Obligatory extraposition and clausal complementation

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1. Introduction

This short paper explores the relation between obligatory extraposition in Dutch and clausal complementation.[1] In particular, I will be sketching some of the consequences of adopting the hypothesis that constituents that obligatorily undergo extraposition in Dutch are clausal complements. To the extent that this hypothesis is on the right track, it can serve as a new diagnostic for detecting elliptical structures on the one hand and for testing argumenthood on the other. The paper is organized as follows. In section 2, I establish a generalization well-known from the Dutch descriptive literature and made explicit by Broekhuis & Corver (2016), namely that clausal complements undergo obligatory extraposition in Dutch. Based on those observations I propose a hypothesis that posits a stronger link between the two properties: all constituents that obligatorily undergo extraposition are clausal complements. In section 3, I explore one type of consequence of this hypothesis, viz. the fact that constructions that are obligatorily extraposed should be clausal in nature, despite initial appearances. In section 4, I use the hypothesis as a diagnostic for the argument- or adjuncthood of certain types of embedded clauses. Section 5 concludes.

2. Obligatory extraposition of clausal complements

As is well-known, direct objects that take the form of a clause need to undergo obligatory extraposition in Dutch:[2]

(1)   a. omdat ik denk [dat   Mia   slaapt].
          because I think   that   Mia   sleeps
          'because I think Mia is sleeping.'

[2] Complements of factive verbs seem to form an exception to this generalization in that they can occur in the middle field. The exception might turn out to be apparent, though, if factive clauses either are nominal in nature or if they are more adjunct- than argument-like. See Kiparsky & Kiparsky (1971), Barbiers (2000), and Broekhuis & Corver (2015: 669-684) for discussion.

b. *omdat ik [dat Mia slaapt] denk.

    because I that Mia sleeps think

    INTENDED: 'because I think Mia is sleeping.'

As shown in (2), this holds not just for finite complements, but also for infinitival clauses.

(2)   a. omdat ik probeer [om Kim te helpen].

      because I try for Kim to help

      'because I'm trying to help Kim.'

    b. *omdat ik [om Kim te helpen] probeer.

      because I for Kim to help try

      INTENDED: 'because I'm trying to help Kim.'

Interestingly, the generalization does not apply to embedded clauses in general, but only to arguments. The temporal adverbial clause in (3), for example, can but need not undergo extraposition.[3]

(3)   a. omdat ik [nadat ze was weggegaan] in slaap ben gevallen.

      because I after she was left in sleep am fallen

      'because I fell asleep after she left.'

    b. omdat ik in slaap ben gevallen [nadat ze was weggegaan].

      because I in sleep am fallen after she was left

      'because I fell asleep after she left.'

In short, the data reviewed so far establish the generalization that clausal complements in Dutch undergo obligatory extraposition — a conclusion also arrived at by Broekhuis & Corver (2016: 1561). In this paper I would like to explore if there is value in strengthening this one-way implication into a biconditional, by examining the consequences of the other implication, formulated as a hypothesis in (4).

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[3] I am abstracting away from subject clauses in this paper, so as to avoid the — largely orthogonal — issue of center-embedding, but to the extent that subject clauses pattern with adjuncts in optionally undergoing extraposition, the generalization seems to be about clausal *internal* arguments.

(4)   **Hypothesis on Extraposition and Clausal Complementation (HECC)**

Constituents that undergo obligatory extraposition in Dutch are clausal complements.

The HECC implies that if a constituent is not a clausal complement, it should not undergo obligatory extraposition, and so it should either resist extraposition altogether or be optionally extraposed. Two initial indications that this line of thinking might be on the right track are prepositional objects, exemplified in (5), and relative clauses, illustrated in (6). Both can be optionally extraposed, and neither arguably qualifies as a clausal complement: the former because they are not clausal and the latter because they are not complements.

(5)   a.   omdat   ik [op wereldvrede] hoop.
            because I   on world.peace   hope
            'because I'm hoping for world peace.'

       b.   omdat   ik hoop [op   wereldvrede].
            because I hope   on   world.peace
            'because I'm hoping for world peace.'

(6)   a.   omdat ik de man [die   daar zit] herken.
            because I   the man   who there sits recognize
            'because I recognize the man who is sitting there.'

       b.   omdat ik de man herken   [die daar zit].
            because I   the man recognize whothere sits
            'because I recognize the man who is sitting there.'

In the remainder of this paper I explore the consequences of the HECC in contexts that are less straightforward. Section 3 looks at constituents that obligatorily undergo extraposition but that at first glance appear to be non-clausal, while in section 4 I focus on the question of whether certain types of embedded clauses are arguments or adjuncts, based on their extraposition behaviour.

3. Clauses in disguise

Let us first consider reduced *wh*-questions of the type in (7).

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(7) Radja heeft iemand gezien, en ik weet wie.
     Radja has   someone seen   and I   know who
     'Radja saw someone and I know who.'

In this construction — commonly referred to as sluicing since Ross (1969) — an entire *wh*-question is reduced to a single *wh*-phrase. One of the central questions surrounding sluicing is how to resolve the discrepancy between form and meaning: a single nominal constituent is pronounced, but a propositional meaning is obtained. Is this the result of a non-standard form-meaning mapping, or does the example contain abstract, unpronounced syntactic structure that compositionally contributes to the meaning in a fully regular way? (See Merchant (2019) for overview and discussion.) Interestingly, the HECC allows us to use extraposition as a possible argument in this debate. Note that sluiced clauses obligatorily undergo extraposition:

(8)   (Radja saw someone)
     a. en   ik denk dat ik weet [wie].
         and I   think that I   know who
         'and I think I know who.'
     b. *en   ik denk dat ik [wie] weet.
         and I   think that I   who know
         INTENDED: 'and I think I know who.'

The word order pattern shown in (8) is exactly like the one we saw in section 2 for clausal complements, and unlike that of *bona fide* nominal constituents (which cannot be extraposed at all). As such, the HECC provides an argument in favor of postulating abstract, unpronounced syntactic structure in the analysis of sluicing (see Merchant (2001) for more extensive discussion).

     Another case where a constituent that looks subclausal expresses a propositional meaning is given in (9). The PP *van wel* — and its negative counterpart *van niet* 'of not' — ostensibly consists of a preposition and an adverb, but the meaning expressed is that of affirming or negating an entire clause. Moreover, as the contrast between (9a) and (9b) shows — and just as was the case in (8) — these elements undergo obligatory extraposition:

(9) a. omdat ik denk [van wel].

   because I think of   so

   'because I think so.'

  b. *omdat ik [van wel] denk.

   because I   of   so   think

   INTENDED: 'because I think so.'

Based on the HECC, this suggests that these constructions are clausal, despite first appearances. A possible indication that this line of reasoning might be on the right track is Barbiers's (2000: 207) observation that the construction in (9) cannot be combined with a full clausal complement, as shown in (10). He takes this to mean that *van wel* 'of so' occupies the same structural position as clausal complements, which in turn suggests that they are similar in nature.

(10) *Ik denk van wel dat Jan komt.

   I   think of   so   that Jan comes

Another area of linguistics where the distinction between clausal and phrasal plays a central role is that of comparatives. As shown by the pair of examples in (11), the standard of comparison can be expressed both by a clause as in (11a) and by what appears to be a simple noun phrase as in (11b).

(11) a. Sue is more intelligent than Kay is.

   b. Sue is more intelligent than Kay.

There is a fairly widespread consensus in the literature that both types of comparatives, clausal and phrasal, exist, and that there are tests to distinguish the two (see Lechner (2019) for discussion and references). One of those tests concerns the categorial nature of the standard phrase (i.e. the phrase *Kay* in (11b)). If it is non-nominal, the comparative is clausal, so the test goes. If this criterion is on the right track, we expect HECC to able to make the same split. As shown in (12)-(13), however, this is not the case: a nominal standard phrase like *Hanne* in (12) is indeed optionally extraposed and hence is not (exclusively) clausal, but an adverbial remnant

like *gisteren* 'yesterday' in (13) does not require extraposition either and so by this test is not (exclusively) clausal in nature.[4]

(12) a. omdat   ze   slimmer is [dan   Hanne].
          because she smarter is   than Hanne
          'because she's smarter than Hanne.'

   b. omdat   ze   slimmer [dan   Hanne] is.
          because she smarter   than Hanne   is
          'because she's smarter than Hanne.'

(13) a. omdat   ze   meer niest   [dan   gisteren].
          because she more sneezes than   yesterday
          'because she's sneezing more than yesterday.'

   b. ?omdat   ze   meer [dan   gisteren] niest.
          because she more   than   yesterday sneezes
          INTENDED: 'because she's sneezing more than yesterday.'

I want to close off this section by considering one more case that fits the same mold: on the surface the construction looks non-clausal, but on the other hand, its meaning is clearly propositional in nature. It concerns what one could call 'infinitival PPs' as in (14).

(14) a. totdat hij stopt [met huilen].
          until he stops with cry
          'until he stops crying.'

   b. *totdat hij [met huilen] stopt.
          until he   with cry   stops
          INTENDED: 'until he stops crying.'

As the contrast between the a- and the b-example shows, infinitival PPs undergo obligatory extraposition. If the HECC is on the right track, then these constituents should be clausal. I know of no existing analyses that treat infinitival PPs as underlyingly clausal, though it is

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[4] In my judgment, the non-extraposed version in (13b) does sound more marked than the extraposed one in (13a) — as indicated by the use of the question mark — and a quick search in the SoNaR-corpus (Oostdijk et al. 2013) yields more hits for the pattern *more V than ADV* than for the pattern *more than ADV V*, but the difference between (13a) and (13b) is clearly not categorical.

tempting to see the preposition *met* 'with' here as a type of complementizer, not unlike the role it plays in the so-called absolute *with*-construction (Haslinger 2007). I leave this as a topic for further research.

4. Arguments and adjuncts in disguise

The previous section dealt with a number of constructions that appear to be non-clausal, but that nonetheless undergo obligatory extraposition, and for which the HECC accordingly predicts that they should be (underlyingly) clausal in nature. In this section, I turn to another aspect of the HECC, namely the prediction that constituents that are obligatorily extraposed are not just clausal in nature, but also arguments rather than adjuncts. In particular, I focus on two cases where the constituent under discussion is clearly clausal — it is introduced by a complementizer and contains a finite verb — but where its argumenthood is debated. I show that in those cases too, the HECC can provide an additional argument in favor of one or the other position. The first case I want to focus on concerns clauses that accompany nouns, in particular deverbal nouns. An example is given in (15).

(15) de   hoop [dat ze   haar   nog zou   terugzien].
     the hope   that she her   still would see.again
     'the hope that she would see her again.'

The noun *hoop* 'hope' is deverbal, in that it is derived (via zero-derivation) from (the stem of) the verb *hopen* 'to hope'. That verb can select a finite clause introduced by the complementizer *dat* 'that' as its direct object. From that perspective, it seems reasonable to assume that the noun *hoop* can also select a clause as its complement, i.e. that the bracketed clause in (15) is an argument rather than an adjunct. Intuitive though it may be, this point of view is far from universally adopted. Stowell (1981) already argued that a clause like the one in (15) is not an argument to the noun, but that it stands in an appositive relation to it (see also Elliott (2020) for recent discussion). Once again we can use the HECC as an additional window into the debate: as the examples in (16) show, so-called complement clauses of nouns are optionally extraposed, even in the case of deverbal nouns. To the extent that the HECC is on the right track, it provides additional support for a Stowell-like analysis, whereby the finite clause following the noun *hoop* is not its argument.

(16) a. omdat   ze de hoop had opgegeven [dat   ze haar nog zou   terugzien].
        because she the hope had given.up   that she her   still would see.again
        'because she had given up the hope that she would see her again.'

    b. omdat   ze de hoop [dat ze haar nog zou   terugzien] had   opgegeven.
        because she the hope that she her   still would see.again   had   given.up
        'because she had given up the hope that she would see her again.'

Another context where the argument- or adjuncthood of a clause is not immediately clear concerns degree clauses as in (17).

(17) Ze rende zo hard [dat ze   neerviel].
     she ran   so hard   that she down.fell
     'She ran so hard that she fell down.'

At first glance, the bracketed clause in (17) might be an adjunct: it can easily be left out, and it seems to express optional, extra — as opposed to thematic — information. On the other hand, it does have a clear formal dependency on the pre-adjectival adverb *zo* 'so', which might hint at a selection relation and hence argumenthood for the clause. The extraposition facts in (18), in combination with the HECC, suggest that the second option might be on the right track.

(18) a. omdat   ze zo hard rende [dat ze   neerviel].
        because she so hard ran   that she down.fell
        'because she ran so hard that she fell down.'

    b. *omdat ze zo hard [dat ze   neerviel] rende.
        because she so hard   that she down.fell ran
        INTENDED: 'because she ran so hard that she fell down.'

5. Conclusion

It should be clear that this paper is but a first exploration of the possible two-way interaction between obligatory extraposition and clausal complementation in Dutch. To the extent that the analyses proposed are plausible and can be corroborated by additional, independent evidence, though, it suggests that a simple word order property in a well-researched language can have wide-ranging diagnostic repercussions.

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