

Quantitative *er*: a new micro-comparative view on an old puzzle

Norbert Corver, Marjo van Koppen and Huib Kranendonk, University of Utrecht/UiL-OTS

1. Background In Dutch, NP-ellipsis (NPE) with numerals or quantifiers as remnants requires the appearance of quantitative *er* (see 1) (see a.o. Bennis 1986). *Er* does not form a constituent with the remnant of NPE, see (1a). *Er* is only possible with NPE (1b).

- (1) a. *Over appels gesproken, ik heb *(er) gisteren vier _____ opgegeten.*
About apples spoken, I have er yesterday four up.eaten
b. *Over appels gesproken, ik heb *(er) gisteren vier appels opgegeten.*
About apples spoken, I have er yesterday four applesup.eaten
'Talking about apples, I have eaten four (apples).'

The crucial question is why *er* is obligatorily present in these cases of NPE. The general answer to this question is that *er* licenses NPE (cf. Bennis 1986, Kester 1996). Kester argues that NPE has to be licensed by adjectival inflection. Since remnants like *vier* do not inflect, they cannot license NPE. As a consequence *er* has to appear. Quantitative *er* and adjectival inflection are assumed to be in complementary distribution. However, data from variants of Dutch suggests that this analysis cannot be correct (see 2,3).

- (2) *Ik heb zes koeën hie hef *(er) acht-e* (Giethoorn Dutch)
I have six cows he has er eight-e

(2) shows that in some dialects there is inflection on the numeral *acht* 'eight', yet *er* is still obligatorily present. Another indication that *er* is not in competition with adjectival inflection comes from Belgian Dutch dialects (see 3) (see also De Schutter 1992, De Rooij 1991).

- (3) *Hij hee vijf ruuë appels en ik he der vier groen-e* (Oosteklo Dutch)
he has five red-e apples and I have er four green-e
'He has five red apples and I have four green ones.'

So, again the question arises how we should analyse quantitative *er* in Dutch and its variants.

2. Ingredients for a new analysis

2.1. Hidden partitive hypothesis In this talk we revive the Hidden Partitive Hypothesis (Jackendoff 1968, Bresnan 1973) in a different flavour and argue that quantified DPs like in (1a,b) enclose a partitive PP underlyingly. An indication that this assumption is on the right track comes from languages like Romanian where certain numerals are obligatorily followed by a partitive PP rather than by a bare noun (Dogaru 2006). In (1b) the head of the partitive PP which denotes the domain of quantification is silent: *vier VAN appels* ('four OF apples' 'four apples'). Quantitative *er* in (1a) is assumed to substitute for this partitive phrase (cf. a.o. Kayne 1975). There are two arguments in favour of assumption. First of all, quantitative *er* diachronically derives from a genitive pronoun (Van Bree 1987), the so-called partitive genitive. We take this observation seriously and assume that *er* still has this partitive function. Secondly, quantitative *er* is in complementary distribution with an overt partitive PP (4).

- (4) *Hij heeft *(er) vier van de appels opgegeten.*
he has er four of the apples up.eaten
'He has eaten four of the apples.'

2.2. The position of the partitive phrase within DP In present-day Dutch partitive PPs (as *van de appels* in (4)) always appear post-nominally. However in Middle Dutch the partitive phrase appeared as a genitive DP and could also appear pre-nominally (see 5).

- (5) *Aman ende sijnre zone twee* (Duinhoven 1988: 95)
Aman and his-poss sons-gen two
'Aman and two of his sons'

Assuming that the numeral is base generated in NumP (Ritter 1991), there are clearly two positions for partitive phrases in Middle Dutch: one following NumP and the other preceding NumP. In present-day standard Dutch only the latter position is available in overt PP partitives like those in (4). We provide an account for this difference based on the fact that partitive phrases in contemporary Dutch are PPs, whereas in Middle Dutch they were NPs with genitive case. We argue that, although unavailable for partitive PPs, *er* moves to this left peripheral position (Asbury 2008) from which position it can move to a position outside DP. *Er*, being a pronoun, moves to a clitic position in the clause (Sportiche 1996). As such our analysis of quantitative *er* resembles a big-DP analysis of clitic doubling: the pronoun *er* and the numeral start out as one constituent after which the pronoun moves out of the DP (see among others Uriagereka 1995).

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3. Explaining the micro-variation patterns

3.1 quantitative *er* cooccurring with adjectives

In Belgian dialects of Dutch it is quite common to have *er* cooccurring with numerals/quantifiers + adjectives (see 3). This is completely ungrammatical in northern Standard Dutch. We show that this difference is related to the fact that Belgian variants of Dutch have rich adjectival inflection, in contrast to the poor inflection found in northern Standard Dutch. More in particular, we argue that the inflection appearing on adjectival endings is actually an instance of a weak pronoun resembling English *one* (Corver & Van Koppen 2009). One of the arguments in favour of this idea comes from the behaviour of the so-called adjectival inflection in certain NPE-cases. The inflection in northern Standard Dutch is always *-e* except for one context, namely with indefinite neuter singular nouns. In that case there is no overt inflection on the adjective. However, if ellipsis of an indefinite neuter singular noun takes place *-e* has to appear (see 6) (see also Broekhuis et al. 2003).

- (6) *Ik heb een zwart konijn en jij hebt een witt-e.*
I have a black rabbit and you have a white-e
'I have a black rabbit and you have a white one.'

If this *-e* appearing on adjectives in NPE cases is indeed a pronoun substituting for NP, then it is immediately clear why *er* cannot appear: *er* also substitutes for the NP. It is only natural that these two devices cannot work at the same time. The question obviously arises why *er* can cooccur with an adjectival remnant A+*-e* in (3) from Oosteklo Dutch. We will show that in those dialects *-e* is a true adjectival inflection and not a pro-form replacing NP. In those cases, *er* can 'pronominalize' the NP-part of the noun phrase.

3.2 quantitative *er* and inflection on the numeral

In Giethoorn Dutch *er* can cooccur with *-what looks like-* adjectival inflection on the numeral. Kranendonk (2008) argues that this ending on the numeral is actually no inflection, but a pronominal element replacing NP. There are two arguments for this: (i) the ending only appears in ellipsis contexts and hence is in complementary distribution with the noun (7a), (ii) the ending only appears on the numeral if it is not followed by an adjective, which is unexpected if *-e* is inflection, but not when it is a pronoun replacing NP since nouns never occur in between adjectives and numerals (7b).

- (7) a. *Ik heb zes koen hie hef (*er) acht(*-e) koen.*
I have six cows he has er eight-e cows
'I have six cows, he has eight cows.'
b. *Ik heb zes zwarte koen hie hef acht(*e) witt-e.*
I have six black cows he has eight-e white-e
'I have six black cows, he has eight white ones.'

When the *-e* on the numeral would be a pronoun replacing NP, as in example (6) above, we would expect that *er* cannot cooccur with the inflection on the numeral (this is actually a pattern found in Bellingwolde Dutch). We propose that the *-e* on *achte* in (3) is a pro-form, more specifically an (enclitic) pronominal copy which is left behind after DP-internal displacement of quantitative *er*. We will draw a parallel here with a dialectal-German and Dutch PP-pattern like *dodrone* (there-there-of, 'of that'), as in [*Dodrone*] *denkt er nicht* ('He doesn't think of that.'). where we find two instances of the d-pronoun: a full form (*do*) and a weak form (*dr*); cf. Fleischer 1999. The former is displaced to Spec,PP, and the latter is the copy which morphologically fuses with P. In (2), *er* is the 'full' pronominal form and *e* is the pronominal copy, morphologically fused with the numeral.

4. Summarizing, a common ingredient of the quantitative *er* construction is the presence of the pro-NP *er*. Interdialectal diversity largely relates to the morphosyntactic status of the numeral and to the status of the *-e* attached to the adjectival remnant (is it a pro-NP or is it a truly adjectival inflection?).

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