

Numerals, Grammatical Nouns and the Syntax of NP-Ellipsis

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1. **The empirical problem.** Numerals in Northern Standard Dutch do not bear morphological inflection, whether in attributive use or in NP-ellipsis (NPE, henceforth): compare examples (1a) and (1b). However, a recent survey of 53 Dutch dialects has revealed that in 16/53 dialects numerals in NPE have a schwa, unless an adjective follows (examples (2b) and (2c)). Attributive numerals are always bare (2a).

2. **The core proposal.** In this paper, it is proposed that there is no true ellipsis in the Dutch dialects above. The schwa after numerals in Giethoorn Dutch is a grammatical noun, like English *one* (cf. Emonds 1985, 2000, Panagiotidis 2003a,b). Since nouns in these dialects never appear between numerals and adjectives, the ungrammaticality of (2c) is predicted. As there is no NPE, there is no *pro* (contra Kester 1996). The proposal is extended to Northern Standard Dutch and English. Variation at the surface results from differences in spell-out.

3. **Schwa vs. one.** Two differences emerge between the Dutch schwa and English *one*: schwa is morphologically dependent and does not bear plural morphology (2d). *One* is morphologically free and can be pluralized (3). This is because grammatical nouns can either be cliticized or can have plural morphology, but not both (Emonds 1985). The schwa moves to the head hosting plural, CLASS (cf. also Kranendonk 2006). *One* does not move to this position, however, but Agrees with the CLASS-head. The derivation for the dialects of Dutch that have schwa on numerals in NPE is as follows:

(i) [DP \emptyset [QP *vier* [FP ... [CLASSP -e_i [NP t_i]]]]]

4. **Adjectives in NPE.** Besides numerals, adjectives also exhibit extra morphology in NPE (compare (4a) and (4b)). Contrary to example (2c), however, the extra schwa is not restricted to the construction-final position (4c). It is argued, that the schwas on all pre-final adjectives reflect syntactic agreement with the grammatical noun. The final adjective agrees with the grammatical noun as well, which is reflected by a schwa. It may also bear a phonological realization of the grammatical noun.

5. **Variation in Spell-out.** In the dialects that realize the grammatical noun as schwa, this results in two consecutive schwas after the final adjective, which are phonologically indistinguishable:

(ii) [DP \emptyset [QP *vier* [FP₁ [AP *groot*] [F1' -e_{AGR} [FP₂ [AP *groen*] [F2' -e_{AGR} [CLASSP -e_i [NP t_i]]]]]]]

In Northern Standard Dutch, the grammatical noun is not phonologically realized. As a result, numerals are bare, and adjectives display only the agreement-schwa:

(iii) [DP \emptyset [QP *vier* [FP ... [CLASSP - \emptyset _i [NP t_i]]]]]

(iv) [DP \emptyset [QP *vier* [FP₁ [AP *groot*] [F1' -e_{AGR} [FP₂ [AP *groen*] [F2' -e_{AGR} [CLASSP - \emptyset _i [NP t_i]]]]]]]

In neither of these patterns is it visible at the surface that the grammatical noun is present after adjectives indeed. There is a third pattern, however, in which the final adjective displays richer morphology than pre-final adjectives (compare (5a) and (5b)):

(v) [DP \emptyset [QP *een* [FP₁ [AP *groot*] [F1' -e_{AGR} [FP₂ [AP *geel*] [F2' -e_{AGR} [CLASSP -en_i [NP t_i]]]]]]]

This -en morpheme is phonologically equivalent to the Dutch indefinite article *een*. The indefinite article in turn is a phonologically weak form of the singular numeral *één* “one”. Note that Perlmutter (1970) also argues for a strong syntactic link between the numeral *one* and the indefinite pronoun in English. The current analysis is extended to English, which displays the strongest spell-out of the grammatical noun:

(vi) [DP \emptyset [QP *four* [FP₁ [AP *big*] [F1' \emptyset _{AGR} [FP₂ [AP *green*] [F2' \emptyset _{AGR} [CLASSP +PLURAL [NP **ones**]]]]]]]

The result is a unified theory for NPE in variants of Dutch and in English. Variation at the surface results from different spell-outs of the grammatical noun.

6. **Further evidence.** Corroborating evidence that the schwa following numerals is a nominal head comes from partitives. Numerals in partitives are also followed by schwa. Given the Subject-Object asymmetry (examples (6a-b)), this schwa must be the head of the partitive: ECP-effects affect the head of a construction (cf. Jackendoff 1977 and many others for a silent noun in partitives). This asymmetry is analyzed along the lines of Landau (2007), who argues that phonologically null-headed phrases are excluded from EPP-positions. For that reason, the grammatical noun must be phonologically realized when the partitive is a subject, but not when it is an object.

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Examples

- (1) a. Hij heeft **vier(*e)** auto's.
He has four cars
 "He has four cars."
 b. Talking about cars, (Northern Standard Dutch)
 ... hij heeft er **vier(*e)**
 ... *he has PRT four*
 ... "he has four."
- (2) a. Hie het **vier(*e)** auto's.
He has four cars
 "He has four cars."
 b. Talking about cars, (Giethoorn Dutch)
 ... ik hêw'r **viere.**
 ... *I have-PRT four-e*
 ... "I have four."
 c. Talking about cars
 ... ik hê **vier(*e)** oude.
 ... *I have four old-e*
 ... "I have four old ones."
 d. Talking about cars,
 ... ik hêw'r **vier-e(*nPLURAL)**
 ... *I have-PRT four-e*
 ... "I have four."
- (3) He has four green apples and I have five red **one*(s)**.
- (4) a. een **groot** huis
a big-Ø house
 "a big house"
 b. Talking about houses,
 ... dat is ook een **grote.**
 ... *that is also a big-e*
 ... "that is a big one too"
 c. Talking about houses,
 ... dat is ook een **mooi grote.**
 ... *that is also a nice-e big-e*
 ... "that is a nice (and) big one too."
- (5) a. een **groot geel** zuurtje (Zierikzee-Dutch)
a big-Ø yellow-Ø candy
 "a big yellow piece of candy"
 b. Talking about candy,
 ... Ik wil zo'n **grote gelen**
 ... *I want such-a big-e yellow-en*
 ... "I want such a big yellow one."
- (6) a. [**Viere** van de jongens] hebben een boek gekocht. (Giethoorn Dutch)
Four-e of the boys have a book bought
 "Four of the boys have bought a book"
 b. Ik heb [**vier (*e)** van de jongens] gezien.
I have four of the boys seen
 "I have seen four of the boys".

References

- Emonds, J. (1985) *A Unified Theory of Syntactic Categories*. Dordrecht: Foris Publications.
 Emonds, J. (2000) *Lexicon and Grammar: the English Syntacticon*. Berlin: Mouton de Gruyter.
 Jackendoff, R. (1977) *X-bar Syntax. A Study of Phrase Structure*. Cambridge (Mass): The MIT Press
 Kester, E. P. (1996) *The Nature of Adjectival Inflection*. PhD diss. Utrecht University.
 Kranendonk, H. P. (2006) "Decomposing Quantifiers: A Syntactic Approach to Semantic Bleaching". *UiL-OTS Yearbook 2006*, Utrecht University.
 Landau, I. (2007) "EPP Extensions". *Linguistic Inquiry* 38: 485-523.
 Panagiotidis, P. (2003a) "One, empty nouns and theta assignment." *Linguistic Inquiry* 34: 281-292.
 Panagiotidis, P. (2003a) "Empty Nouns". *Natural Language & Linguistic Theory* 21:381-32.
 Perlmutter, D. (1970) "On the article in English". In M. Bierwisch and K.F. Heidolph (eds.), *Recent Developments in Linguistics*. The Hague: Mouton & Co.