SENTENCE-FINAL ADVERBIALS AND STRESS

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1. The problem

When we compare stress patterns of sentence-final adverbials in related Germanic languages like English and Dutch, we observe a striking difference. Adverbials like *yesterday* at the end of subordinate clauses can be contrastively stressed in English (indicated by the capital letters in (1a)), while such final stress is entirely impossible in Dutch (1b):

(1) a.   I think that he saw Bill YESTERDAY
     b.   *Ik denk dat hij Wim zag GISTEREN
             I   think that he Bill saw yesterday

In Dutch, the adverbial must be unstressed and separated from the rest of the sentence by a comma intonation (unstressed adverbial in italics), or at least by an intonation as flat as the intonation of the verb:

(2)   Ik denk dat hij WIM zag, *gisteren*

This pattern (with neutral stress on the direct object) is also possible in English (cf. Cinque (1993) for insightful discussion):

(3)   I think that he saw BILL, *yesterday*

Dutch differs from English in that it has verb-final (OV) order in subordinate clauses. Why would this make a difference with respect to stress?

     A possible answer may be suggested by the fact the Dutch adverbial can also be stressed sentence-finally, but only *after* application of the Verb Second rule that derives the VO order of main clauses:

(4)   Hij zag Wim GISTEREN
          he saw Bill   yesterday

The explanation is simple and straightforward and implicit in the original arguments given for the rule of Verb Second (see Koster (1975)). In Dutch subordinate clauses, adverbials like *gisteren* ("yesterday") can only be contrastively stressed in positions *preceding* the finite verb:

(5)   ...dat hij Wim GISTEREN zag
             that he Bill   yesterday   saw
          "that he saw Bill YESTERDAY"

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As can be concluded immediately from (5), the adverbial GISTEREN ends up in sentence-final position as soon as the finite verb *zag* ("saw") is moved to the front; hence, the grammaticality of (4). This suggests a solution for the English possibility of having a sentence-final stressed adverbial, as in (1).

2. The solution

In traditional accounts of the structures of English and Dutch, the difference between the two languages with respect to sentence-final adverbial stress is unexpected and unaccounted for. Traditional analyses for both languages account for sequences of adverbials to the right of the VP by successive rightward adjunction to the VP. Such repeated rightward adjunction is no longer allowed under more recent theoretical innovations such as Kayne's antisymmetry theory (Kayne (1994)). But even under this new theory, it is not immediately obvious how the difference between English and Dutch with respect to stress should be accounted for.

The solution I would like to propose is akin to the account for the emergence of sentence-final adverbial stress in Dutch examples like (4). The idea is that a stressed sentence-final adverbial is *not* sentence-final in *underlying* structure, but only in a derived structure that shows up after some movement involving the verb. Unlike Dutch, English has no general rule of Verb Second, so, the question is what kind of rule brings about the verb displacement in English.

The answer can be found in a recent analysis of the word order of English and Dutch (Koster (1999)). According to this account, all languages have the same underlying word order (SVO). In this universal word order, the basic position of adverbials like *yesterday* is to the left of the VP. In this position, such adverbials can be stressed (capitals), while, universally, there also is an unstressed specification position (comparable to the configuration for similarly unstressed right-dislocated elements), as indicated by the final adverbial in italics:

(6)   ...YESTERDAY...VP... *yesterday*

This configuration is exactly the same for Dutch, in accordance with the proposed theory of universal base order:

(7)   ...GISTEREN...VP...*gisteren*

As long as a finite verb, the head of the VP, remains inside this VP, the final adverbial must be the unstressed *gisteren.* However, if the VP is emptied in (7), for instance by Verb Second, the stressed GISTEREN can appear in sentence-final position, as exemplified by (4).

In general, it is assumed in Koster (1999) that the elements of the VP in Dutch (such as the V and its objects) are *individually* checked against the features of the relevant functional heads (such as Tense for the verb and Case for the objects). This VP-emptying checking mechanism explains the OV order of Dutch, its richer scrambling possibilities than what is found in English, and a host of other facts.

For English, in contrast, it is assumed that the VP is not emptied but that the features of VP-internal elements are *collectively* checked by moving the whole VP for checking purposes, a form of "massive Pied Piping" related to certain accounts given in Koopman and

Szabolcsi (1998). Movement (for checking) of the whole VP in English explains why the underlying universal VO order is preserved in English, why English, unlike Dutch and German has no leftward-scrambling, and a host of other facts. Particularly striking are certain facts of adverbial order and scope. If the whole VP moves to the left of YESTERDAY in English feature checking (in (6)), we explain why such adverbials cannot occur to the left of the VP:

(8)   *He yesterday [VP saw Bill]

In Dutch, in contrast, the verb is not moved in subordinate clauses (only the objects) and adverbials like *gisteren* ("yesterday") can remain to the left of the VP, as predicted:

(9)   ...dat hij gisteren   Wim zag
              that he yesterday Bill saw
           "that he saw Bill yesterday")

Applied to (6), English VP-movement for feature-checking entails that the V shows up to the left of the adverbials in derived structures, with both unstressed *yesterday* (the underlying most final position, unstressed in Dutch as well) (as in (3)) and stressed YESTERDAY (in the underlying position to the left of the original position of the VP (as in (1a)). In short, the VP-movement postulated for English in Koster (1999), explains both possibilities of English on the basis of a universal underlying word order. The stress facts of English therefore strongly support the theory in question. More generally, the proposed theory explains the differences between English and Dutch we started out with (see (1)).
     Another matter is why the very final position for adverbials like *yesterday* requires absence of stress. As already observed above, this is the same stress pattern as we find for left dislocation (where *Bill* is coreferential with *him*):

(10)   a.   I KNOW him, *Bill*
          b.   *I know him, BILL

Left dislocations as in (10), require the same comma (or flat) intonation and obligatory absence of stress as what we find with *yesterday* in the very final position. I will therefore propose that obligatorily unstressed adverbials in sentence-final position actually do represent some form of left dislocation, where the specified "anaphoric" part of the left dislocation (like *him* in (10)) is the Spec of a universal adverbial Temp head along the lines of adverbial theories as found in Alexiadou (1997) and Cinque (1998). This, however, is a topic requiring a much more elaborate account (Koster (forthcoming)).

Bibliography

Alexiadou, A. (1997) *Adverb Placement: A Case Study in Antisymmetric Syntax*. John Benjamins, Amsterdam

Cinque, G. (1993) "A Null Theory of Phrase and Compound Stress". Linguistic Inquiry 24, 239-297.

Cinque, G. (1998) *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. Oxford University Press, New York, etc.

Kayne, R. (1994) *The Antisymmetry of Syntax*. MIT Press, Cambridge, Mass.

Koopman, H. and A. Szabolcsi (1998) "Verbal Complexes." Ms., UCLA, Los Angeles.

Koster, J. (1975) "Dutch as an SOV Language." *Linguistic Analysis* 1, 111-136.

Koster, J. (1999) "The Word Orders of English and Dutch: Collective vs. Individual Checking". Ms., University of Groningen, Groningen.

Koster, J. (forthcoming) *The Right Side of Grammar*.

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