

SOME ASPECTS OF PREDICATE RELATIONS IN COMPLEX
SENTENCES IN THE FIFTEENTH CENTURY ENGLISH

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The aim of this paper will be to state arguments to the effect that semantically interpreted predicates may obligatorily or optionally select complement types as well as a set of transformational rules to map underlying structures into surface realizations. These rules will include, for example, complementizer insertion and those which choose from among the noun phrases under certain specified conditions which will become subject and which object.¹

The association of verbals (verbs, adjectives) with various types of complements seems to be related to the meaning of the matrix predicate.²

A class of verbs which combine with infinitival clauses (e.g. *worte, begynne, stoppe*, etc.) as in examples

- (1) ... þat he cast þys child yn a brennyng hote oue þat was bysyde, and soo stoppyd hym þerin yn hope to haue brent hym to colus (227: 11--13).
(2) ... he begynnyth to know þe good from þe euell (35: 24).

does not very easily permit the sentential complement transformation (*that-clauses*) which is presented by (1a) and (2a) respectively.

- (1a) *he ... stoppyd hym þerin yn hope þat he wold haue brent hym to colus.
(2a) *... he begynnyth þat he knoweth good from þe euell.

¹ The analysis of complement sentences has been based on a collection of homilies written by John Mirk in the XVth-century and representing the West Midland variety of late Middle English.

² We accept the arguments of the part-of-speech identities presented by Lakoff (1970), extended by the proposition of nouns made by Bach (1968), and repeated in Fillmore (1971) that all content words can be inserted as predicates and their realization as nouns, verbs and adjectives is due to the application of rules.

(1a) and (2a) are less grammatical, if at all. At least none similar structures have been found in Mirk's *Festial*.

On the other hand, the infinitivalization rule is inapplicable to a set of such Modern English verbs as for example *hint* or *learn* when it is followed by an object. For example:

(3) *They hinted to be honest.

(4) *She learned the story to be true.

That-clause transformation contrary to the examples in (1) and (2) is operative with these verbs.

(3a) They hinted that they were honest.

(4a) She learned that the story was true.

Despite the considerable formal diversity between the class of verbs permitting the infinitive phrases and those that occur with *that*-clauses discussed in Chomsky (1965) and elaborated in Rosenbaum (1967), a number of verbals may occur with both types of complement structures. The result is sometimes a subtle semantic distinction, sometimes clearer.

Let us consider the following examples:

(5) Now I beleue, Ihesu, pat pou art God and man (18:27).

as the result of the application of "*that*-clause" rule and

(5b) Now beleue Ihesu (pou) forto be God and man.

derived from the underlying structure

(5c) Now beleue [Ihesu (pou) ys God and man]_s

The embedded noun phrase is lifted up into the position of a surface object of the matrix verb. The rule of infinitivalization blocks the operation of the verbal agreement transformation in order to generate the surface form (5b). In this case the infinitive transformation is optional.

Here, however, arises the problem of whether sentence (5b) is a mere paraphrase of (5) or not. More specifically, do (5) and (5b) have the same underlying structure? The two structures in question seem to differ semantically. The former (5) is more of an objective statement whereas (5b) implies simultaneousness and rather existential evaluation of the fact that "Jesus is God and man". Some linguists claim that *beleue* in (5) needs to be regarded as a different lexical entry from *beleue* in (5b), but this assumption does not seem to explain the problem thoroughly and results in a lack of greater generality.

It has been observed by Bolinger (1968), Bresnan (1970), Kiparsky and Kiparsky (1970) that for some classes of verbs there is a difference in meaning associated with the complement type.

J. P. Thorn³ proposed a distinct underlying structure for *that*-clauses from other complement structures, and thus infinitive clauses cannot be paraphra-

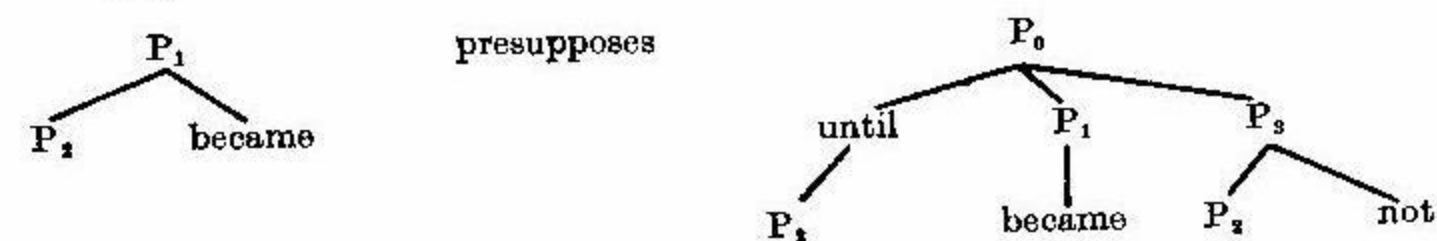
³ Lecture delivered at the Adam Mickiewicz University, Dec. 1973. J. P. Thorn proposes the following underlying structure for *that*-clauses:

sed by *that*-clauses, for their semantic difference reflected in the surface structure goes back to the underlying structure difference, disagreeing in this respect with Chomsky (1971) and his followers, who maintain that syntactically some verbs may be marked to take both complements, but there is nothing in the underlying structure of each sentence which would differentiate it from the other.

Fillmore (1971), on the other hand, claims that "syntactically and semantically different uses of the same word type should be registered in the same lexical entry whenever their differences can be seen as reflecting a general pattern in the lexical structure of the language ... a verb of one type is used as a verb of another type" (1971: 385).

It is worth mentioning, however, that semantic properties of the matrix predicates may select the type of complement structure they can occur with. One of the possibilities to account for this problem is a 'rule feature' (Lakoff 1970) marking verbs in the lexicon either directly or by a redundancy rule for the particular complement structure they can combine with or subcategorization of verbs for the complement types they take. This later specification has eliminated the 'rule feature' as less appropriate in the description of complement grammatical relations (Emonds 1970, Kayne 1969a).

Bresnan (1970) claims that complementizers are not inserted transformationally but already specified in the deep structure, which we cannot agree with in this study, proposing a phrase structure rule, $\bar{S} \rightarrow \text{Comp } S$ in which



The hypothesis consists in postulating distinct underlying structure for two complement sentences in question. On the basis of such tests as the passive transformation which is blocked in the case of *that*-clauses and can operate on infinitives and sentential adverbs (*clearly, probably, certainly, etc.*) that cannot be attached to a *to*-complement but, on the other hand, can occur with *that*-complements. For example:

(1) Professor MacDonald believes Tom to be the best candidate.

T-pass

Tom is believed to be the best candidate.

(2) Professor MacDonald believes that Tom is the best candidate.

T-pass

*Tom is believed that he is the best candidate.

*That Tom is the best candidate is believed.

It was also observed that *that*-clauses combine with the indicative mood whereas infinitives and subjunctives are of the same character.

Comp node dominates complementizers that subcategorize verbs for complement selection. "There is evidence from syntax, semantics and universal grammar that complementizers are far from the semantically empty, syntactically trivial particles they have been assumed to be in most previous generative work" (Bresnan 1970: 300–301). This assumption amounts to the claim that sentences (5) and (5b) are not synonymous and, moreover, infinitival, gerundial and sentential clauses will have different underlying structures. The examples presented (1–5) argue that not all predicates can combine with all complementizers (e.g. *for-to*, *that*, *'s ing*). In fact, the majority can occur with one complementizer and only a small group of verbs appear with more than one, though always with a resultant change of meaning, which in some instances is quite clear, in others, as with the verb *beleue*, very subtle.

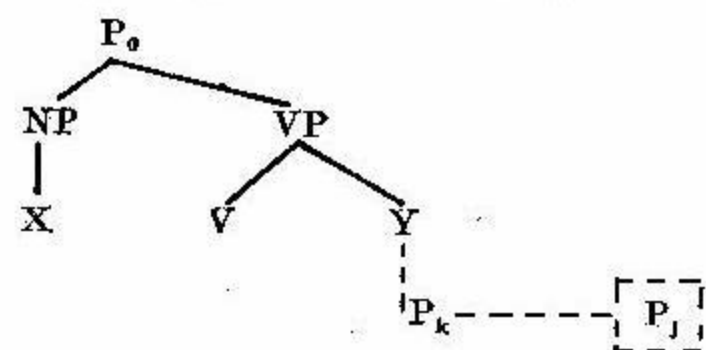
Rivero (1971) has argued that the main verb does not "control the nature of its complement" which is dependent on the semantic factors (presupposition) reflected in the underlying structure of the complement. Thus, the syntactic relations in question must be defined in terms of underlying semantic features.

If the use of two different complements occurring with one verb cannot be explained in terms of two distinct verbs in the underlying structure (being phonologically identical but semantically different), then the possible interpretation assumes that the verb can either be marked for the optional occurrence of two complement structures, and a semantic feature of factivity, for example inserted by the presupposition,⁴ will allow the prediction of the occurrence of a particular complement type in one syntactical realization and the other complement structure will not have this semantic specification for "the only constituents of a clause that contribute to its presupposition are the main verbal and nominals which stand in grammatical relation to it as subject or object" (Langendoen 1971: 57), or the semantic factors of the complement independent

⁴ Several attempts have been made to incorporate the notion of presupposition into linguistic analysis as for example P. Kiparsky and C. Kiparsky (1970), J. L. Morgan (1969).

Presupposition has a definite syntactic structure in semantic theory. The semantic structure of a sentence may be presented in the following formulation:

- a) Lexical items have presupposition ... *know*, *regret*.



Presupposition stays constant under negation. $\sim P_k/P$

of the semantic properties of the matrix verbs will determine its syntactic behaviour (choice of the complement type) in the underlying structure. Whatever the correct analysis is, we are committed to the view that distinct underlying structures of the two sentences under consideration, (5) and (5b) respectively, account for their different syntactic realization on the surface and, consequently, their distinct readings. In this way the requirement that transformations preserve meaning is questioned. There seem to be strong interdependencies between matrix predicates and complements, that is, the semantic properties of lexical items (verbals) reflected in the underlying structure affect the application of certain transformations (e.g. complementizer-insertion) and determine the nature of a complement. The choice of a complement type, then, may be predictable from a number of semantic features and particular classes of predicates will permit the occurrence of appropriate complementizers and, consequently, concomitantly appearing complements.

Apart from the semantic correlations of verbals and their complements, a number of syntactic restrictions are imposed upon the derivation of infinitives by Equi-NP-deletion, subject-raising or marking the subject of the infinitive phrase with the oblique case. In the sentence:

- (6) Hit ys ynpossybull to me to telle þe ioy ⇒ To me to telle þe ioy ys ynpossybull (245:9–11)

the infinitive phrase remains intact and functions as the subject of the predicate *ynpossybull* or it requires splitting of the subject clause, as in the case of *worthy* in

- (7) ... he wer worthy to take hys deth (87:35)

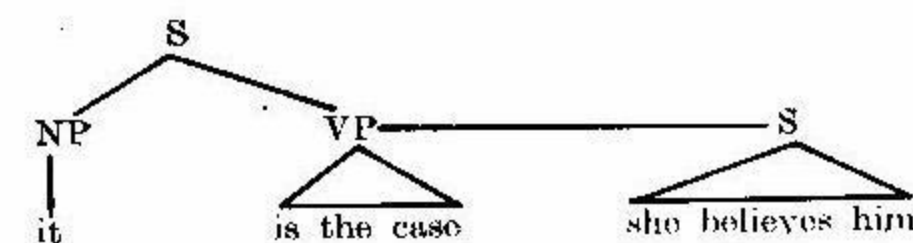
where the subject-raising rule has operated to yield this structure.

Let us examine the following sentence:

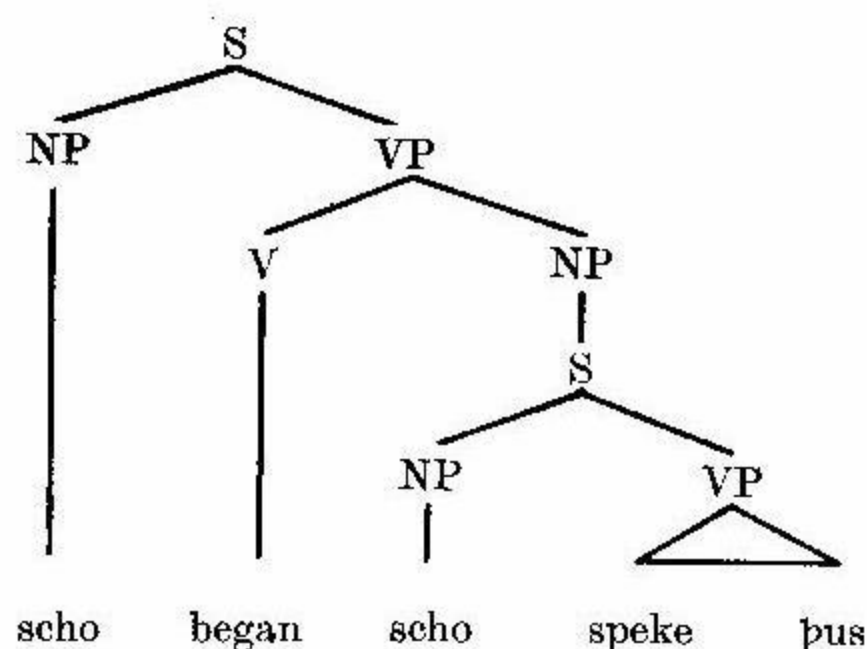
- (8) ... scho began to speke þus (9:27).

The underlying subject noun phrase of the embedded infinitive clause is identical to the subject noun phrase of the matrix sentence. Configuration (8a) accounts for the syntactic form of the example:

- b) Presupposition of complex sentences are the sum of presuppositions of the clauses:



The presupposition of P_k are also presupposed by P_0 .
e.g. Mary knows that Joan regrets that she is leaving Poland.



Subject-raising or more specifically 'raising to subject' plus infinitive formation rules generate a derived structure (8). Once the two noun phrase subjects in question are non-identical at the underlying structure level of the derivation, that is, if we insert, for example, *Ioseph* for *scho* in the embedded subject position, we obtain an ungrammatical sentence.

(8b)* *scho began Ioseph to speke pus.*

The situation is different in sentences (9–12):

(9) ... he prayde his fadyr to put away þe hard payne ... (117: 8–9)

(10) ... he commaundet all cristen men and woymen forto halow þys day
(138: 10–11)

from the underlying forms (9a) and (10b) respectively:

(9a) ...he prayde his fadyr [his fadyr puttyþ away þe hard payne]_S

(10a) ... he commaundet all cristen men and woymen [all cristen men and woymen halow þys day]_S

The subjects concerned are non-identical at the underlying level and conditions for deletion working on coreferentiality of the constituent agent with the matrix dative are satisfied. The verbs in (9) and (10) do not obligatorily require objects, and therefore optional deletion of the second noun phrase (embedded subject) results in a grammatical string.

Compare examples (9, 10) and (11, 12) respectively.

(11) þen þe justice commaundet to put þe sonne yn a fet ... (7:25).

(12) Wherfor Saynt Marke prayde forto amende his schone þat wer torne
(136: 15).

The following sentence (13)

(13) ... God knoweth Saynt Petyr forto be rewþefull ... (286: 33)

apparently seems to be similar to sentences (9) and (10) because of the matrix verbals followed by objects in the surface structure. The underlying insight, however, reveals that deletion of the embedded subject *Sjaynt Petyr* produces a structure not acceptable grammatically.

(13) *... God knoweth forto be rewþefull.

The ungrammaticality of (13) accounts for the claim that the rule which applies here is 'raising to object' confirmed by the possibility of the reflexivization in this position. The embedded subject noun phrase is converted into a relevant reflexive pronoun after 'raising to object' has moved it into a position of object to matrix verb, that is, at the point of the derivation when two identical noun phrases in question fall under the same S-node. This can be pursued according to the analysis:

(14) God knoweth [God be rewþefull]_S

raise to obj.: (14a) God knoweth God [be rewþefull]_{VP}

reflex.: (14b) God knoweth hymselfe [be rewþefull]_{VP}

to-insert

infin.: (14c) God knoweth hymselfe to be rewþefull.

Other examples provide evidence that reflexivization can operate with the verb *knowe* in this position.

(15) *Scho knoweth herselfe to haue repentaunce of hyr mysdedys ...*
(231–9)

(16) ... and makype a man to thynke on hys God and to know hymselfe ...
(115: 30–31)

It must be noted here that not all verbs in the XVth century English combine with the same complement structures and allow the same rules as Modern English verbs do. They exhibit different semantic properties and consequently dominate different featurally specified complements. "If in the course of time a verb comes to be used with a different structure this is invariably due to a change of meaning" (Machaček 1965). This is due to 'subcategorization features' that determine which complementizer is attached to a structure and impose which rules can apply to this structure. They are language specific and can change in time. 'Rule features' are different from 'selectional restrictions' which 'are part of the meaning of a verb' determining, for example, whether a verb can occur with complement subject or object, they are universal, that is, they do not change in time. Presented examples prove that it is only the surface form of a verb that has undergone changes and not its underlying 'abstract properties' (cf. Traugott 1972: 120–21).

Our discussion results in an assumption that there exist restrictions of the matrix verbs which form the condition for the operation of Equi-NP-deletion (erases the constituent subject under identity with either the matrix object or subject), Subject-raising (raises the constituent subject to subject or object position of the matrix verb) and consequently make the infinitive formation transformation dependent upon their application. Thus, accordingly, Equi-NP-deletion is optional with such verbs as *aske*, *beleue*. Structures occurring with these verbs allow optionally the infinitivalization rule, examples (5–5b).

Equi-NP-del. and the infinitive formation rule are obligatory with the verbs *wonte, lyken, allowe*.

It has been observed by Stockwell, Schachter, Partee (1973:555) that "the condition of obligatory Equi-NP-del. depends on embedding of an imperative, since *remind, persuade, warn* and *instruct* take both indicative and imperative embeddings—I reminded him₁ that he₁ was leaving at once—I reminded him to leave at once". This condition, however, refers only to Equi-NP-deletion operating on coreferentiality holding between the constituent agent and matrix dative and not with the coreferential agent, which is the case with such verbs as *try, tend*, also requiring obligatory deletion though they do not seem to take imperative embeddings. Finally, it is inapplicable with the verbs *benke* and *lerne* when followed by an object.

(17) ... he poght forto sese hom wyth won of þes þre wayes (27:15—16)

(18) Wherfor he poght þe more forto sle Cryst... (36:12)

But (17a) *... he poght Seynt Steven forto sese hom ...

Similarly we have

(19) They think that she is clever.

(19a) *They think her to be clever.

On the other hand, 'raising to object' transformation is optional with the majority of verbs and thus accounts for the occurrence of either *to*-clause or *that*-clause constructions. The rule is obligatory with the verb *consider*, which does not combine with a *that*-clause. For example:

(20) *He considers that she is intelligent.

(20a) He considers her to be intelligent.

(Stockwell 1973:556)

'Raising to subject' is obligatory with *semen, begynne*, optional with *certeyne, vnlykly* etc. For example:

(21) ... þys begger began to halson hym so heyly and horrybly
(104:10—11).

(22) þe cyte of Ierusalem ... ys vnlykly forto haue ben wonon ... (140:28)

(23) ... I am redy alway to geue mercy to all hom þat wyll mekely aske
mercy (92: 6—7).

(24) ... þay wer redy to wasch þe sonne poght... (85:19)

There has always been a serious claim in transformational generative grammar for stating arguments that many syntactic problems reveal a strong relationship with semantics, and it has always been difficult to elucidate it clearly. And since "It has become apparent that the verb is the principal variable in sentences upon which the syntactic form of the sentence depends" (Gruber 1965:2), one can assume that the selection of complement structures (infinitives, gerunds, *that*-clauses) is dependent upon the kind of the predicate they can occur with. Karttunen (1970b) and (1971) attempted to distinguish classes of verbs on pa-

rameters of their semantic properties that take complement sentences.⁵ These are, for example, such verbs as:

"factive verbs (realize)

counter-factive verbs (pretend)

implicative verbs (manage)

negative implicative verbs (fail)

only-if verbs (be able)

if-verbs (force)

negative if verbs (prevent)"

(Karttunen 1970b:337)

Structures underlying the final syntactical form of complements must be semantically interpreted, that is, semantic properties of predicates determine the syntactic form of nominalizations, more specifically, some transformations are governed by semantic features, and thus affect the meaning of the surface complement type realizations.

The authors of "Fact" hypothesized that "presupposition of complements is reflected in their syntactic deep structure", which according to the analysis presented is susceptible to the occurrence of the factive predicates in the matrix sentence. Factive and non-factive predicates take their complement structures, that is, nominalizations, in different syntactical forms. The former occur with the gerundive constructions whereas the latter with the infinitive, and thus they can appear in complementary distribution. One must be aware of the fact, however, that there exist predicates which occur with both kinds of nominalizations and hence will not have the specification for factivity in the lexicon in the case of a *to*-complement, as in the examples:

(25) He remembered that he closed the door.

is factive while

(26) He remembered to close the door.

is not, as is demonstrated by the negative versions of these sentences. Underlying structural difference posited for the complements reflect the semantic consequence of the predicates under consideration.

The syntactic-semantic correspondence at the underlying structure level accounts for a different attitude towards the system of complementation. Infinitives, gerunds and *that*-clauses have been assigned a common underlying structure being only distinct on the surface level as a result of the 'complementizer placement' transformation and accordingly assumed semantically equivalent (Rosenbaum 1967; Katz and Postal 1964).

⁵ Karttunen (1970b) assumes that the crucial assumption for the classification proposed is that "there is a distinction between the semantic representation of a sentence which consists of a proposition and a number of presuppositions, and the set of implications that are derivable from it by general rules of inference", which are aspects of general semantic theory.

In conclusion let us point out again that the interaction of the semantic and syntactic aspects in the linguistic analysis forms a different approach in the study of complementation. Syntactic consequences of semantically interpreted structures argue against the analysis presented in Rosenbaum (1967) that transformations do not change meaning and sentences receive semantic interpretation at the level of deep structure. Supporting the hypothesis that the complementizing morphemes (*that, for-to, poss-ing*) affect the semantic interpretation of the complement system and therefore must necessarily be distinguished by different underlying structure configurations we add to the theory of complementation an aspect of some regularity and certain amount of predictability.

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