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Word Order and (No) Semantic Roles

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Introduction

Typological studies generally make a distinction between languages with (relatively) "free" and others with (relatively) "rigid" word order, the term "rigid" meaning that the order of "semantic roles", like agent and patient, in a clause is always the same. Thus, it is suggested that some languages use morphology to mark semantic roles, while others use word order for the same purpose (cf. Givón 1984: 135; ch. 6). What I want to do now is to challenge the assumption that languages must have some kind of system for marking semantic roles; this will be done on the basis of Dutch, a language lacking a morphological case marking system for nouns.

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Word order in Dutch

Especially under the influence of the Prague School, linguists have demonstrated that word order is also related to the distribution of discourse functions; roughly, it is stated that so-called old information generally precedes new information. But this insight did not lead to the abandonment of the idea that order somehow also indicated semantic roles. As a result, the present standard description of word order in Dutch in effect comes down to the idea that it serves a mixture of completely different functions (ANS 1984; cf. Verhagen 1987).

In Verhagen (1986) an attempt is made to formulate the function of word order in Dutch in a way that allows for a generalization over the observations both on the order of semantic roles and on the order of old and new information. The basic idea is as follows.

When a sentence element X precedes an element Y, the listener or reader forms some idea about what X means in the context of the present discourse independently of what Y means. The main part of the analysis in Verhagen (1986) is concerned with the elaboration of this idea with respect to the order of adverbials, and the interpretation of the comment of a sentence. But here I want to concentrate on the role of word order in the interpretation of NPs. Consider (1) and (2).

- (1) Toen bekroop haar de angst voor armoede Then crept-over her the fear for poverty 'Then she was seized with the fear of poverty'
- (2) Toen bekroop de angst voor armoede haar Then crept-over the fear for poverty her 'Then the fear of poverty crept over her'

The interpretation of (2) is special, in that the fear of poverty is "personified" and the sentence suggests that it literally creeps over her. In terms of the function of word order, the point in (2) is that fear, something experienced by a human being, is to be perceived independently of the person experiencing it; hence the suggestion of personification.

Now the traditional generalization about rigidity of word order in Dutch is that in transitive clauses — with the subject indicating the agent and the object the patient — the subject precedes the object. But the examples in (1) and (2) illustrate that this is not really a rule of Dutch. This is especially clear in sentences referring to processes in which the agent is not a concrete entity, but an emotion or an experience (cf. Nieuwborg 1968: 116–118, 217) of the (generally human) object; some of these are usually labelled "direct" ((1) and (2)), others "indirect" object, 1 as in (3):

(3) Toen is de ambassadeur [IO] een zelfde ongeluk [SU] overkomen Then is the ambassador a same accident befallen 'Then the ambassador was hit by a similar accident'

Examples like these clearly present a problem for the idea that order marks semantic roles: it looks as if the order of NPs does not affect the interpretation of agent and patient. The traditional answer to this problem is that the roles are differentiated on other grounds, so that the order no longer needs to be rigid: the object role in (1) and (2) can be recognized by the form of the pronoun, and in (3) the NPs differ in animateness, which allows for a "correct" distribution of roles, given the meaning of the verb *overkomen* ('to befall'). Without such differences the order would be fixed. But the theory of "independent perceivability" seems to imply that such cases like (4) are ambiguous with respect to the interpretation of roles.

(4) Kennelijk bevallen de docenten de studenten tegenwoording minder Apparently please the teachers the students nowadays less

The question is: is (4) ambiguous with respect to the question who pleases whom, or is it unambiguous, with the first NP (the teachers) indicating the pleasers? Originally, I thought that such clauses were unambiguous, and I tried to explain this in terms of the assumed function of word order. It is clear that in this way an indirect relation between order and the interpretation of roles is maintained. However, it has become increasingly unclear whether the original observation is in fact correct. Some informants do find (4) ambiguous, and several others are uncertain about its meaning; some informants who originally found (4) and similar sentences unambiguous, later were uncertain. It seems then that there is a third possibility with respect to the status of such sentences: in a social perspective, there is just uncertainty about their interpretation. What this suggests is that sentences of this type do not play an important role in the linguistic experience of speakers and that they do not constitute a (qualitatively or quantitatively) important part of coherent texts.

This idea leads to an examination of Hermans 1951, a short story of over 2000 clauses. As it appears, at most² 50 of them contain more than one "full" NP (as subject and (direct or indirect) object); i.e. in at most 2.5% of the clauses more than one participant is indicated by means of something else than a personal pronoun. More detailed examination of these 50 clauses shows that in virtually all cases the NPs differ in one or more respects which are sufficient for understanding which participant 'does something to' another. Firstly, in 31 of these clauses one participant is animate and the other is not; in 3 of these it is the animate participant which is the object, and these clauses have predicates of precisely the kind referring to emotions or experiences. For example:

(5) Dat kon de officieren weinig schelen That could the officers little matter 'That did not matter much to the officers'

Secondly, in the remaining cases (at most 19, cf. note 2), both NPs indicate inanimate participants. So examples like (4), with two animate NPs, simply do not occur in the text.

As to the 19 clauses with two inanimate NPs, it is again clear in almost every case that the meaning of lexical and/or grammatical elements is sufficient to allow for a "correct" interpretation. For example:

(6) Twee bronzen hydra's hielden hun koppen over de rand

'Two bronze Hydras kept their heads over the edge'

(7) Een ontploffing had het glas uit deuren en vensters gedrukt

'An explosion had pressed the glass out of doors and windows'

The relation of (inalienable) possession indicated by *hun* ('their') in (6) makes it clear what kind of relation holds between the participants; for (7), knowledge of explosions, of glass in doors and windows, and knowing what the verb means is more than sufficient to establish what causes what. In short: there is no need to appeal to word order in order to establish what relations hold between NPs in a clause. In fact, there is only one clause in this text in which this is not evident from its elements:

(8) Het uiterlijk kan het geheugen niet bijhouden The appearance can the memory not keep-up-with

Actually, the meaning of (8) is not really clear, if taken in isolation; the fact that the words occur in this order and not in another one, does not make it any more interpretable. Only in view of the context it is clear what reading fits: a soldier has just taken a bath after a long time, and now that his face is clean, he expects to see in the mirror the signs of

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everything he has been through; but he sees nothing. Hence: "Appearance cannot keep up with memory", the face does not contain the same as memory.

This does not mean that word order is never important in the interpretation of the text; it is, though in other ways than for finding out role-relations in clauses. Consider (9), (10) and (11).

- (9) Alle burgers was het verblijf in de stad verboden, maar ik kreeg vergunning All citizens was the stay in the town forbidden, but I got permission 'All citizens were forbidden to stay in town, but I got permission'
- (10) Iemand liet door het glas in de buitendeur heen het licht van een elektrische lantaren over de muur glijden
 Someone let the light of an electric torch pass over the wall, through the glass in the front door'
- (11) Een man, de handen in de zij, hield zijn hoofd achterover om naar mij te kijken 'A man, arms akimbo, held his head backwards in order to look at me'

In (9), the front position of the object *alle burgers* evokes the idea of 'all citizens' independently of anything else in the same clause, and through this isolation a strong parallel is created with the next clause, emphasizing the contrast: 'all citizens: forbidden — I: permission'.

What is to be explained about (10) and (11) is that there is an indefinite NP in front. Again, the effect of this position is that the ideas of *someone* and *a man* are to be perceived independently of the contents of the rest of the clauses; in this case (involving animate NPs) this means that more properties of *someone* and *a man* are relevant than the ones mentioned in the clauses themselves, i.e. their identity is relevant, not just their membership of a certain class (cf. Verhagen 1986: 116—140). However, since the NPs are indefinite, it is clear that no other relevant properties have as yet been established; as a consequence, the question of identity is urgent. The order seems to suggest: much more about these participants is relevant, but what? I think that this clarifies something about the function of these clauses in the text.

In the case of (10), the context is that a partisan (it is World War II) has broken into a house, alone. When the door bell rings, he expects one of his fellows at the door. That is the point where (10) occurs. When the partisan then opens the door, a German officer is standing there. Clearly, this property of the man at the door is highly relevant: it changes the course of events in a drastic way. The context of (11) is in fact rather similar. The partisan pretends to own the house. One day he climbs a ladder, to get into a locked room from outside. Suddenly, somebody calls from below. This is where (11) occurs. The partisan comes down, and then a conversation starts in which it is very soon clear for the reader (though not for the partisan himself) that the unknown man is the real owner of the house. Again, this property of this man is highly relevant: it creates a new crisis. So both in (10) and (11), the reader gets a clue about the importance of the identity of the participants through the order of the words. This is different in (12), still from the same set of 50 clauses.

(12) 's Avonds laat kwam een korporaalgeweermaker mij twee nieuwe sleutels brengen 'Late in the evening, a corporal gunsmith came to bring me two new keys'

The identity of the corporal in question is not relevant, only the fact that he is a gunsmith is: he is a soldier who can also make new locks and keys. So it is not surprising that he disappears from the story after a few sentences, unlike the referents of the indefinite NPs in (10) and (11).

Conclusion

Firstly, it appears that word order has no role to play in the interpretation of semantic roles, not even indirectly. Since Dutch has no morphological case marking system, this means that abstract semantic roles do not constitute a grammatical category in Dutch; this in turn implies that they cannot be universal. Secondly, word order is relevant to the interpretation of texts, specifically with respect to the relation between parts of the clause and the context. Though concrete interpretations may differ, depending on other relevant elements, the role of word order as such is a uniform factor.

Notes

- 1 See Verhagen (1986: 235-38) for this distinction, and criticism of it.
- 2 This set includes 4 sentences with predicates containing non-referential NPs as objects (like *eer aandoen*, 'to do credit').
- 3 About 20% contain 1 full NP and 1 personal pronoun, and about 7% 2 pronouns; 64% contain only one participant NP. 6% are non-finite clauses.

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