

The Mismatching Hypothesis and its Relevance for Extraction Phenomena in Dutch

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1. Introduction

Whereas most literature on coordination deals with *and* and *or* in symmetric constructions, Culicover and Jackendoff (1997) discuss a special type of coordination, namely that with a left-subordinating *and* as in (1).

(1) You drink another can of beer and I'm leaving.

They claim that it is syntactically coordinative, but semantically subordinative. The non-coordination-like behaviour of this coordination type, then, would be due to its conceptual structure. Its coordinative properties are thought to be syntactical. The general conclusion they draw from this analysis is that it is possible to separate syntactic conditions from semantic ones on linguistic form. Syntax is thus autonomous, which is one of the general assumptions of generative grammar.

In this article I will show that this hypothesis about possible mismatches between syntactic and semantic representation holds true for some constructions in Dutch as well. Following this Mismatching Hypothesis, it will be demonstrated that those constructions which are exceptional with respect to the traditional coordination-subordination dichotomy are a systematic part of the set of possible constructions in Dutch. Furthermore, the Mismatching Hypothesis will be supported by extraction phenomena. It will be argued that an interplay between syntactic and semantic conditions determines the possible and impossible extractions from symmetric coordination, asymmetric coordination, non-parallel coordination, insubordination and subordination. Semantic conditions do not overrule syntactic ones, which is in accordance with the assumption of an autonomous syntax and an autonomous conceptual level that may not match.

2. Insubordination and non-parallel coordination

Constructions in Dutch that are exceptional with respect to the coordination-subordination dichotomy can roughly be divided into two groups. The first one is the group of subordinations that display coordinative properties. Constructions with comparative *dan* ('than'), (even) *als* ('(just) like'; 'as...as'), *behalve* ('besides'; 'except'), *laat staan* ('let alone'), *in plaats van* ('instead of') etc. belong to this group (see Napoli 1983; Hendriks 1995; Klein 1985; Van der Heijden and Klein 1995). In accordance with the coordinators *en* ('and') and *of* ('or') in symmetric constructions, these conjunction words combine conjuncts of identical syntactic category or case. They allow APs as well as pronouns with nominative case as their complement, which are impossible as complements of subordinators.

- (2) Deze sigaretten zijn duur in plaats van goedkoop.
 these cigarettes are expensive instead of cheap
 'These cigarettes are expensive instead of cheap.'
- (3) *Deze sigaretten zijn goed omdat duur.
 these cigarettes are good because expensive
 'These cigarettes are good because they are expensive.'
- (4) Behalve hij waren er nog tien mensen.
 besides he were there another ten people
 'There were ten more people besides him.'
- (5) *Buiten hij was niemand gekomen.
 except for he was nobody come
 'Except for him nobody had come.'

Following Huybregts and Van Riemsdijk (1985), these constructions will be referred to as *insubordinations*, these conjunction words, consequently, as *insubordinators*.

Those coordinations that do not allow Gapping, Right Node Raising and ATB-extraction, which are supposed to be coordinative phenomena, belong to the other group. Among those are implicative coordinations and so-called *balansschikkingen*. *Balansschikkingen* are characterized by a negative first conjunct and *of* as the conjunction word. Examples of these coordinations are given below.

- (6) Doe dat nog eens en ik zeg nooit meer een woord tegen je.
 do that once more and I say never again a word against you
 'You do that once more and I'll never talk to you again.'
- (7) Nooit komt hij me tegen of hij wil wat geld van me lenen.
 never meets he me or he wants some money from me borrow
 'Every time he meets me, he wants to borrow some money from me.'

Culicover and Jackendoff contend that in coordinations like (1) the left conjunct functions semantically as if it were a subordinate clause. The coordination in (1) can be a paraphrase of the syntactic subordination in (1a).

- (1) a. If you drink another can of beer, I'm leaving.

The asymmetric interpretations of the coordinations in (6) and (7) are illustrated in (6a) and (7a).

- (6) a. Als je dat nog eens doet, zeg ik nooit meer een woord tegen je.
 if you that once more do say I never again a word against you
 'If you do that once more, I'll never talk to you again.'
- (7) a. Als hij me tegenkomt, wil hij wat geld van me lenen.
 if he me meets wants he some money from me borrow
 'Whenever he meets me, he wants to borrow some money from me.'

Following Culicover and Jackendoff, I claim that these coordinations are semantic subordinations and I will refer to them as *non-parallel coordinations*.

In contrast with non-parallel coordination it has been shown in Van der Heijden and Klein (1995) that the interpretation of all insubordinators can be described in logical or set-theoretical terms. In other words, insubordinators express either a conjunctive or a disjunctive meaning. Therefore insubordinations are semantic coordinations and the conjuncts they connect are semantically parallel.

The next question is what syntactic structure is associated with these constructions. If their structure is the same as that of their semantic equivalents, the first conjunct in implicative coordination and *balansschikking* will be syntactically subordinated to the second one. We would expect the subordinated clause to appear either to the right or to the left of the main clause. However, the first conjunct cannot be positioned left to the second conjunct.

- (6) b. Ik zeg nooit meer een woord tegen je als je dat nog eens doet.
 I say never again a word against you if you that once more do
 'I'll never talk to you again, if you'll do that once more.'
- (6) c. *Ik zeg nooit meer een woord tegen je, doe dat nog eens en.
 I say never again a word against you do that once more and

Culicover and Jackendoff also point to the deviant position of the conjunction word if these types of coordinations are treated as syntactic subordinations. *En* in (6c) stands in the right peripheral position of the conjunct, whereas normally conjunction words in English as well as in Dutch appear left peripherally in the conjunct.

Both arguments sustain the view that, although non-parallel coordinations are semantic subordinations, they are syntactic coordinations.

The opposite is true for insubordination. Despite its semantic parallellism, the first conjunct can appear both to the right and to the left of the second conjunct. Apart from (2) and (4), (2a) and (4a) are possible as well.

- (2) a. In plaats van goedkoop zijn deze sigaretten duur.
 instead of cheap are these cigarettes expensive
- (4) a. Er waren nog tien mensen behalve hij.
 there were another ten people besides him

Moreover, the insubordinator appears in the left peripheral position within the conjunct as all conjunction words do. In contrast with non-parallel coordination I consider insubordination to be a syntactic subordination and a semantic coordination.

Both insubordination and non-parallel coordination display mismatches between their syntactic and semantic representation. Both types of constructions are therefore arguments in favour of the Mismatching Hypothesis. Other arguments come from extraction phenomena that will be discussed in the next section.

3. Extraction

3.1 CSC as a semantic condition

Extraction from coordination is subject to the *Coordinate Structure Constraint* (CSC):

In a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct. (Ross 1967:89)

This constraint prohibits the single extraction of *the lute* in (8) (Ross 1967:89).

- (8) *The lute_i which Henry plays t_i and sings madrigals is warped.

Extraction from a coordinate structure is allowed when it is applied in an across-the-board manner, i.e. from all conjuncts simultaneously.

- (9) That is the boy who_i John saw t_i and Bill hit t_i.

It has been noted that despite the CSC, single extraction is possible from coordination, provided that the coordination has an asymmetric interpretation (see Lakoff 1986).¹

- (10) [How many courses]_i can you take t_i for credit and still remain sane?
 (11) This is [the senator]_i that the Mafia pressured t_i and the senate voted for health care reform. (Culicover and Jackendoff 1997:206)

In (10) there is a consecutive sequence of conjuncts, in (11) an implicative one. In (11a) the coordination is symmetrically interpreted and single extraction from it is ruled out.

- (11) a. *This is [the senator]_i that both the Mafia pressured t_i and the senate voted for health care reform.

Data like these have caused the CSC to be considered as a semantic condition. CSC requires ATB-extraction from semantic coordinations and allows single extraction when there is no semantic parallelism between the conjuncts. Extractions from insubordination and non-parallel coordination mentioned above support this view. Insubordinations, which connect semantically parallel elements, allow multiple extractions only. Single extractions from these constructions lead to ungrammaticality.

- (12) Waar_i is hij in plaats van blij t_i mee teleurgesteld t_i over?
 where is he instead of glad about disappointed in
 'What is he disappointed in instead of glad about?'
 (12) a. *Waar_i is hij in plaats van er_i blij mee, teleurgesteld t_i over?
 where is he instead of there glad about disappointed in
 (13) Waar_i is hij behalve blij t_i mee ook teleurgesteld t_i over?
 where is he apart from glad about also disappointed in
 'What is he disappointed in as well as glad about?'
 (13) a. *Waar_i is hij behalve blij er_i mee ook teleurgesteld t_i over?
 where is he apart from glad there about also disappointed in

Non-parallel coordinations, on the other hand, do not connect semantically parallel elements and single extraction from them is possible as the English example in (11) has already shown. (14) demonstrates the same for Dutch.

- (14) Ik weet wat_i je hem t_i niet moet zeggen of hij wordt razend.
 I know what you him not have to say or he gets mad
 'I know what you must not say to him or he will get mad.'

Additional evidence for the position that the CSC is a semantic condition comes from SGF-coordination (*subject gap in finite fronted verb*). Instead of being

considered as the result of a deletion process, this construction can be analysed as a single extraction from the first conjunct, as is illustrated below.²

- (15) Hoe vaak_i heeft hij nou al t_i gezegd op te houden met
 how often has he now already said to stop with
 drinken en is vervolgens doodleuk naar de kroeg gegaan?
 drinking and is subsequently coolly to the pub gone
 ‘How often has he already said he’d stop drinking after which he
 simply went to the pub?’

Sturm (1995) has revealed that SGF-coordinations are not semantically coordinate structures, but that they are bound to a continuative meaning. (16) is an example of a semantic coordination with a subject gap in the second conjunct. Consequently, this example is ungrammatical.

- (16) *Wanneer_i heeft hij t_i gezegd op te houden met drinken en is
 when has he said to stop with drinking and is
 nu even naar de bakker?
 now for a moment to the baker’s
 ‘When did he say he’d stop drinking and he is now to the baker’s for
 a moment?’

We may not conclude from these data that extraction from coordination is conditioned by a semantic constraint only. The following three arguments indicate that some syntactic constraint is involved as well.

First, ATB-extraction from asymmetric coordination is possible, whereas ATB-extraction from non-parallel coordination is out.

- (17) Wat_i gaf ze hem t_i te leen en kreeg ze t_i vervolgens
 what gave she him in loan and got she subsequently
 nooit meer terug?
 never again back
 ‘What did she lend him and never got back again?’
- (18) *Wat_i moet je hem t_i niet geven of je krijgt t_i nooit meer terug?
 what must you him not give or you get never again back
 ‘What shouldn’t you give him or you’ll never get it back again?’

Second, insubordinations do not allow ATB-extraction if there is a sentential complement. In that case, only single extraction from the first conjunct is possible.³

- (19) *Ik weet waar_i hij behalve dat hij blij t_i mee was, ook
 I know where he apart from that he glad about was also
 teleurgesteld t_i over was.
 disappointed in was
 'I know what he was disappointed about apart from the fact that he
 was also glad about it.'

Third, if extraction were subject to a semantic condition only, ATB-extraction should be possible from subordinations that express semantic parallelism, too. *Zonder* ('without') is such a subordinator, whose semantics can be described in logical terms, just like that of the insubordinator *behalve*. The following example, however, demonstrates that ATB-extraction from a construction with *zonder* is ungrammatical.

- (20) *Waar_i heeft Jan zonder dat hij eigenlijk gek t_i op is veel t_i
 where has John without that he actually crazy about is a lot
 van gegeten?
 of eaten
 'What did John eat a lot of although he doesn't like it that much?'

3.2 Syntactic conditions on ATB-extraction

Koster's Bounding Condition (BC) in (21) prohibits extraction from any XP (Koster 1987).

- (21) A dependent element δ cannot be free in:
 ...[β ... δ ...]...
 where β is the minimal X^{\max} containing δ (and the governor of δ)

It predicts the ungrammaticality of extraction from the complement of a subordinating conjunction word as in (20). Although *zonder* combines semantic parallel elements, as insubordinators do, only single extraction from the main clause is possible.

Well-known exceptions to the Bounding Condition are the specifier positions of CP and PP that can serve as escape hatch positions for fronted elements. Single extraction from asymmetric coordination can be accounted for if we accept the specifier position of CoP to be an escape hatch as well. Consequently, extraction from the first conjunct⁴ is allowed, while extraction from the complement position of CoP is not. The next question is then how to justify ATB-extraction, since ATB-extraction includes extraction from the complement position of CoP. We have seen

- (24) Dat boek hier of ik roep mijn broer.
that book here or I call my brother
'Give me that book or I'll call my brother.'
- (25) *Je houdt er nu mee op of (-) krijgt geen toetje.
you stop there now or get no dessert.
'You stop it now or you won't get any dessert.'

(26) Co, conjunction, arg1 [αfeatures]
arg2 [βfeatures]

As said above, insubordinators combine conjuncts of identical syntactic category and the lexical entry in (22) is applicable to them as well. Consequently, ATB-extraction from insubordination leads to a grammatical sentence. Single extraction from insubordinations is prohibited by the CSC ((12a)–(13a)). However, insubordinators do not always combine syntactically parallel elements. In case they have a sentential complement, they act like a subordinator, for only subordinated clauses are allowed as complements of insubordinators, main clauses are not. The lexical entry in (22) does not play a role in those constructions and ATB-extraction cannot be syntactically derived despite the semantic parallelism between the conjuncts. Example (19) above has already proved that.

An overview of this interplay between the BC, the lexical entries in (22) or (26) and the CSC, in case of extraction, is given in table I.

Table 1

	Syntax	Semantics
Symmetric coordination	BC and (22) permit single and ATB-extraction	CSC requires ATB-extraction
Asymmetric coordination	BC and (22) permit single and ATB-extraction	CSC does not apply
Non-parallel coordination	BC and (26) permit single extraction	CSC does not apply
Insubordination	BC and (22) permit single and ATB-extraction	CSC requires ATB-extraction
Subordination	BC permits single extraction	CSC requires ATB-extraction in case of semantic parallellism

This interplay is illustrated on the basis of the examples in section 3.

As shown in this table, a semantic and a syntactic condition determine the possible and impossible extractions from the various constructions. Yet, the semantic condition is not as important as the syntactic one. The ungrammaticality of the following example as opposed to the grammaticality of (17), illustrates that.

- (27) *Wat_i gaf ze hem t_i te leen en kreeg ze het_i vervolgens
 what gave she him in loan and got she it subsequently
 nooit meer terug?
 never again back
 ‘What did she lend him and never got back again?’

Although the CSC does not apply to (27), single extraction is not possible from this asymmetric coordination. ATB-extraction of ‘wat’ in (17) is syntactically derived by the lexical entry in (22). Single extraction from an asymmetric coordination is only allowed if the extracted element is not available in the second conjunct, as in the examples (10) and (15). In those cases extraction from the first conjunct cannot be passed on to the second conjunct.

Also the ungrammaticality of ATB-extraction from a construction with *zonder* in (20) shows that the Bounding Condition cannot be overruled by the CSC. Extraction from the complement of *zonder* is syntactically forbidden and consequently, ATB-extraction is as well. Although semantically parallel elements are combined, the CSC cannot require ATB-extraction. The same is true for *behalve*

and *in plaats van*. If they combine sentences instead of non-sentential conjuncts, then, these insubordinators act like subordinators and ATB-extraction is syntactically out. We can thus conclude that syntax is autonomous with respect to the semantic condition CSC regarding extraction phenomena in Dutch.

5. Conclusion

In this article, I have discussed one semantic property of coordinate structures and two syntactic ones: semantic parallellism, syntactic parallellism and syntactic structure. In section 2 I have shown that with respect to some coordination types these properties do not match. These and other constructions are presented in table II, which lists all logically possible matches and mismatches between these three properties.

Table 2.
a. Coordinative structure; b. Syntactic parallellism; c. Semantic parallellism

	a	b	c
symmetric coordination	+	+	+
asymmetric coordination	+	+	–
non-parallel coordination	+	–	–
coordination without synt. par.	+	–	+
insubordination	–	+	+
subordination with sem. par.	–	–	+
subordination with synt par.	–	+	–
subordination	–	–	–

Construction types in this table that are not discussed in this article are illustrated below.

coordination of syntactically non-parallel conjuncts
(28) Als je naar huis gaat en je komt langs de bakker, ...
if you home go and you pass the baker's, ...
'If you go home and you pass the baker's....'

subordination of syntactically parallel conjuncts
(29) Ik zag de man van mijn buurvrouw.
I saw the husband of my neighbour
'I saw my neighbour's husband.'

Apart from insubordination and non-parallel coordination that are discussed in section 2, table II shows that there are more constructions in Dutch that display mismatches between syntactic and semantic representation. Those are arguments in favour of the Mismatching Hypothesis, whose validity is also proved by coordinations with a left subordinating *and* in English. The relevance of this hypothesis has been proven by extraction phenomena in Dutch. In section 3 and 4 the affection of both syntactic parallelism and semantic parallelism on extraction phenomena has been pointed out. All four possible combinations of the values b and c can have, turned out to determine extraction possibilities and impossibilities in Dutch. In section 4 it was also concluded that the syntactic conditions on extraction are autonomous with respect to the semantic ones which is in line with the fundamental assumption of generative grammar about the autonomy of syntax.

The final conclusion that can be drawn from this analysis is that the traditional coordination-subordination dichotomy is too rough to give a comprehensive account of all Dutch constructions. If we take the Mismatching Hypothesis to be true, Table 2 presents an alternative classification of eight construction types. Constructions that can not be described in the traditional framework other than as exceptions to the dichotomic distinction, are a systematic part of this new classification.

Acknowledgement

I would like to thank Edith Schouten for correcting my English.

Notes

1. There is no consensus as to whether the right conjunct alone or both the right and the left conjunct can be extracted from in English. Williams (1990) claims the former option to be true, Culicover and Jackendoff (1997) the latter.
2. In this view the subject gap is the result of a multiple extraction of that subject. For reasons of clarity, neither this extraction nor that of the verb is presented in example (15). See Van der Heijden (1999) for a discussion of SGF-coordination.
3. The insubordinators *dan* and *als* are exceptions to this.

- (i) Ik weet waar_i hij vaker t_i over heeft nagedacht dan hij t_i over heeft
I know where he more often about has thought than he about has
written
geschreven.
'I know what he thought about more often than he wrote about.'
 - (ii) Ik weet waar_i hij even vaak t_i over heeft nagedacht als hij t_i over heeft
I know where he as often about has thought as he about has
written
geschreven.
'I know what he thought about as often as he wrote about.'
4. I take the following coordinate structure, which Johannessen (1993) proposes, for granted:
[_{CoP} X [_{Co} Co Y]].

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