the idea of (meaningful) and side that only the major parts of speech (nouns, verbs, adjectives, and adverbs) were meaningful and that the other parts of speech participated to the total meaning by imposing a certain grammatical form.

Therefore, grammarians such as Curme , Zandvoort and Eckersely described English grammar in terms of notional values. We can say that meaning somewhat flourished at that time and covered a certain area in the study of language.

### **2.3 Structural Approach**

The nineteenth century saw a radical break-through into new ways of investigating language. Language came to be analyzed inductively and objectively in accordance with tendencies observed in other fields of scientific research. As a result, a new approach, namely the structural (or descriptive) approach to the study of language took shape.

Structuralists deal with concrete phenomena (observable facts). Therefore, they insist on the study of phonology first and consider semantics as an end (result). They maintain that the total linguistic meaning of any utterance consists of the lexical meaning of the separate words plus structural meaning. The grammar of language (structural meaning) consists strictly of formal devices that can and must be described in physical terms alone. They say that the description of meaning must be put off until the task of describing language formally is done. Instead of talking about what a noun means, for example,

structuralists began looking for other devices to describe a noun contradicting traditionalists' belief. Structuralizes believe that if letters or utterances did not have certain forms, they could not give certain and clear meaning. They did not accept the idea of intuition because they thought that anything couldn't be studied and analyzed without observing and testing it. In other words we can say that Structuralists excluded the use of meaning as a tool of analysis. Bloomfield, for example, depends on a realistic view of relationship between language and the world.

### **Part Three** **Semantics in Transformational Grammar**

#### **3.1 Preliminaries**

Transformational generative grammar is the most recent approach to the study of language. It was first introduced by Noam Chomsky in his famous book (Syntactic Structures) in 1957. The approach draws heavily on the conclusions and findings of the traditional and structural schools but marks a radical departure from both. It proposes a different view of language and suggests other new procedures for studying it (See Chomsky, 1975).

However, the 'revolution' in linguistics that was inaugurated by Chomsky's 'Structures' had a great impact on linguistics as a science but underestimated the value, or even avoided discussing semantics as an integral part in that science. In the late fifties, the notion of semantics as an important component within linguistic science was hardly acceptable, especially to some linguists who were influenced by Bloomfield's ideas. Nevertheless, there were some techniques in studying meaning such as semantic field technique which was developed in the late twenties, yet it was just a step towards more serious and useful study.

Transformationalists believe that there are two phenomena: the first you can see (physical) and the second you cannot see which is beyond the physical one. Accordingly, they distinguished between two structures: deep and surface. Thus, they gave priority to meaning because it forms the deep structure.

#### **3.2 Semantics in Transformational Approach**

In transformational grammar semantics has been given priority and a degree of attention previously paid to syntax and phonology. This interest arose because of the controversy which developed among linguists about the place of semantic interpretation within this new theory. Transformational semanticists believed that an understanding of the fundamentals of semantics was very necessary to settle some questionable aspects within language.

Transformationlists believed that semantic interpretation (meaning of any utterance) is implicit in the deep structure of language and not in the surface structure. It has been said that semantic components representing relations between two terms or more than two should be introduced. The sentence, for example, consists of lexical items and the semantic representation of a sentence as a complete unit, is derived from the syntactic deep structure by certain universal operations which combine the meanings of the lexical elements of this deep structure according to the relevant syntactic relations.

Semantic features cannot be different from one language to another but they are part of the general human capacity, forming a universal inventory used in particular ways by individual language.

In fact, some cases of grammar are proposed by transformational grammarians such as: agentive, instrumental, dative, factitive, locative and objective. And some of the advantages of case grammar are:

1. It makes deep structure reflect meaning.
2. It makes it possible to analyze underlying semantic relations.

Accordingly, the generative semanticists acknowledge their debt to case grammar.

American linguists, for example, treated semantics in one of the following ways:

1. Admitting only a well-defined minimum of it.
2. Not admitting it from outside but pretending that it was already there.
3. Admitting all of it.

The first approach was an outgrowth of fieldwork and made use of (differential meaning). This is the minimal sort of meaning that an informant relies on when he is asked whether the two words, for example, are the same or different.

The second approach deals with meaning without going outside language. It is a refined version of the idea that (context decides meaning)- if we know the company that a word keeps within the society of words, we shall know what it means.

The third approach was that of transformational generative grammar in its early stages. Meaning at last was to come onto its own as we showed in the previous pages (See Fodor, 1979:425-431).

### **3.3 Various Viewpoints Concerning Semantics**

Many points of view concerning semantics and semantic theories were introduced and the following are some of them:

Quine and Weinreich agree that field work in semantics proceeds without much theoretical foundations but they disagree in one point.

Weinreich's remark assumes the availability of a semantic theory which is not connected to empirical investigations, while Quine denies the availability of such theory. Quine's view on this matter influenced Chomsky's early work in this field.

Leech states his theory of semantics in four central notions: meaning, application, context and lexical subsystem. Lyons denies that a language has an overall system and maintains that (semantic structure) is defined in terms of certain relations between the items in a particular lexical subsystem. The relations within the subsystems are incompatibility, antonymy, hyponymy, consequences and synonymy.

Fodor states six philosophical approaches to meaning: referential, ideational, behavioral, verificationist, speech-acts, and truth-conditional. Although each of these approaches has the ability to characterize the meaning of an expression, it has its strengths and weaknesses. The most valid ones are the speech-acts and truth-conditional.

The role of semantics in determining the shape of grammar has been heavily debated topic since Katz and Postal first put and introduced their integrated theory on the basis of a number of hypotheses including: (transformations do not change meaning).

Lakoof, Ross and Mccawley rejected the idea of projection rules and retained integrated theory's basic assumptions about semantic representation.

Chomsky and Jackendoff rejected the integrated theory in favour of a theory in which semantic rules are allowed to contribute to meaning.

The contextual theory of meaning was developed by Firth to form a general theory of language and of linguistic analysis. This theory has been of considerable influence in Britain (Robins, 1978 and Jackendoff, 1975:192).

### **3.4 Recent Developments in Semantics**

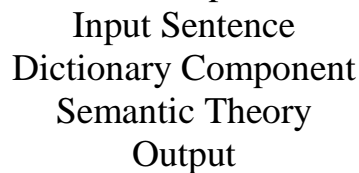
It was not until the publishing of Katz and Fodor's (The Structure of a Semantic Theory), 1963 that semantics has started to receive attention, and since then it has been taking more and more important position, linguistic theory. This was followed by Katz and Postal's (integrated Theory ) 1964. Then appeared Chomsky's (aspects of the Theory of Syntax) 1965 in which he stretched his theory to give semantics its right place side by side with syntax and phonology.

This does not mean that semantics, in the sense of studying meaning, is a modern invention, for the subject of meaning is as old as the word itself; but the recent development in semantic is the one significant factor in linguistics, and therefore to be studied scientifically.

In fact, the structure of the semantic theory has taken the study of semantics from a second place after syntax and phonology to a first one

side by side with them. Katz and Fodor were looking for a solution to the problem of ‘what from should a semantic theory of a natural language take to accommodate in the most revealing way the facts about the semantic structure of that language supplied by descriptive research?’ No doubt, a native speaker of a natural language, they say, is able to use fluently, and understand any of the infinite set of sentences in his own language while he has been confronted by only a finite set of them. This claim leads one to suppose that there are rules which project the finite set he has used to the infinite set of his language. The form of rules which regulate this process is referred to as the ‘projection rules’.

Furthermore, any lexical item in a given sentence is supplied with more senses, by a dictionary, than it can bear. Thus, the task of the projection rules is to select the most suitable sense of each item in that sentence. Therefore, the semantic interpretations which answer to the speaker’s ability to understand sentences must, they say, mark each ambiguity, explain how a speaker detects anomalies; and finally relate the paraphrases of sentences to each other. This is briefly how a semantic theory describes and explains the interpretative ability of speakers:



### **3.5 Semantics and Syntax**

In fact, Katz and Fodor’s theory has stimulated others to take semantics seriously. In ‘Syntactic Structures’ 1957, for instance, Chomsky avoided if not ignored the semantic component, and did not give it the importance the other two, syntax and phonology, had. But later in the ‘Aspects’ 1965 he revised his attitude to consider the semantic component as an integral part of any theory in linguistics.

As a consequence of the new era of semantic study, after it was granted admission to be within the region of linguistic science, researchers turned to explore the relation between syntax and semantics in order to solve the problem of ‘which effects which’ in a certain stage of utterance production. The argument was whether surface structure or deep structure is the one responsible for the semantic interpretation of a sentence. Katz and Fodor affirmed that surface syntactic structures might be the input to the projection rules of the semantic component.

On the other hand Lackoff, Mccawley, Ross and others developed what is called ‘Generative Semantics’. This theory claims that from a semantic base, i.e., the base components of grammar generate sentences.

In view of these conclusions we can say that the semantic component receives the deep structures as its input and assigns semantic



interpretations to them. It should be noticed that the deep structures contain all the syntactic information necessary for semantic interpretation.

### **3.6 Types of Meaning**

Meaning, as viewed by Leech (1974:26), has seven types of meaning:

1. Conceptual meaning or sense.
2. Associative meaning:
  - a) Connotative meaning.
  - b) Stylistic meaning.
  - c) Affective meaning.
  - d) Reflected meaning.
  - e) Collective meaning.
3. Thematic meaning.

Since communicative meaning can only be fully understood in a context of equal evaluation of these seven factors of meaning, each category is to be explained and justified as a source of a certain type and level of meaning.

However, the scientific study of semantics, which focuses on the study of ‘conceptual meaning’, has been facilitated by linguistics, as the scientific study of language, with the view that the study of meaning is an integrated part in the whole concept of how language works.

In fact, such types and shades of meaning could be thought of and associated with the various colours of light.

### **3.8 Conclusion**

We have seen various approaches to decide the meaning of any utterance and we can say that all these approaches partake in establishing the meaning. Many linguists avoid dealing with semantics because of the vagueness and complexity of the relevant phenomena. We know that semantics is an essential aspect in the study of language because no one ever succeeded in writing a grammar that paid no attention at all to the features of meaning. Cases of grammar can not be handled without semantics because if we do not take the meaning of any expression into consideration, ambiguity will arise as in: (Flying planes can be dangerous). We have seen that traditionalists and transformationlists are alike in giving priority to semantics but they differ in the approaches they

follow. On the other side there are the structuralists who give priority to phonology and consider semantics as an outcome.

Semantics is one and the same in every language and there are different theories concerning it. Every theory reflects the philosophy of that semanticist, therefore various theories do not matter because the subject is the same and it is normal to find different approaches to the same aspect. Some structuralists say that the greater concentration of interest upon the theory of semantics will bring linguists back to the traditional view that the syntactic structure of language is very highly determined by their semantic structure.

In spite of all that has been written in recent years, and the rapid development of semantics as a science, within the linguistic sphere, there are still more issues to discuss, analyse, and to find them tenable solutions.

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