

Spellout and the Weak, Strong, Mixed Declension in German and Definiteness in Bulgarian

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1. Introduction

- German has the weak (1a), strong (1b) and mixed (1c) adjectival declension.
The determiner marker *-er* can appear either on the definite article (1a) or on the adjective (1b), (1c), but cannot coexist on both (2).

- Generalization

The adjective and the definite article compete for the same marker.

If the marker is not present on the article, it must appear on the adjective.

- (1) a. **der** alte Mann b. **alter** Mann c. ein **alter** Mann
the old man-nom old man-nom an old man-nom
- (2) a. * **der** **alter** Mann b. * **einer** **alter** Mann
the old man-nom an old man-nom

- In Bulgarian, the definite article *-ta* can appear either on the noun (3a) or on the adjective (3b), (3c), but not on more elements at the same time (4).

- Generalization

The noun and the adjective(s) compete for the same marker.

The marker appears on the highest element in DP.

- (3) a. **knigata** b. **interesnata** kniga c. **goljamata** interesna kniga
book-the interesting-the book big-the interesting book
(from Franks 2001)
- (4) a. * **interesnata** **knigata** b.* **goljamata** **interesnata** **knigata**
interesting-the book-the big-the interesting-the book-the

- Proposal

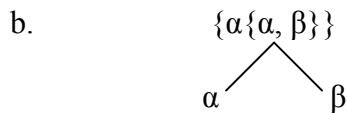
Certain features (in certain languages) can be spelled out only once.

The behavior of DPs in German and Bulgarian can be attributed to the fact that the relevant feature - the gender feature in German DPs and the definiteness feature in Bulgarian DPs - can be spelled out only once.

2. Analysis

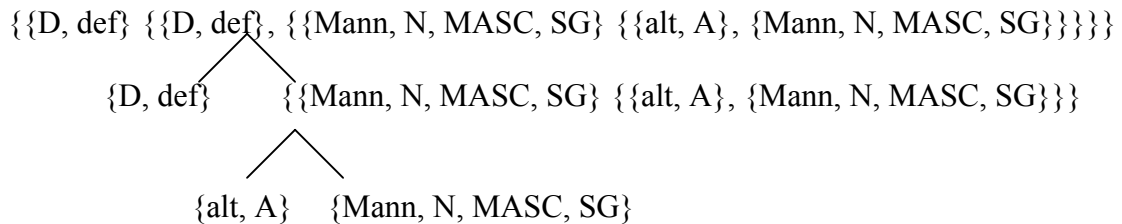
2.1. Gender feature

- (5) a. Chomsky (1995, 243-244):
Merger of α and β forms $\{\gamma\{\alpha, \beta\}\}$, where γ is the label and α and β sets of features.
And the label (head) γ is either α or β .



- Syntactic structure means growth of information.
- Given (5), (1a) looks like (6).

(6) der alte Mann (only relevant features):



This DP gets its case (NOM) in the course of derivation.

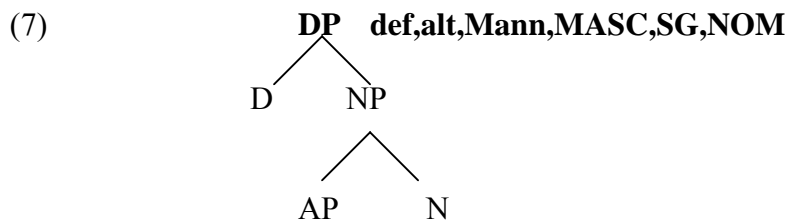
- Competition for a common marker (*-er*) can be analyzed in the spellout of non-terminals approach because the competing elements are dominated by the common node (DP).
For spellout of non-terminal nodes, see Weerman & Evers-Vermeul (2002), Neeleman & Szendrői (2005) or Caha (2006).

- Thus, spellout begins with the DP in (7).

2.1.1. Deleted gender feature

Step 1

No vocabulary item (VI) that can express *def, alt, Mann, MASC, SG, NOM* in the lexicon.

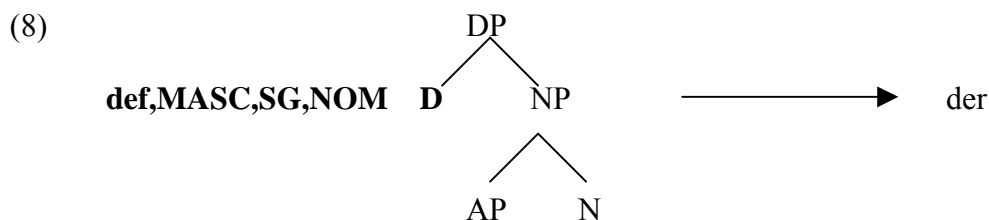


Step 2

Spellout goes down, first to the left to the specifier, as is standardly assumed (e.g. Kayne (1994) or Fukui & Takano (1998)).

D with *def* and the inherited features *MASC, SG, NOM* should be spelled out.

Der is inserted from the lexicon.

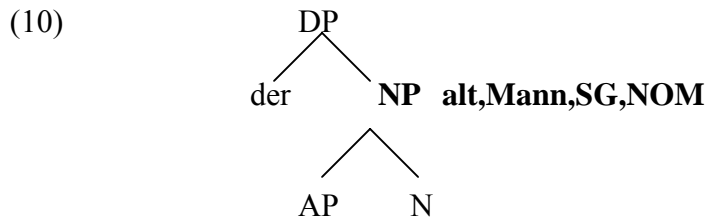


See (9) that the determiner marker *-er* can express case, gender and number:

- (9) (D)er hat Probleme.
(t)he has problems

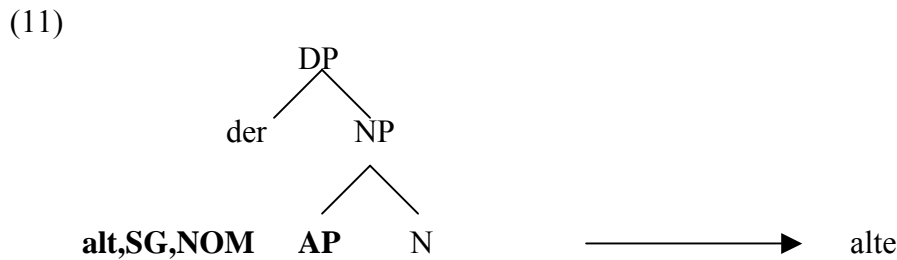
Step 3

Spellout goes to NP with *alt,Mann* and the inherited features *SG,NOM* but there is no VI for this NP in the lexicon. (cf. Schlenker (1997), where, in contrast, features are only transmitted from one head to the next.)



Step 4

Spellout moves to the adjective.



- We get *-e* on the adjective *alt*, not *-er* as on D.
The gender feature is already deleted (after spellout of D); this feature can be spelled out just once in German.
- This is supported by the mixed declension paradigm in (12):
In cases where the determiner marker (13) appears on *(k)ein* (kein=no, ein=a) in (12), the default marker *-en* appears on the adjective (the only exception is NOM/ACC,FEM,SG). And if the determiner marker does not appear on the *(k)ein*, it must appear on the adjective, see NOM,MASC,SG and NOM/ACC,NEUT,SG.

(12) The mixed declension

	MASC		FEM		NEUT		PL	
N	kein	alter	keine	alte	kein	altes	keine	alten
A	keinen	alten	keine	alte	kein	altes	keine	alten
G	keines	alten	keiner	alten	keines	alten	keiner	alten
D	keinem	alten	keiner	alten	keinem	alten	keinen	alten

(13) The determiner marker (common for personal pronouns and determiners)

	MASC	FEM	NEUT	PL
N	er	e	es	e
A	en	e	es	e
G	es	er	es	er
D	em	er	em	en

Given that (*kein*) appears only in singular and only in NOM,MASC and NOM/ACC,NEUT and that *-es* is always common for NOM and ACC in NEUT,SG, the main task of the determiner marker (*-er* or *-es*) on the adjective in NOM,MASC,SG and NOM/ACC,NEUT,SG is to differentiate the masculine gender from the neuter gender.

See also (14) that the determiner marker (*-er, -es*) is used to disambiguate gender.

Du expresses case and number but not gender.

- (14) a. du alt-er
 you old
 b. du arm-es Kind (Schlenker 1997, 12 (18))
 you poor child

- Why *-e* on *alt* in (11), and not the default marker *-en*?

Since *-e* prevents *-en* from appearing in adjectival singular structural case environments (15), with the exception of *-en* in A, MASC,SG.

- This shows that the case and number feature are not deleted after spellout (in contrast to the gender feature).

(15) The weak declension

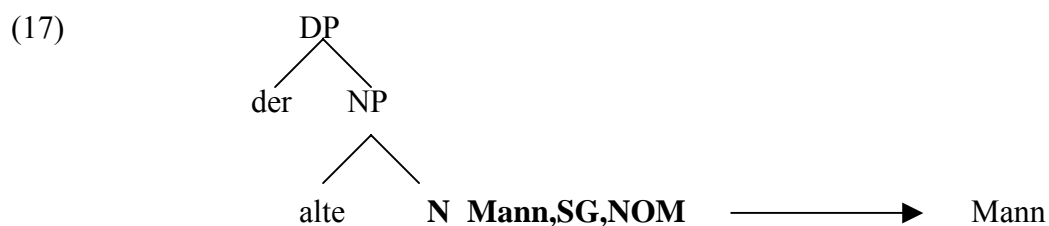
	MASC	FEM	NEUT	PL
N	der alte	die alte	das alte	die alten
A	den alten	die alte	das alte	die alten
G	des alten	der alten	des alten	der alten
D	dem alten	der alten	dem alten	den alten

- That the case and number feature is inherited (not deleted) is also evidenced by the weak nouns (case feature is not intrinsic to the N).

- (16) a. der Bär b. dem Bär-en c. die Bär-en
 the bear-nom the bear-dat the bears-nom

Step 5

Finally, spellout goes to the noun and *Mann* is inserted.



2.1.2. Non-deleted gender feature

- It is not a general rule that the gender feature is spelled out only once.
 In Czech, the gender feature is not deleted from the featural bundle (18).

- (18) a. s t-ou star-ou žen-ou
 with the-instr.fem.sg old-instr.fem.sg woman-instr.fem.sg
 b. s t-ím star-ým muž-em
 with the-instr.masc.sg old-instr.masc.sg man-instr.masc.sg

2.1.3. How deep can the feature transmission be?

- Prediction: one phase because phases are spellout domains.

Test with *tisíc* (thousand), which can be noun or numeral. DPs are phases (Chomsky 2006).

In (19b) *tisíc* has gender and number feature and blocks agreement between the head noun *žen* and the demonstrative *tím*.

The prediction is valid; (19a) is one spellout domain, (19b) two spellout domains (DPs).

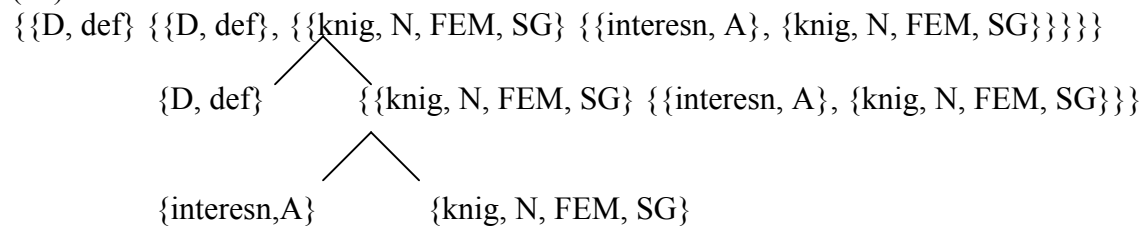
- (19) a. s t-ěmi tisíc-i star-ými žen-ami
 with the-instr.pl thousand-instr old-instr.pl women-instr.fem.pl
- b. s t-ím tisíc-em star-ých žen
 with the-instr.masc.sg thousand-instr.masc.sg old-gen.pl women-gen.fem.pl

2.2. Definiteness feature

2.2.1. Deleted definiteness feature

- Bulgarian example (3b) *interesnata kniga* after narrow syntax:

(20)



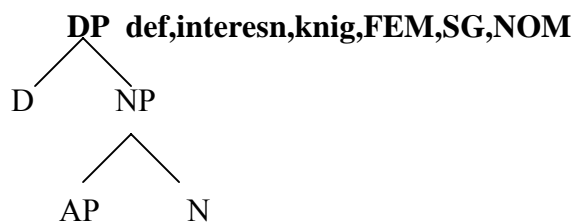
- Spellout of (20):

Step 1

Spellout begins with DP.

There is no VI in the lexicon that can express *def, interesn, knig, FEM, SG, NOM*.

(21)

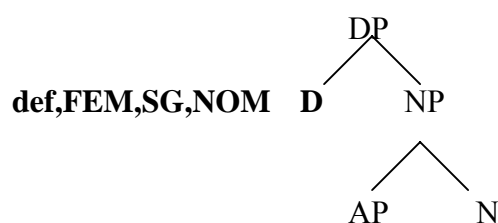


Step 2

Spellout goes down and D with *def* and the inherited features *FEM, SG, NOM* should be spelled out.

But *-ta* cannot be spelled out by itself.

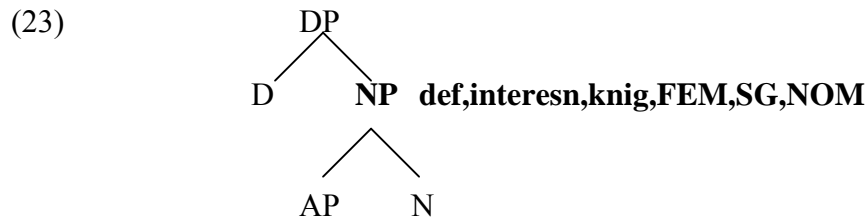
(22)



Step 3

Spellout continues with NP.

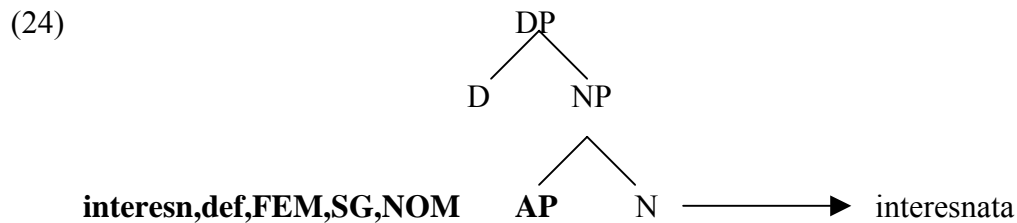
There is no VI for *def, interesn, knig, FEM, SG, NOM* in the lexicon.



Step 4

Spellout goes to the adjective and finds *interesna*, which can host *-ta*.

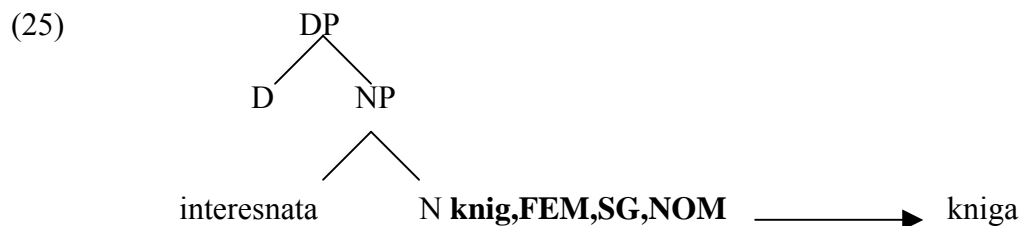
Thus, the definiteness feature is deleted.



That articles wait for their host is supported by the fact that their form is sensitive to phonological properties of the host.

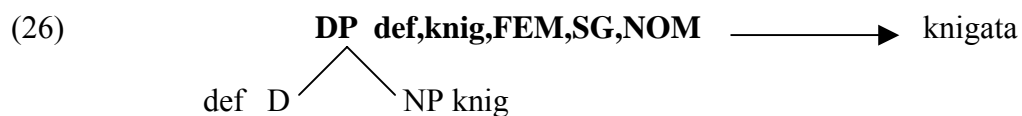
Step 5

Spellout goes to the noun and *kniga* is inserted (not *knigata* because *def* can be spelled out only once).

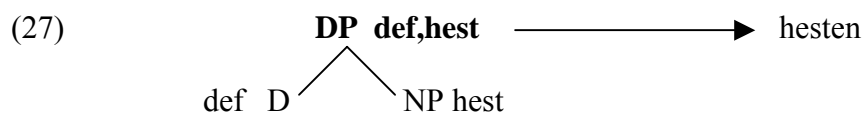


2.2.2. Blocking of more complex spellout

- In example (3a), *knigata* is spellout of the whole DP:



Similarly, in Danish *hesten* (horse-the) is spellout of the whole DP:



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