CASE GRAMMAR THEORY

Dr. Ukazu, J.C.

Federal College of Education, Pankshin
Ukazujohn67@gmail.com | 08060448851

Abstract

Grammar is the hub through which the wheel of language revolves. This presupposes that without grammar there will be no entity called 'language'. However, the teaching of grammar, over time, is marred by complexities. This perhaps explains why Chomsky and other scholars had proposed different theories of grammar to quell some of these complexities. This paper, therefore, explores the working of case grammar propounded by Charles Fillmore in order to explain how syntactic structures are formed using the basic tenets of case grammar. The paper argues that the theory of case grammar is capable of reflecting the inseparability of syntax and semantics at the deep structure level.

Keywords: case, grammar, syntactic structure, phrase and Fillmore

Introduction

In what seems like a permanent solution to the problem of language description, Chomsky's (1965) *Aspect of syntactic theory* and (1981) *Lecture on government and binding,* provide the native speaker of a language with the innate propensity to generate an infinite strings of sentences with a finite number of phrase structure and other transformational rules. Yet, these theories themselves are, however, problematic because they also could not provide solutions to some sentences, especially those which are ill-formed, although they may grammatically accepted. Chomsky himself is aware of these lapses. That is why he intentionally gives this famous example: "Colourless green ideas sleep furiously", maintaining that although the sentence is grammatically structured following the sentence rules of obligatory noun phrase (NP) and verb phrase (VP), the sentence, semantically, is meaningless because the role assigned to the NP does not conform to what the NP linguistically required.

Many syntactic theories also have come to address the grammaticality of English sentences. But not until 1968 when Charles Fillmore propounded the theory of case grammar, other syntactic theories were not interested in the grammatical functions of word classes. Phase structure rules, for instance, are only interested in assigning a number of rules to NPs and VPs without considering the features such as subject, object, patient, and others. However, it is the introduction of case grammar that the syntactic functions of both the subject and object are given adequate attention. Fillmore achieves this through a substantive modification known as **aspects model**. According to him, features such as surface structure realisation of a particular syntactic relationship are not present in deep structure at all. The surface realisation includes noun inflections, prepositions, constraints and word order. Charles Fillmore needed a 'case' that will capture the semantic information necessary for syntactic analysis (Fillmore, 1968, p. 3), and that is probably why the introduction of case grammar becomes absolutely very necessary in linguistics.

Case grammar

Even though Gruber (1965) made an attempt to propound the theory of case grammar in his Ph.D. dissertation entitled *Studies in lexical relations* in 1965 where he formalised certain relationships between lexical items within the framework of generative grammar (although he entitled it as **pre-lexical system** instead of a case), it was Charles J. Fillmore, an American

linguist who in 1967 formally propounded the theory of case grammar in his work entitle *Case for Case* in the context of transformational grammar. The theory is further modified by Dick (1978, 1980) as functional grammar and by Starta (1978) as lexi-case model. It is primarily a reaction against and modification to the revised standard-theory analysis of sentences where notions such as **subject**, **object** and **complement**, among others, are neglected in favour of NP, VP, Prepositional phrase (PP), adjectival (Adj.P), and others.

In the words of Nordquish (1990), case grammar is a linguistic theory that stresses the importance of semantic roles in an effort to mark explicit the basic meaning relationships in a sentence. He views the theory as a substantive modification to the theory of transformational grammar. The theory focuses on syntactic functions of the grammatical features because it assumes that several kinds of semantic relationship could be represented adequately, which will be otherwise be very difficult or impossible to capture when analysed with transformational generative grammar (TGG), or any other theories after it. The theory analyzes the surface syntactic structure of a sentence by studying the combination of deep cases, that is, the semantic roles such as Agent, Object, Benefactor, Location or Instrument which are required by a specific verb.

The theory emphasises that what is really very important about a verb is it **semantic valence** (or the number of subjects and object, etc.) and the grammaticality it requires, that is, a relationship of its semantic roles of its arguments. It also stipulates that verbs could basically have two kinds of features relevant to their distribution in sentence: deep structure (value distribution expressed in terms of what is called **case frame**) and rule future. In addition, the theory analysis the surface syntactic structure of sentences by studying the combination of deep structures – that is, semantic roles – agent (A), object (O), Benefactor (B), location (LOC) or instrument (INST) which all are required by a specific verb. For example, the verb 'give' in example (1) requires an A, O and B as shown below:

(1)   Michael (A) gave money (O) to me (B).

According to Fillmore, each verb selects a certain number of deep cases which forms its case frame. A case frame describes important aspects of semantic valency, that is, the number of arguments controlled by a predicate, typically a verb. Case frames are subject to

certain constraints such that a deep case occur only once per sentence. Some of the cases are obligatory, whereas others are optional. Obligatory cases may not be deleted even at the risk of producing ungrammatical sentences. Consider example two:

(2)   *Mary gave <u>the apple</u>.

The interest of case grammar, therefore, is that grammatical functions such as subject or object are determined by deep semantic valence of the verb. In other words, 'case' is seen as the inflectional forms of nouns due to their different syntactic functions. According to the traditional grammarians, 'case' is the most significant inflectional categories of a noun.

(3)   a. John beats the boy.

         b. The boy fears John.

Examples (3a&b) demonstrate that NPs can take two forms to reflect the different syntactic functions in the sentence. 'John' and 'the boy', for example, take two different forms in the subject and object positions. When they function as the subject, they are in the nominative (NOM) case and when they function as the object, they are in the accusative (ACC) case.

As pointed out earlier, 'case' was developed due to the inability of the standard theory (ST) model to present both categorical and functional information to features like prepositional phrase (PP). For example, ST model has no way of showing that PPs such as 'in the house', 'to the church', 'by the robber', and others, are adverbials of location, direction and agent respectively. Fillmore's case grammar captures the fact that prepositions, like verbs, are case markers that assign different roles such as agentive, locative and objective. These inabilities necessitated the study of case grammar. Quain (1986), on his part, opines that case is the form or use of a noun or pronoun to express its relation to the words in the sentence. He goes further to explain that the NOM case usually expresses the relation to the subject; the ACC case usually expresses the relation to the object; and the possessive (POSS) case expresses the relation of possession, source and ownership, among others. To him, a case relationship (Cook, 1979; Bruce, 1975) will be defined with respect to the framework of organisation the whole sentence from the start: that is, the relation between a verb and other components (typically, nouns) of a single proposition. Thus, the notion of case is intended to account for functional, semantic,

deep-structure relationships between the verb and the noun phrases associated with it, that is, a system of grammatical description based on the functional relations that noun groups have to the main verb of a sentence. Nouns and pronouns are, therefore, the case carriers or markers in sentences. As a matter of fact, certain structures or kinds of groupings of verbs and classifications of clause could be stated and interpreted more meaningfully in terms of their semantic roles of their associative arguments.

Motives of case grammar

Case grammar stands out from other recent linguistic theories by the assumption that (a) syntactic functions are concepts of universal grammar derived from deep cases, and (b) deep cases can explain phenomena that are not handled in other theories by syntactic notions. The theory analysis the surface structures by studying the combination of deep cases: A, O, B and INST, among others. Each role is required by a specific verb as observed in (4) and (5) below:

(4)   Godwin (A) gave money (O) to the school (B).

(5)

Godwin	brings	his	son	to	school
Subject	Verb	Object		Locative	
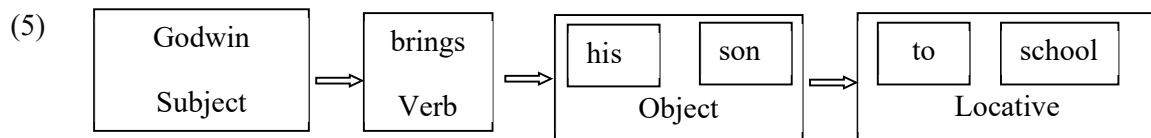
Fillmore (1968) argues that case deserves a place in the base component of the grammar of every language. To him, past researches have not led to valid insights on the study of case relationships; that is, earlier works fail to show the readers the right and wrong ways of using particular case systems as universal models for language structure. Such concepts as subject and direct object are missing because they are regarded as proper nouns only to the surface structure of some languages. There are many semantically relevant syntactic relationships which involve nouns and structures containing them. He refers to this as case relationship, and the grammar proposed and outlined for it is called "case grammar". It is written with a clearer understanding of the difference between deep and surface structures. The sentence in its basic structure consists of a verb and one or more noun phrases, each associated with the verb in a particular case relationship. Even though they can be compound instances of a single case (through NP conjunction), each case relationship occur only once in a simple sentence.

It follows that whenever more than one case form appears in the surface structure of the same sentence (on different NPs), either case involved or the sentence is complex. The theory also explains that the universal of deep structure cases is of a syntactic and merely a morphological nature. The roles the predicate or the verb assigns to the subject or object should be semantically defined, and it the verb that assigns the different roles to the arguments. For example, the subject can be A in (6a), I in (6b), and when both A and I appear in the same sentence, A will appear as the subject, and not I as in (6c), but not grammatical in (6d&e):

(5)   a. Emmanuel broke the window (A).

        b. A hammer (I) broke the window.

        c. John (A) broke the window with a hammer (I).

        d. *John and hammer broke the window.

        e. *A hammer broke the grass with a stone.

It is important for us to remember that only noun phrase only noun phrases representing the same may be conjoined – that is why Sentence (5d) is semantically incorrect, although grammatically correct. Also, Sentence (5e) is not acceptable in that hammer and stone are understood instrumentally. It cannot represent a sentence containing an A and an I since the noun hammer is inanimate.

Universal subject and object selection

Fillmore (1968) puts forward the following hierarchy for his universal subject selection rule:

(6)

Agent ——— Experiencer ——— Instrument ——— Object ——— Locative

(a)   If the case frame of a predicate contains an A, it is realised as the subject of an active sentence. Otherwise, the role or the deep case following A in the hierarchy (i.e. an experiencer) is selected and promoted to the subject. If there is no agentive or experiencer but there is an instrumental, this instrumental becomes the subject. Finally, if there is no agentive, experiencer or instrumental, an objective or locative becomes the subject of the sentence as shown above.

(b)   The general rule, for instance is that if the roles X, Y and Z occur in a sentence, then, the element highest in the hierarchy is realised as the subject in the basic voice of the language.

(c)   Agent phrase must contain the feature of [+ animate].

(d)   For direct object hierarchy, the order is as follows: (1) Objective (2) Locative (3) Experiencer (4) Goal (5) Instrumental, and (6) Agentive.

Selection restriction of the verbs

(a)   The idea behind case grammar is that each verb has a set of named slots that can be filled by other items, typically nouns. Each slot describes the semantic role of its filler with respect to the verb. Verbs can be characterised largely by the slots that they support and select restriction on can fill them.

(b)   The cases of case grammar are deep or semantic cases. Unlike surface level, syntactic cases such as **subject** and **direct object** do not change under grammatical transformation of the verb (for example, from active to passive) shown in Table 1:

Table 1: Surface vs. deep cases

	Surface		Deep	
	boy	ball	boy	ball
The boy hit the ball.	Subject	direct object	agent	object
The ball was hit by the boy.	direct object	subject	agent	object

(c)   Verbs are distinguished from each other not only by specification of case frames into which they can be inserted, but also by their transformation property.

(d)   The verb 'murder', for example, is the one which the element 'A' is obligatorily present in the verb

(e)   The following verbs has the following case frames

    a.   See (A, O)   I see him.

    b.   Die (A)   Olu dies.

c. Kill (A, O, I)   Ebele killed her with a sick.

The interpretation is that the verbs 'see' can be used with an A (agent) and O (object), 'die' with only an A (agent), 'kill' with an A (agent), O (object) and I (instrument).

Types of cases

There are several roles used in discussing cases: agentive, instrumentive, dative, objective, locative, cause, goal, theme and source (Fillmore, 1978; Jackendoff, 1972), among others. The theory gave rules for their combination in defining the used of verb. For example, the agent is grouped with cause, whereas the patient and the experiencer are argument of verbs of position.

(A)   **Agentive:** The causer of the action. The role of agent is to cause the action of the verb. It has some characteristics of action verbs, bringing process about; such verbs always have both an agent and an object. Example: Onugh opened the door.

(B)   **Objective:** It is the most semantically neutral slot, identifying the entity whose position, existence or state under discussion. This term was later termed as **patient** and **goal** referring to the inanimate participant who is directly affected by an action. Every verb (except intransitive) has object. Onugh opened the door. Note that in some cases an A and an O of the verb are coreferential and may be merged in the surface structure. Example: He loves __. He loves himself.

(C)   **Dative:** It is known as recipient, benefactive or experience; it is the role animate participant who is less directly affected by the action or state described by the verb (in contrast to the patient). Example: Philip opened the door for Oma.

(D)   **Instrument:** The relation of the inanimate causer of an action (e.g. The cutlass cuts the tree), or the object or an entity that is used by an A to bring about the action of the verb. Example: Benjamin cut the tree with a cutlass.

(E)   **Locative:** It indicates the exact place or the location where the action of the verb occurs. It is often filled by a reference to a co-ordinate system rather than an explicit object. Example: Ukam put the bottle in the dustin

(F)   **Experiencer:** This is an entity whose mental or emotional state is affected by an action of the verb. Example: Joe showed the group his programme.

(G)   **Beneficiary:** It is an entity that posses an object or participates with an agent in the transfer of an object. Example: Grace brought Patrick some drinks.

The above list is not exhaustible according to (Cook, 1977, p. 299); different lists indicate different ways in which case grammarians may choose to divide the continuum of semantic reality. Correct list of cases and how they should be are of the problems in case grammar.

There are good number of scholarly works carried out by language scholars on case grammar and its applicability in language studies. Apart from an in-depth studies carried out by Gruber (1965) and Fillmore (1968), Moumene (2019) carried out a study entitled *Case grammar and its implication to developing writing skills*. The core of the study was to expose the existing controversy among researchers about the role or function of Traditional Grammar in helping students to overcome their grammatical errors. The findings consequently show the relevance of Fillmore's case grammar to developing writing skills and improving linguistic proficiency. Also discovered is the fact that case grammar also offers innovative insights and strategies to understand, analyze and criticize novels and short stories in an objectively satisfying way.

Another scholar who applied case grammar in his work is Nilsen (1970). He explores the use of case grammar in teaching English as a foreign language. It was revealed that the use of case frames of the verbs as a control for the teaching of vocabulary items has some benefit over and above other concepts. This is because the case frames associated with a particular semantic class would be the same in the native and target language (English). Applying the theory in his study helps students to see how his language is the same as the target language. It also allows the students use conceptual clues in learning new vocabulary items.

In another study, Scott (1999) did a paper entitled *A case for the sentence in reading comprehension*. The paper aims at addressing sentence understanding as a requirement of reading comprehension within the framework of case grammar theory.

Obiamalu (2016), in his Ph.D. dissertation, investigates the notion of 'case' from the traditional grammar to modern grammatical theories. The core of the paper is to critically examine the notion of case within different grammatical framework. However, the crux of the study is mainly on the role of syntax and semantics in case determination, as well as the level of grammatical analysis (deep or surface) at which case is assigned.

Bei-beiye's (2015) study entitled *Case grammar and its application in English vocabulary Teaching* carried highlights that syntactic structure can be predicated by semantic participants. The paper discovers that case grammar is based on semantic-syntactic relationship, showing a link between the numbers of subject, object and a verb as well as the grammatical context they requires.

Lastly, Parunak (1989) did an interesting paper with the title Case *Grammar: A linguistic tool for Engineering Agent-Based.* The paper looks at three agent-based in which ITC has used case grammar as an engineering tool at three different levels. The results show that case grammar provides an interpreting framework for constructing the internal knowledge representation system of a single agent, for domain, and for defining an abstract space within which the behaviour of agents can be described.

Weaknesses of case grammar

1. There is no agreement among case grammarians on the number of cases identifiable in human language and how they should be defined. For example, Anderson (1971) lists out four cases, Fillmore (1968) lists six cases, Chafe (1970) lists seven cases, among others.
2. Case grammar is theoretically inadequate in that it assumes the verb to be deep structure category, and also associates cases are names for semantic-syntactic categories with NP and not with the surface.
3. Case grammar could not account for certain NPs associated with the verbs. Fillmore himself notes that his grammar could not adequately account for the so called "cognate" NPs (objects that are etymologically related to the verb).
4. The determination by preposition is misleading because cases abound in languages where the same preposition marks different cases or where the same case role is signalled by different prepositions.

Conclusion

The theory of case grammar is capable of reflecting the inseparability of syntax and semantics at the deep structure level.

References

Agbedo, C.U. (2015). *General Linguistics: Historical and Contemporary Perspectives*. Nsukka ACE Resource Konsult.

Anderson, J.M. (1971). *The Grammatical Case: Towards a Localistic Theory.* Cambridge: Cambridge University Press.

Bei-Beiye (2015)'Case Grammar and its Application in English vocabulary teaching In international conference in Applied social Research.

Chafe, W.L. (1970). *Meaning and Structure of Language.* Chicago: The University of Chicago Press.

Chomsky, N. (1965). *Aspects of the Theory of Syntax.* Cambridge: MIT press.

Chomsky, N. (1981). *Lecture on Government and Binding.* Dordrecht: Foris.

Cook, W.A. (1972) A Case Grammar Matrix. Language and *Linguistics*: Working Paper No 6, pp. 15-45.

Crystal, D. (1971). *Linguistics 2ⁿᵈ Edition.* Harmondsworth: Penguin.

Fillmore, C.J. (1968). A Case for Case. In *Universals in Linguistic Theory,* E. Bach and R. Harms (Ed), *Universals in Linguistic Theory (1-8),* New York: Holt Rinehart and Winston.

Gruber, J.S. (1965). *Studies in Lexical Relations.* A PhD Thesis submitted to Massachusetts Institute of Technology.

Moumene, A. (2019). Case Grammar and its Implication to Developing Writing Skills. Retrieved from https:www.researchgate.net/publication/305882569 on 21/06/2019.

Nilsen, D. (1970). Some Notes on Case Grammar in English. Retrieved from https:www.researchgate.net/publication on 20/06/2019.

Nordquist (1990). Defination and Examples of Case Grammar. *Glossary of Grammatical and Rhetorical Terms.* Retrieved from www.thoughtco.com/case-grammar on 26/06/2019.

Obiamalu, G.O. (2016). The Notion of 'Case' from Traditional Grammar to Modern Grammatical Theories: A Critical Historical Review. *Journal of Advances in Linguistics,* Vol. 7, No. 1, pp. 1124-1134. Retrieved from https:www.researchgate.net/publication/305882569 on 21/06/2019.

Parunak, V. (1989). *Case Grammar: A Linguistic Tool for Engineering Agent-Based Systems.* Retrieved from https://pdf.semanticscholar.org on 20/06/2019.