

Is agreement resolution part of core grammar?

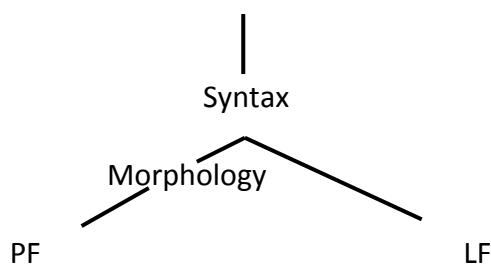
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1. The issue

Subject-verb agreement is obligatory in Dutch:

- (1) a. De man wandelt door het park.
 the man walk.3SG through the park
 b. De mannen wandelen door het park.
 the men walk.PL through the park
 c. *De man wandelen door het park.
 the man walk.PL through the park
 d. *De mannen wandelt door het park.
 the men walk.3SG through the park

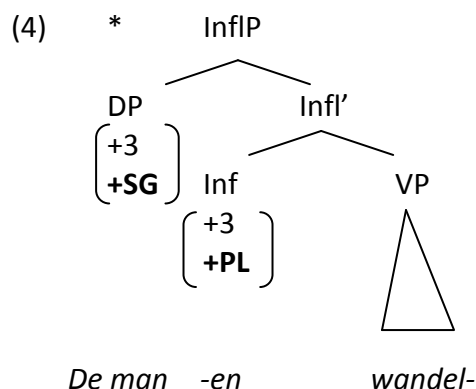
- (2) Lexicon (Chomsky 1995, Halle & Marantz 1993)



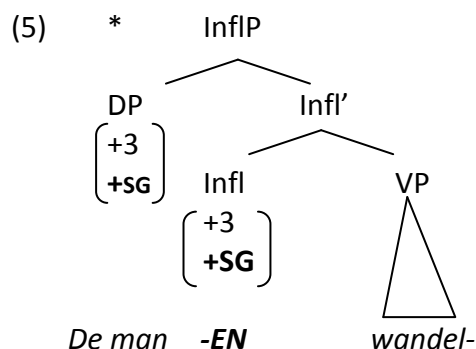
(3)

a.	<i>present tense</i>	b.	<i>past tense</i>	
	SG		SG	
	PL		PL	
1 st	wandel-∅	wandel-en	1 st wandel-de	wandel-den
2 nd	wandel-t	wandel-en	2 nd wandel-de	wandel-den
3 rd	wandel-t	wandel-en	3 rd wandel-de	wandel-den

STANDARD ACCOUNT: lack of syntactic agreement.



ALTERNATIVE ACCOUNT: morphology makes a mistake.



How to decide between these analyses? We must put pressure on the system:

- subjects with a disjunction: [X or Y]
- subjects with a conjunction: [X and Y]

2. Disjoined subjects

- (6) a. [Jan of Piet] wandelt door het park.
Jan or Piet walk.2/3sg through the park
- b. *[Jan of ik] wandel door het park.
Jan or I walk.1sg through the park
- c. *[Jan of ik] wandelt door het park.
Jan or I walk.2/3sg through the park

These constructions are unlikely to be the result of backwards gapping:

- (7) a. Jan ~~wandelt door het park~~ of Piet wandelt door het park.
Jan walks ~~door the park~~ or Piet walks through the park
- b. *Jan ~~wandelt door het park~~ en Piet wandelt door het park.

See De Vries & Heringa (2008) for additional argumentation.

If the ungrammatical cases are out because of a syntactic feature clash, we make the following predictions:

- (8) a. *[1.SG + 2.SG]
b. *[1.SG + 3.SG]
c. *[2.SG + 3.SG]

Contra (8a):

- (9) Wandel jij of ik naar de winkel?
walk you or I to the store

Contra (8b):

- (10) Jij of ik wandelde naar de winkel.
You or I walk.PAST.SG to the store

Contra (8c):

- (11) Jij of Piet wandelt naar de winkel.
you or Piet walks to the store

Two conclusions:

- (i) A syntactic feature clash does not automatically lead to ungrammaticality.
- (ii) The sentence is ungrammatical if the morpheme is not compatible with either of the disjoined subjects in isolation.

These facts can be repeated for the nominal domain:

Attributive adjectival inflection in Dutch

- (i) $-\emptyset \rightarrow$ [indefinite, singular, neuter]
- (ii) $-e \rightarrow$ elsewhere

- | | | | |
|------|----|--|---------------|
| (12) | a. | Een mooi-e tuin of vijver/vijver of tuin | common+common |
| | b. | *Een mooi-e huis of vijver/vijver of huis | common+neuter |
| | c. | Een mooi- \emptyset huis of gazon/gazon of huis | neuter+neuter |
| | d. | *Een mooi- \emptyset huis of vijver/vijver of huis | neuter+common |

THE ISSUE:

How can morphology know if the affix is compatible with both disjoined parts?

- (13) a.
-
- SYNTAX
- MORPHOLOGY

3. Conjoined subjects

Conjoined subjects trigger plural, independent of the number features involved:

- (14) a. Jan en Hans wandelen door het park.
Jan and Hans walk.PL through the park
- b. *Jan en Hans wandelt door het park.
Jan and Hans walk.SG through the park
- c. Jullie en wij wandelen door het park
You and we walk.PL through the park
- d. *Jullie en wij wandelt door het park
You and we walk.SG through the park

Question:

In (14a), there seems to be no syntactic plural feature to trigger plural on the verb.

Possible solution:

Conjunction head *en* is marked for plural.

But:

- This number feature must be stipulated for *en*: *of* lacks a number feature.
- Conjunction *en* and singular on the verb are sometimes possible.

Van Koppen & Rooryck (2006), De Vries & Heringa (2009):

- (15) Organische thee en verrukkelijke koffie wordt/worden geserveerd in de lobby.
 organic tea and delicious coffee is/are served in the lobby

The choice for singular or plural is determined by the collective or distributive reading (Cremers 2001):

- (16) a. Thee en koffie wordt op verschillende plaatsen verkocht.
 tea and coffee are at different locations sold
 'Tea and coffee are sold in different places.'
 b. There are several places that sell both tea and coffee. (collective)
 b'. %Tea is sold in one place, coffee in another. (distributive)
- (17) a. Mijn vriend en collega Jan is vandaag niet op zijn werk
 my friend and colleague Jan is today not at his work
 b. Zijn vrouw en dochter zijn de stad in.
 His wife and daughter are the city in
 'His wife and daughter are into town.'

Generalizing over these data: The interpretation of the subject determines agreement on the verb and the presence of the conjunction head is irrelevant.

THE ISSUE:

How is semantic agreement possible in the "inverted Y-model"? To rule out (14b) as semantically ill-formed, LF has to interpret agreement.

4. Discussion

Two conclusions:

- (18) a. A sentence can be grammatical despite an apparent syntactic feature mismatch.
 b. Feature mismatches do not seem to be repaired by morphology and semantics proper.

Explanation for the ungrammatical examples:

- cannot be syntactic (as syntax allows mismatches).
- cannot be morphological (as it would allow morphology to look long-distance).
- cannot be semantic (as it requires semantics to feed syntax and morphology).

How to proceed?

OPTION 1: The inverted Y-model is wrong.

Although this is not an impossible move (see Jackendoff 2002), it requires (i) way more problematic data (ii) an alternative account for those arguments that speak in favor of the inverted Y-model.

OPTION 2: Enrich the syntax in such a way that feature mismatches no longer cause problems.

Conjunction cases:

Solution: Postulate a plural feature.

Problem: We have seen this is not straightforward.

Disjunction cases:

Solution: Postulate resolution rules (Corbett 1983 and following work).

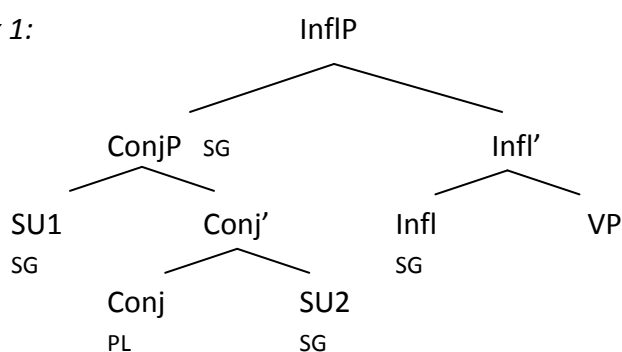
Problem: Resolution rules do not explain the relevance of syncretism for the disjunction cases.

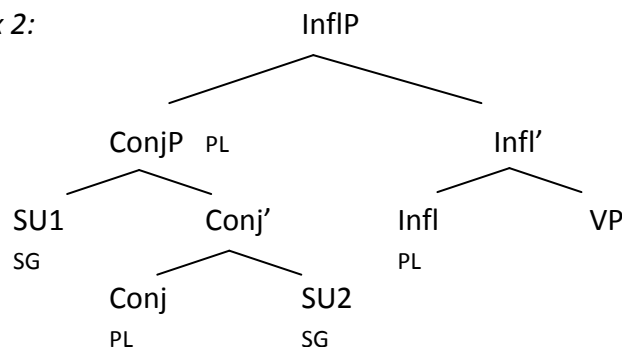
OPTION 3: Filter out the ungrammatical cases at one of the interfaces.

Conjunction cases:

Solution: Let percolation be optional (suggested by Hedde Zeijlstra, p.c.).

(19) *Syntax 1:*



(20) *Syntax 2:*

Semantics: (19) is ungrammatical, since the singular feature on ConjP clashes with the interpretation of the subject as referring to more than one individual.

Problem: Optional percolation is a conjunction-specific solution that offers no account for the disjunction cases with person feature clashes.

- (21) a. *Jan of ik loop/loopt
Jan or I walk.1SG/walk.2/3SG
b. Jij of Jan loopt
you or Jan walk.1SG

Hypothesis 1: Percolated person feature semantically clashes with the interpretation of the DisjP → both should be ungrammatical.

Hypothesis 2: Percolated person feature does not semantically clash with the interpretation of the DisjP → both should be grammatical.

Disjunction cases:

Syncretisms reflect previous neutralization processes (impoverishment) and these resolve the feature clashes.

- (22) a. $-t \rightarrow [-\text{speaker}]$ (23) a. $[\text{speaker}] \rightarrow \emptyset / 2\text{SG, inversion}$
b. $-en \rightarrow [+plural]$ b. $[\text{speaker}] \rightarrow \emptyset / \text{plural}$
c. $-de \rightarrow [+past]$ c. $[\text{speaker}] \rightarrow \emptyset / \text{past}$
d. $-\emptyset \rightarrow \text{elsewhere}$

- (24) a. syntax subject: [2.-pl or 1.-pl] infl: [-pl, -&+speaker, +past]
b. post-syntax subject: [2.-pl or 1.-pl] infl: [-pl, +past]
c. vocab. insertion subject: [jij of ik] infl: -de

Result: Any feature clash in INFL leads to ungrammaticality. Morphology acts locally.

Problem: Impoverishment rules are a disjunction-specific solution that provide no account for the conjunction cases.

- We predict that every feature that is not impoverished leads to ungrammaticality, contrary to fact.

- No neutralization can be motivated, as the morphology (the plural ending) seems more indicative of enrichment than of impoverishment.

OPTION 4: Agreement resolution is not part of core grammar.

Option 4a:

There is a post-grammatical metric that evaluates outputs (optimality tableaux?). Examples with feature clashes are ungrammatical but 'accommodated'.

Option 4b:

Examples with syntactic and/or morphological clashes are not ungrammatical but 'unrealized'.

Barbiers (2006) on verbal cluster consisting of three verbs:

- One order (2-1-3) is excluded by the grammar, the other five are allowed.
- Which one(s) is/are realized in a regional variety is socio-linguistically determined.

Asset:

It helps us to explain the widespread variation in judgments among speakers (Koeleman & Verschoor 2009; Gremann 2009).

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