DOCUMENT RESUME

ED 086 029 FL 004 957

AUTHOR Nuessel, Frank H., Jr.
TITLE Sentential Complementation--An Overview.
PUB DATE 22 Mar 73
NOTE 17p.; Paper presented at the University of Utah, Salt Lake City, March 22, 1973

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Adjectives; Adverbs; *Form Classes (Languages); Generative Grammar; Language Universals; Linguistic Theory; Logic; Morphology (Languages); Nominals; Phrase Structure; Semantics; *Sentence Structure; *Surface Structure; *Syntax; Transformations (Language); *Verbs

ABSTRACT

A review of traditional and transformational studies on the phenomenon of sentential complementation (noun clauses) reveals many areas of agreement. Although some adherents of generative grammar may have occasionally obscured this aspect because of the offensive nature of their criticism of other modes of analysis, it is seen that, in several cases, more recent research is merely an extension of notions already existent in the traditional framework. Some recent additions to knowledge of complement structures in the domain of semantics and logic are also surveyed. (Author)

SENTENTIAL COMPLEMENTATION--AN OVERVIEW

by
FRANK H. NUESSEL, JR.

Paper presented at the
University of Utah
Salt Lake City
March 22, 1973

SENTENTIAL COMPLEMENTATION--AN OVERVIEW

FRANK H. NUESSEL, JR.

A. Previous Studies.

A review of traditional and transformational studies on the phenomenon of sentential complementation reveals many areas of agreement. Although some adherents of generative grammar may have occasionally obscured this aspect because of the offensive nature of their criticism of other modes of analysis, it is seen that in several cases, more recent research is merely an extension of notions already existent in the traditional framework. Some recent additions to knowledge of complement structures in the domain of semantics and logic are surveyed.

1. Definition of a Complement.

A survey of traditional attempts at a formal description of a complement shows a very general concept. It is similar to that found in Webster's Third International Dictionary (464) where it is described as "something which fills up or completes." Gili y Gaya,[1] for example, says of complements that "acompañan al verbo otras palabras que por completar todo lo que deseamos decir del sujeto se llaman complementos. . . Desempeñan el papel de complementos todos los elementos que se hallan en el predicado fuera del verbo."

Complements are usually categorized into one of the following three form classes: noun, adjective or adverb, each of which may be phrasal or sentential. The primary concern of the present study are those complements which are sentential in form or in origin and nominal in function. Traditional grammarians refer to them as noun clauses while more recent studies call them sentential complements.

2. The Traditional Approach as Viewed by Transformationalists.

Because traditional grammars treat syntax in terms of surface structure (their grammatical structure), they appear to conceal the underlying unified process of complementation. In fact, some generative grammarians claim that this apparent treatment of morphologically distinct forms as syntactically different is a major fault of their predecessors.[2] A related critique is that the aforementioned is due to the traditional grammarian's failure to recognize a more abstract level of syntactic structure.

A careful analysis and interpretation of the grammatical explanations of the traditionalists demonstrate that such criticism is too strong. While it is true that pre-transformational studies tend to be diffuse because of the morphological classificatory procedures employed, this fails to invalidate their perceptive examination of many syntactic questions. The difference in perspective between the two approaches results in part from the fact that morphology is central in the traditional approach, while syntax is central in transformational grammar. The separate treatment given various manifestations of the sentential complement such as the noun clause and the infinitive

may be a less economical way of dealing with a single phenomenon. Nevertheless, it fails to affect the accuracy of their grammatical observations. It can easily be demonstrated that these two distinct syntactic elements share many of the same features including distributional patterns. While the infinitive was somewhat of an enigmatic form in earlier studies because of its shared nominal and verbal properties, in at least one traditional study it was seen to be sententially derived. Bello (114), referring to the infinitive, notes that "la proposición trasformada así deja de serlo en cuanto pierde su relación de tiempo con el acto de la palabra, como es propio de todas las proposiciones en castellano."

In essence, Bello is claiming that the infinitive is a derivative form because it has lost its clausal status. This is equivalent to Ross's notion of tree-pruning[3] whereby a non-branching sentence (henceforth S) node is deleted. In this case, the result is that a verb phrase (henceforth VP) node is immediately dominated by a noun phrase (henceforth NP) node in underlying structure, which would explain the shared verbal-nominal features of the infinitive.

The criticism that traditional grammarians recognize no abstract level of syntax is unjustified. They were aware of two levels of sentence structure. They speak of a grammatical structure (= surface structure) and a logical structure (= remote structure). Lenz's (389) discussion of an aspect of the infinitive provides an example of this awareness of a deeper level of grammar. With regard to sentence 1(a)

1 (a) Vi al niño salir de la casa.
(b) Vi (al niño salir de la casa).
(c) Vi (al niño) (salir de la casa).

he notes that "el acusativo de persona sólo lógicamente, pero no gramaticalmente, es el sujeto del infinitivo, que es un segundo acusativo del verbo dominante." Thus, Lenz intuitively feels that sentence (a) has a remote structure similar to that of (b) but a derived or surface structure equivalent to (c).

3. Similarities in the Two Approaches.

The respective positions of traditional and transformational analyses of sentential complementation are not as distinct as some more recent studies would make it appear. The seeds of many of the current notions about complements are to be found in the work of the former. In fact, Chomsky[4] has even said that "it would not be inaccurate to regard the transformational model as a formalization of features implicit in traditional grammars, and to regard these grammars as inexplicit transformational generative grammars." In what follows, the similarities between the two approaches will be pointed out. Later, the nature of the contributions of the latter to existent research will be reviewed.

A consideration of the notion of sentential complement entails a discussion of the two related grammatical concepts of meaning class and government. Because of their close interrelationship, it is difficult to consider them separately. The idea of meaning class is found in traditional grammars where a basic feature of a particular class of verbs is abstracted and used as a general descriptive label, e.g., verbs of perception,

verbs of command, etc. Frequently, a list of the common verbs which each class contains is included. More specifically, this concept refers to the members of a coherent semantic category of predicates which govern the application of certain syntactic rules. Robin Lakoff was the first transformational grammarian to formally define the term and point out its relevance to complement structures. She said (ASLC, 165) that "we define a meaning-class in terms of both syntax and semantics as a set of semantic markers that can function in syntactic rules."[5]

Related to the aforementioned is the traditional grammatical concept of government which Seco (138)[6] defines as

> La relación de dependencia que existe entre ambas palabras se orientaba desde un punto de visita opuesto (régimen). Había en la oración ciertas palabras dominantes (regentes) de las cuales dependían otras subordinadas a ellas (regidas). Hoy entendemos que las palabras van determinándose y completándose mutuamente para formar un conjunto comprensible, y en este sentido las unas son complementos de las otras.

G. Lakoff[7] reviewed the notion of government in transformational grammar. His claim was that the predicate of the matrix sentence determined the application of certain rules of grammar. It was Green[8] who gave the concept a more precise definition when she said "a lexical item may be said to govern a rule when the statement of that rule requires reference (either overtly or by redundancy rule) to a semantic class that contains that item." She further noted in her thesis (74) that the above definition will "distinguish rules which mention semantically defined units as well as syntactic categories (governed rules) from rules which mention exclusively

syntactic categories (ungoverned rules)."

Besides these two general grammatical ideas, traditional grammarians made some specific syntactic observations on the process known as sentential complementation. In what follows, some of these points will be examined in order to indicate their relationship to later studies.

Traditional studies were aware that sentences may function as nouns or oraciones substantivas since they may be the subject of a verb (Gili y Gaya, 287)

2. No conviene que hablemos.

or object of a verb (Gili y Gaya, 288),

3. Don Fernando dijo que . . . , no prodríamos entendernos.

The assignment of nominal status to a sentence because of its grammatical function closely corresponds to the generative approach in which a sentential complement is said to be dominated by the abstract category label NP which is another way of stating that it functions as a noun. Recent research has also developed an explicit format for indicating this function graphically by the use of labeled bracketing or branching tree structures.

Non-generative studies show that a noun clause is a form of subordination since, as Gili y Gaya (285) notes "se halla incorporada a la (oración) principal. . ." Seco (232) makes a similar claim for the infinitive because "es necesario que consideremos el infinitivo como constituyendo una oración subordinada."

This reflects the transformational explanation of the phenomenon in which an initial occurrence of a sentence may

be expanded as in the following phrase-structure (henceforth P-S) rule

4. S → NP VP.

In turn, the NP node may be optionally expanded as an S with the result that a complement sentence is always dominated by a higher sentence.

Reference to grammatical rules which affect the form of the noun clause may be gleaned from traditional discussions. Several will be considered in the following section. Sentences 5 and 6, taken from the RAE (404), each contain an infinitive.

5. Quisiera arrancar del pecho
pedazos del corazón.

6. Te prohibo salir.

The Academy (404) suggests the following principle for explaining the appearance of the infinitive in the above sentences (presumably this rule to account for similar occurrences) "si el sujeto del infinitivo es a la vez sujeto o complemento del verbo de la oración de que el mismo forma parte, se omite dicho sujeto."

The above rule is equivalent to the transformational rule called Equi-NP Deletion (henceforth END) by which the subject of a complement sentence is deleted under identity with an NP in a higher sentence. The fact that it must be identical to some higher NP in order for deletion to take place refers to the notion of unique recoverability of deletions as discussed by Chomsky (Aspects, 144f.).

In another instance, the RAE (406-407) presents another rule of grammar which applies with verbos de percepción.

They cite the following paradigm of semantically equivalent sentences.

7. (a) Te veo venir.
   = (b) Veo que tú vienes.
8. (a) Te oigo cantar.
   = (b) Oigo que tú cantas.

The Academy explains that "en aquéllas el te es complemento directo de veo y oigo, y sujeto a la vez del que afirmamos la significación de los infinitivos venir y cantar, como si fueran complementos predicativos del mismo."

In essence, this passage describes the transformational rule of subject-raising by which a complement subject is moved into the matrix sentence. The fact that the sentences are considered to be semantically equivalent is parallel to the generative notion that a transformation is meaning-preserving (Katz and Postal, 157). The rule itself is governed because its application depends upon the appearance of a specific class of verb in the matrix sentence. The rule is also optional in that its non-application does not produce an ungrammatical string.

The subordinating conjunction que which introduces the noun clause in the following sentence

9. Me dijeron que estaba enfermo. (Gili y Gaya, 271)

is described by Gili y Gaya (272) as "la incolora que, simple nexo copulativo que nada dice sobre la calidad de la relación."

In transformational terms, he is saying that que is a morpheme of no semantic import, inserted into an underlying phrase-marker when a certain structural configuration occurs, i.e., a complement which still has a subject at the point of

application of the rule.

Ellipsis is another traditional grammatical notion in which certain elements of a sentence, although not present in grammatical structure, are understood. As an example of this phenomenon the RAE (344-345) cites sentences 10 and 11 which begin with the subordinating conjunction que.

10. Que sea enhorabuena.
11. ¿ Que qué quiero?

They explain the presence of the que in the above sentences by saying that "Tanto en las oraciones enunciativas como en las interrogativas de que tratamos, puede omitirse el verbo de la oración principal, y entonces la subordinada comienza con la partícula que, redundante al parecer, cuando en realidad no lo es. . . Este que supone siempre un verbo que fácilmente se sobrentiende. . . ."

The process of ellipsis is another way of expressing the concept of abstract performative verbs as discussed by Austin, Ross and R. Lakoff among others. These predicates never appear in surface structure but have been shown to exist through syntactic traces left in the surface structure.

Thus far it has been demonstrated that many of the transformationalist ideas concerning sentential complementation already exist in germinal form in the work of traditional grammar. These concepts include: two levels of grammar, unique recoverability, optional rule, abstract verb, meaning class, government and subordination. The aforementioned represents a significant area of overlap between the two approaches. Admittedly, generative grammar has added to these already existing seeds, but the evidence shows that the two

methods of analysis are not the polar opposites that some would claim.

4. Contributions of the Transformationalists.

At this point the question arises as to what the contribution of generative grammar is with respect to sentential complements. Besides the general features and goals of transformational grammar mentioned in the Introduction of this study, i.e., an explicit predicative theory about language subject to the criterion of testability (falsifiability), it has made some important advances relative to complement structure. In general, the ideas already existing in traditional studies have been expanded in a more precise and systematic fashion. In addition, it is new viewed as a unified process, recursive in nature and systematic in its operation with various surface manifestations.

For the most part, generative contributions to the area of complement structures consist of analyses of their semantic and logical properties. The latter refers basically to the examination of verb-verb (henceforth V-V) restrictions, i.e., constraints on the nature and the form of the complement verb relative to the meaning of the main verb. Examples of this include: tense selection, subject selection and type of complement verb. In terms of tense selection, certain meaning classes of predicates are highly restrictive in terms of permissible tense in the complement verb. Thus, verbs of command require the tense of the verb in their domain to be posterior to that of the matrix verb. On the other hand, verbs of communication impose no such restrictions. Next, certain verbs seem to

require like subjects in their complement. Sauer (67), based on Perlmutter's research (9 f.), cites a few verbs which impose this constraint in Spanish: tratar, pensar (= intend) and atreverse a. Finally, the type of verb (stative or non-stative)[9] which may be embedded depends to some extent upon the meaning of the higher verb.

Besides the above semantic characteristics, certain logical properties have been studied. The first major work in this field was by the Kiparskys.[10] They examined a class of predicates which they called "factives", whose distinguishing feature is the fact that they presuppose[11] the truth value of the complement sentence. For example, in the following sentences

12. It is odd that it is raining.
13. It is likely that it is raining.
14. It is raining.

It is seen that sentence 12 makes an assertion about its embedded proposition (sentence 14) and also presupposes its truth, while sentence 13 also asserts something about its embedded proposition (sentence 14) but does not presuppose its truth.

In addition to the preceding class of predicates, Karttunen noticed an additional class of verbs which he termed "implicative" and which obey rules of logical inference with respect to the complement sentence which they embed. He cites the example ("Implicative Verbs," p. 341) of

15. John managed to solve the problem.
16. John solved the problem.

If a speaker asserts sentence 15, he then commits himself to the belief that its complement (sentence 16) is true.[12]

B. Working Definition of the Notion "Sentential Complement".

For the purposes of this study, a general working description of a sentential complement in terms of generative grammar is presented. To a large exten draws on previous studies.

A sentential complement is a recursive form of embedding which is the result of the optional expansion of the P-S rule node NP in the base component. It is formally distinguishable from other recursive embedding processes such as relativization and coordination. In addition, it is the most restricted since it may occur only with a limited number of predicate-meaning classes. One or more of these meaning classes may determine the application of certain transformational rules. Besides this, there exist certain V-V restrictions (determined by meaning) which regulate the form of the complement verb. Finally, certain logical properties may be determined by the choice of the matrix verb such as presupposition and inference. Thus, the interaction of syntax and semantics determines the final surface form of the underlying complement sentence.

INDIANA STATE UNIVERSITY
AT TERRE HAUTE

NOTES

1. For additional references and similar definitions see: RAE, Gramática de la lengua española (Madrid: Espasa-Calpe, 1931), pp. 155, 161; Ferdinand Brunot and Charles Bruneau, Précis de grammaire historique de la langue française (France: Masson and Co., 1969), p. 499; Andrés Bello and Rufino J. Cuervo, Gramática de la lengua castellana (Buenos Aires: Ediciones Anaconda, 1941), p. 18; Rafael Seco, Manual de gramática española (Madrid: Aguilar, 1958), p. 138; Marathon Montrose Ramsey, A Textbook of Modern Spanish (New York: Holt, Rinehart and Winston, 1963), p. 554.

2. R. Lakoff, Abstract Syntax and Latin Complementation (Cambridge, Massachusetts: MIT Press, 1968), pp. 73-74 (henceforth ASLC); and Peter S. Rosenbaum, The Grammar of English Predicate Complement Constructions (Cambridge, Mass.: MIT Press, 1967), p. 110.

3. John Robert Ross, Constraints on Variables in Syntax (Bloomington: Indiana University Linguistics Club, 1968), p. 26 defines it as "delete any embedded node S which does not branch (i.e., which does not immediately dominate at least two nodes)."

4. Noam Chomsky, Current Issues in Linguistic Theory (The Hague: Mouton, 1964), p. 16.

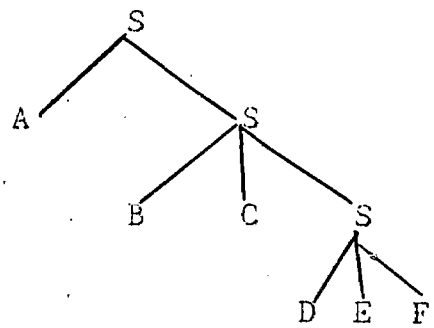
5. She continues her explanation (165) by saying that "not all semantic markers function in syntactic rules. For example, the semantic markers that define verbs of ordering will function syntactically in a redundancy rule specifying that, for this semantic class, one or more of the complementizer-changing rules must apply. On the other hand, for verbs of eating there is no semantic marker that functions syntactically or that distinguishes a rule that applies to verbs of eating from those that apply only to verbs of drinking or verbs of digesting." As Green points out ("A Study in Pre-Lexical Syntax: The Interface of Syntax and Semantics," (Unpublished Ph.D. Dissertation, University of Chicago, 1971), p. 32). the phrase "function in syntactic rules" refers to the notion of government. Karttunen ("The Logic of English Predicate Complement Constructions" (Bloomington: Indiana University Linguistics Club), p. 1), on the other hand, takes the view that "just those verbs which. . .fall into the same class on the basis of some superficial syntactic criteria turn out to be different when the same verbs are grouped on the basis of their semantic properties." This is a somewhat different view from that of the Kiparskys ("Fact") who proposed a relatively close correspondence of syntactic and semantic features of the predicates that they termed "factive."

6. Another general statement on government is in Samuel Gili y Gaya, Curso superior de sintaxis española (Barcelona:

Publicaciones y Ediciones Spes, 1961), pp. 224-225. It is ultimately derived from classical tradition.

7. G. Lakoff, Irregularity in Syntax (New York: Holt, Rinehart and Winston, 1970), pp. 28-29.

8. She also says ("A Study in Pre-Lexical Syntax: The Interface of Syntax and Semantics" (Unpublished Ph.D. Dissertation, University of Chicago, 1971), pp. 72-73) that government refers to cases where application of a rule "depends on the domain being commanded by a particular type of predicate, regardless of whether the type of predicate is specified by redundancy rule." The notion command, Green points out, is a technical one. It was first developed by Ronald Langacker ("Pronominalization and the Chain of Command," in Modern Studies in English, pp. 160-186) and later by Ross (Thesis, 184) who defined it as "node A of a Phrase-Marker commands node B if neither node dominates the other and if node B is dominated by the first node S over A." Thus in the following tree-structure,



B commands C, D, E and F. C commands B, but D, E and F do not command B.

9. G. Lakoff ("Stative Verbs and Adjectives in English," National Science Foundation Report No. 17 (Cambridge, Mass.: Harvard University, 1966), pp. 1-15) noted that predicates could be distinguished on the basis of their participation in certain syntactic constructions. He used this as the basis for designating them as Stative or Non-Stative verbs. These same verbs, he noted, reflect the semantic property of Activity for the latter and Non-Activity for the former.

10. Paul and Carol Kiparsky, "Fact," in Progress in Linguistics, ed. Manfred Bierwisch and Karl Eric Heidolph (The Hague: Mouton, 1970), pp. 143-173.

11. Lauri Karttunen, "The Logic of English Predicate Complement Constructions" (Bloomington: Indiana University Linguistics Club, 1971), p. 3 defines the term presupposition as follows: "P presupposes Q just in case that if P is asserted, denied or questioned then the speaker ought to believe that Q."

12. Lauri Karttunen, "Implicative Verbs," Language, 47 (1971), 357 claims that "an implicative verb. . . carries a presupposition that it represents a necessary and sufficient condition for the truth of its complement sentence."

Bibliography

Bello, Andrés and Rufino J. Cuervo. Gramática de la lengua castellana. Buenos Aires: Ediciones Anaconda, 1941.

Brunot, Ferdinand and Charles Bruneau. Précis de grammaire historique de la langue française. France: Masson and Co., 1969.

Chomsky, Noam. Aspects of the Theory of Syntax. Cambridge, Mass.: MIT Press, 1965.

_____. Current Issues in Linguistic Theory. The Hague: Mouton, 1964.

Gili y Gaya, Samuel. Curso superior de sintaxis española. 8th ed. Barcelona: Publicaciones y Ediciones Spes, S.A., 1961.

Green, Georgia M. "A Study in Pre-Lexical Syntax: The Interface of Syntax and Semantics." Unpublished Ph.D. Dissertation, University of Chicago, 1971.

Karttunen, Lauri. "Implicative Verbs." Language, 47:2 (1971), 340-358.

_____. "The Logic of English Predicate Complement Constructions." Bloomington: Indiana University Linguistics Club, 1971.

Katz, Jerrold J. and Paul M. Postal. An Integrated Theory of Linguistic Descriptions. Cambridge, Mass: MIT Press, 1964.

Kiparsky, Paul and Carol Kiparsky. "Fact". Progress in Linguistics. Edited by Manfred Bierwisch and Karl Erich Heidolph. The Hague: Mouton, 1970.

Lakoff, George. Irregularity in Syntax. New York: Holt, Rinehart and Winston, 1970.

_____. "Stative Adjectives and Verbs in English." National Science Foundation Report No. 17. Cambridge, Mass.: Harvard University, 1966.

Lakoff, Robin T. Abstract Syntax and Latin Complementation. Cambridge, Mass.: MIT Press, 1968.

Langacker, Ronald W. "On Pronominalization and the Chain of Command." Modern Studies in English. Edited by David A. Reibel and Sanford A. Schane. Englewood Cliffs, N.J.: Prentice Hall, 1969.

Lenz, Rodolfo. La oración y sus partes (Estudios de gramática general y castellana). 2nd ed. Madrid: Centro de Estudios Históricos, 1925.

Perlmutter, David M. Deep and Surface Structure Constraints in Syntax. New York: Holt, Rinehart and Winston, 1971.

Ramsey, Marathon Montrose. A Textbook of Modern Spanish. Revised by Robert K. Spaulding. New York: Holt, Rinehart and Winston, 1963.

Real Academia Española. Gramática de la lengua española. Madrid: Espasa-Calpe, 1931.

Reibel, David A., and Sanford A. Schane. Modern Studies in English: Readings in Transformational Grammar. Englewood Cliffs, N.J.: Prentice Hall, 1969.

Rosenbaum, Peter S. The Grammar of English Predicate Complement Constructions. Cambridge, Mass.: MIT Press, 1967.

Ross, John Robert. "Constraints on Variables in Syntax." Bloomington: Indiana University Linguistics Club, 1968.

Sauer, Keith E. "Sentential Complementation in Spanish." Unpublished Ph.D. Dissertation, University of Washington, 1972.

Seco, Rafael. Manual de gramática española. Madrid: Aguilar, 1958.

Webster's Third International Dictionary. Springfield, Mass.: G & C Merriam Co., 1961.