

Negative intervention in Dutch evaluative adverbs

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Abstract. Dutch has a minimal contrast between the evaluative adverb *gelukkig* ‘fortunately’, and its antonym *ongelukkig-erwijs* ‘unfortunately’. Both are derived from the adjective *gelukkig* ‘lucky, happy’, but only the latter is marked by the overt adverbial suffix *-erwijs* ‘-ly’. We present an account of this contrast in terms of intervention by a Neg head, which forces the separate spellout of a higher portion of the functional hierarchy as an adverbial suffix.

1 Dutch evaluative adverbs

As a rule, adverbs are not formally marked in Dutch, and are therefore mostly syncretic with adjectives. An exception to this general rule are evaluative adverbs, which need to be formally marked, either morphologically or syntactically. Morphologically, they may be marked by the suffix *-erwijs*, which derives adverbs from adjectives. Some examples of evaluative adverbs are given in (1):

- | | | |
|-----|----------------------------|------------------|
| (1) | <i>verrassend-erwijs</i> | ‘surprisingly’ |
| | <i>interessant-erwijs</i> | ‘interestingly’ |
| | <i>begrijpelijk-erwijs</i> | ‘understandably’ |
| | <i>paradoxal-erwijs</i> | ‘paradoxically’ |
| | <i>merkwaardig-erwijs</i> | ‘curiously’ |
| | <i>opvallend-erwijs</i> | ‘strikingly’ |

The meaning of these evaluative adverbs can be paraphrased as in (2), where *A* indicates the slot for the corresponding adjective, and *p* is the sentence in which the adverb occurs:¹

1. This is an informal approximation; for more detailed discussion of evaluative adverbs, see Bellert (1977); Bonami & Godard (2008); Mayol & Castroviejo (2013), and references cited there.

(2) The speaker finds it A that *p*

As an alternative to suffixation with *-erwijs*, the relevant adjectives may also be followed by *genoeg* ‘enough’ to derive the evaluative adverb interpretation:²

(3) Merkwaardig genoeg was het rijtuig een dwarsbalk verloren.
 curious enough was the carriage a crossbar lost
 ‘Curiously, the carriage had lost a crossbar.’

Barbiers (2001) calls this a case of *genoeg*-support, because this type of *genoeg* ‘enough’ does not appear to contribute anything to the meaning of the adjective, i.e. (4a) has a meaning equivalent to (4b) rather than (4c):

- (4) a. Marie heeft vreemd genoeg niet gebeld.
 Marie has strange enough not called
 ‘Strangely, Marie hasn’t called.’
 b. Het is vreemd dat Marie niet gebeld heeft.
 It is strange that Marie not called has
 ‘It is strange that Marie hasn’t called.’
 c. Het is vreemd genoeg dat Marie niet gebeld heeft.
 It is strange enough that Marie not called has
 ‘It is strange enough that Marie hasn’t called.’

The meaning of (4a) is paraphrasable as in (4b), which is in essence that of (2). No semantic contribution is made by *genoeg* ‘enough’, which is semantically vacuous, but whose presence seems to be required for syntactic reasons only (much like *do*-support in the verbal domain in English).³ To the paraphrase of (4b) we may now add *genoeg*, as in (4c), and in this case *genoeg* ‘enough’ does make a semantic contribution as an adjectival modifier. This meaning is roughly equivalent to ‘sufficiently A (to VP)’, as illustrated in (5):

2. Marking of the adverb by *genoeg* ‘enough’ is more productive than marking by *-erwijs*, in that *genoeg* can be added to any adjective with an evaluative meaning, but *-erwijs* to only a subset of these (e.g. *vreemd genoeg* ‘oddly’ vs **vreemd-erwijs*). On the other hand, adverbs derived with *-erwijs* can have a wider range of meanings than those with *genoeg* ‘enough’, and be used as adverbs of alethic modality, expressions of durative aspect, or adverbs of manner (see De Belder & Vanden Wyngaerd 2018 for discussion).

3. *Genoeg*-support also recalls the phenomenon of *much*-support in English, as discussed in Corver (1997).

- (5) Die schoenen zijn groot genoeg voor mij om te dragen.
 those shoes are large enough for me COMP to wear.
 ‘Those shoes are large enough for me to wear them.’

As (5) shows, regular *genoeg* has argument structure of its own, like a PP with *voor* ‘for’, and an infinitival clause introduced by the complementizer *om*). As Barbiers observes, such argument structure is unavailable with *genoeg*-support, as shown in (6).

- (6) *Marie heeft vreemd genoeg voor mij niet gebeld om me
 Marie has strange enough for me not called COMP me
 zorgen te maken.
 worries to make
 Intended: ‘Marie hasn’t called, and I find this strange enough to worry.’

As we already stated above, the evaluative adverb interpretation requires either the adverbial suffix *-erwijs*, or *genoeg*-support. Without either of these two present, the intended reading disappears, and the sentences become ungrammatical:

- (7) *Merkwaardig/verrassend/begrijpelijk was hij gekwetst.
 curious/surprising/understandable was he hurt
 intended: ‘Curiously/Surprisingly/Understandably, he was hurt.’

There is, however, one exception to this general rule: the adjective *gelukkig* ‘lucky, happy’ may appear with the evaluative interpretation (to mean ‘fortunately’) in the absence of either the suffix *-erwijs* or *genoeg*-support:

- (8) Gelukkig was er een dokter in de zaal.
 fortunate was there a doctor in the room
 ‘Fortunately, there was a doctor in the room.’

Interestingly, a minimal contrast arises with the polar opposite of *gelukkig* ‘fortunate(ly)’, the *on*-prefixed adjective *ongelukkig* ‘unfortunate’. Although clearly morphologically derived from *gelukkig* ‘fortunate(ly)’ through *on*-prefixation, *ongelukkig* ‘unfortunate’ again falls under the general rule that either the suffix *-erwijs* or *genoeg*-support are needed for the evaluative adverb reading:⁴

4. The Historical Dictionary of the Dutch language (*Woordenboek der Nederlandse Taal*, WNT; <http://www.wnt.inl.nl>) also gives *(on)gelukkiglijk* as archaic forms of the adverb.

- (9) {Ongelukkigerwijs / ongelukkig genoeg / *ongelukkig} was
 unfortunately / unfortunate enough / unfortunate was
 er geen dokter in de zaal.
 there no doctor in the room
 ‘Unfortunately, there was no doctor in the room.’

The purpose of this brief paper is to shed a light on this contrast. We shall argue, first, that *gelukkig* has a lexical entry that differs from that of other evaluative adverbs, and that allows it to spell out a larger structure, without needing to take recourse to a suffix. Second, we shall attribute the necessary appearance of a suffix with the negative *on-gelukkig* ‘unfortunate’ to an intervention effect caused by the negative prefix, which blocks the adjective from functioning as an evaluative adverb. We shall show that this blocking effect arises with evaluative adverbs, but not with manner adverbs. This leads us to hypothesize that there are (at least) two different adverbial heads in the functional sequence.

2 The internal structure of adverbs

The case of the Dutch evaluative adverbs shows that adverbs may be derived from adjectives through the addition of a suffix. This obviously fits into a broader pattern found in English and numerous other languages, where adverbs are visibly larger than adjectives (e.g. *quick, quickly*). Yet at the same time, the case of *gelukkig* instantiates a pattern that is also found elsewhere, namely one where the adverb is unmarked, i.e. syncretic with the adjective (e.g. *fast*). This state of affairs can be explained as a difference in size of the lexical items involved: an adverb is larger than an adjective, i.e. it spells out more structure, as witnessed by the fact that adverbs are often decomposable as adjectives plus an extra marker that turns them into adverbs. For concreteness, we assume that adverbs realise an extra feature ADV. Unmarked adverbs, i.e. adverbs that are syncretic with adjectives, spell out the entire structure, whereas marked adverbs arise on the basis of adjectives that can realise less features. We represent this rather informally as in the following table:

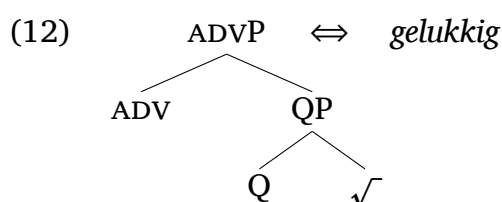
(10)	A	ADV
	quick	ly
	fast	

In the same way, the difference between morphologically marked evaluative adverbs in Dutch and the unmarked one *gelukkig* ‘fortunately’ is represented in (11):

(11)

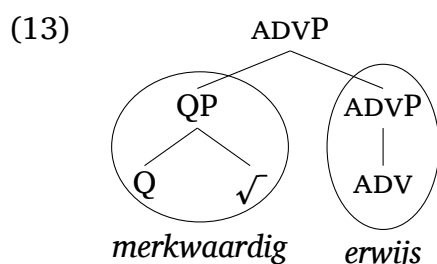
A	ADV
merkwaardig	erwijs
gelukkig	

Taking the somewhat informal concept of the ‘realisation of features’ to correspond to the nanosyntactic mechanism of phrasal spellout, we assume that a syncretic form like *fast* spells out ADVP. The syncretism between the adverb and the adjective arises as a familiar consequence of the Superset Principle. A nonsyncretic adjective like *quick* realises a smaller constituent, so that a separate exponent *-ly* is needed to spell out the adverbial head. Applied to the case of the evaluative adverbs in Dutch, the contrast between the marked and the unmarked adjectives reduces to the size of their lexical trees. The unmarked evaluative adverb *gelukkig* spells out an ADVP, i.e. a constituent that contains an ADV feature on top of the projection of the gradable adjective, as shown in (12). We furthermore take gradable adjectives to decompose into a gradability feature Q and a root feature (see De Clercq & Vanden Wyngaerd 2019), so that the full structure of *gelukkig* ‘fortunate(ly)’ looks as in (12):

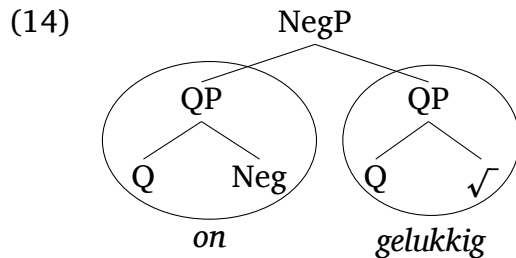


Standard Superset Principle logic implies that *gelukkig* may spell out both a gradable adjective (QP) and an adverb (ADVP).

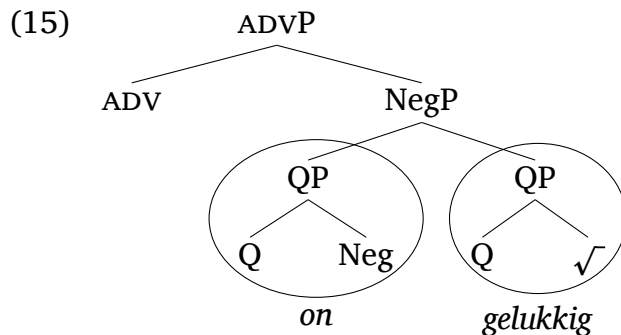
Suffixally marked adverbs are lexically smaller: they involve an adjectival root of the size QP (i.e. that of a gradable adjective), and need an additional exponent spelling out the ADV feature. This requires spellout-driven movement of QP across ADV, allowing for the spellout of the suffix, as shown in (13) for the case of *merkwaardig-erwijs* ‘curiously’.



De Clercq & Vanden Wyngaerd (2019) argue that the negative prefix *on-* ‘un-’ spells out a Neg feature as well as a gradability feature Q, and that this prefix is merged as a specifier in the adjectival spine (Starke 2018). Since the adjectival spine has an optional Neg position on top of QP, the negative specifier projects a NegP in the main spine (Starke 2004). This is shown in (14):

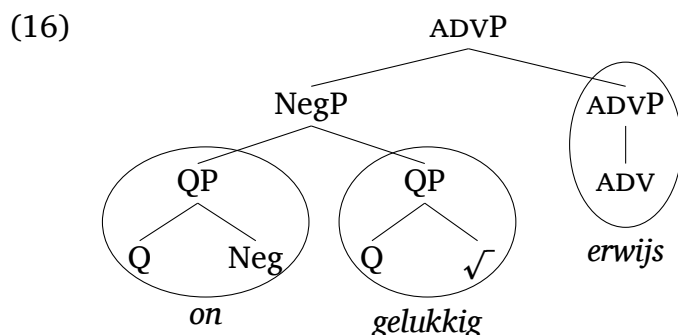


This is the structure for the negative adjective *ongelukkig* ‘unhappy’. Now this can be turned into an adverb by merging the ADV feature on top of it:



But there is no lexical item that can spell out this ADVP. The lexical tree for *gelukkig* ‘fortunate(ly)’ (which is as in (12) above) does not contain (15) as a subtree, due to the additional NegP in (15). This is what we described earlier as an intervention effect: the NegP projected by the prefix intervenes between the Q and ADV heads, and this prevents the spellout of ADVP by the lexical item *gelukkig*, even though the latter is big enough in principle to spell out ADVP. The reason that it cannot do so in this case is that the syntactic derivation contains an element which is optional in the functional sequence, namely NegP. Because of this intervening element, *gelukkig* is restricted to spelling out the lower projection QP, ‘shrinking’ as it were below NegP, and the higher features of the sequence (Neg and ADV) need to be spelled out by separate exponents (respectively *on-* and *-erwijs*). In particular, the ADV head needs to be spelled out by the available suffix because of the intervening NegP.

The way the ADV feature is spelled out in the negative adverb *ongelukkigerwijs* ‘unfortunately’ is that NegP raises to adjoin to ADVP, allowing the spellout of the latter as the suffix *erwijs*, as shown in (16):⁵



Finally, note that both in (15) and (16) the negative prefix is a structural, but not a linear, intervener between the adjectival root and the suffix. Since the Neg head sits on the opposite side of the root from the suffix, the adjectival root and the suffix are linearly adjacent, but not structurally adjacent. These data argue against possible alternative accounts of the intervention effect in purely linear terms, such as the account in terms of spanning proposed by Haugen & Siddiqi (2016).

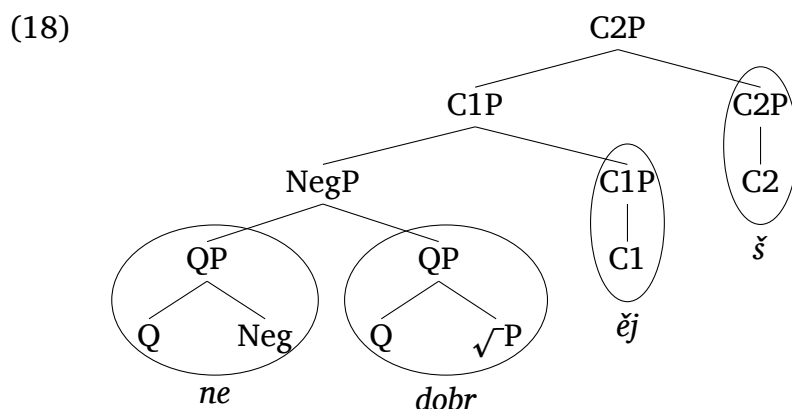
An analogous case of lexical ‘shrinking’ as a consequence of Neg intervention is discussed in De Clercq & Vanden Wyngaerd (2017b). They note that the Czech suppletive adjective pair *dobrý-lepší* ‘good-better’ reverts to the nonsuppletive root in the comparative if the adjective is prefixed with the negative prefix *ne-* ‘un-’:

(17)

POS	CMPR	
<i>dobr-ý</i>	<i>lep-ší</i>	‘good-better’
<i>ne-dobr-ý</i>	<i>ne-dobř-ej-ší</i>	‘bad-worse’
	<i>*ne-lep-ší</i>	

This pattern is exactly the same as that observed with the Dutch evaluative adverb pair *gelukkig-ongelukkigerwijze* ‘fortunately-unfortunately’, under the assumption that the suppletive root is larger than the nonsuppletive one, and that the NegP is a structural intervener in the adjectival sequence between QP and the markers of the comparative, as shown in (18):

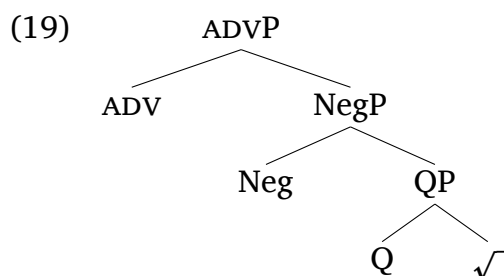
5. In the formulation of the spellout algorithm of Starke (2018), this type of rollup movement would only be attempted after movement of the Spec of the complement of ADV, and subsequent unsuccessful spellout. This additional step does not affect the reasoning here, since Spec-to-Spec movement of the prefix will not lead to successful spellout of ADVP.



The suppletive root *lep* spells out the complex of QP and C1 (i.e. C1P) (see Caha 2017; De Clercq & Vanden Wyngaerd 2017a; Caha, De Clercq & Vanden Wyngaerd 2019; Vanden Wyngaerd et al. 2020 for more discussion of the analysis of comparative suppletion along these lines). However, *lep* cannot spell out C1P in this case because C1P also contains NegP. As a result, the adjectival root has to shrink to spell out QP, and gets realised as *dobr*. In addition, C1 now needs the additional comparative marker *-ěj-* in the nonsuppletive comparative form *ne-dobř-ěj-š-í* ‘worse’. This is exactly parallel to the emergence of the adverbial marker *-erwijs* at the point where *gelukkig* shrinks to spelling out QP due to the intervening NegP.

3 More adverb positions

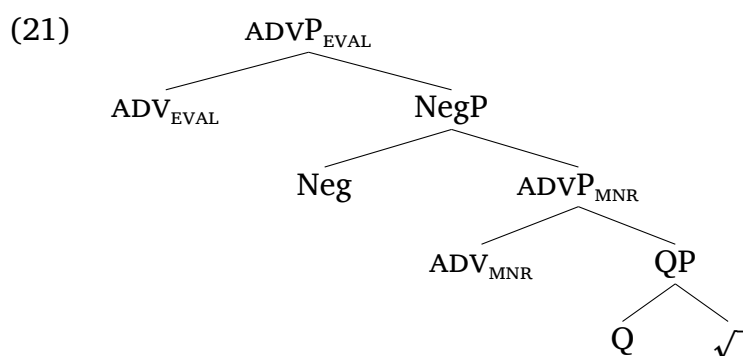
Let us return to the functional sequence that we have established so far:



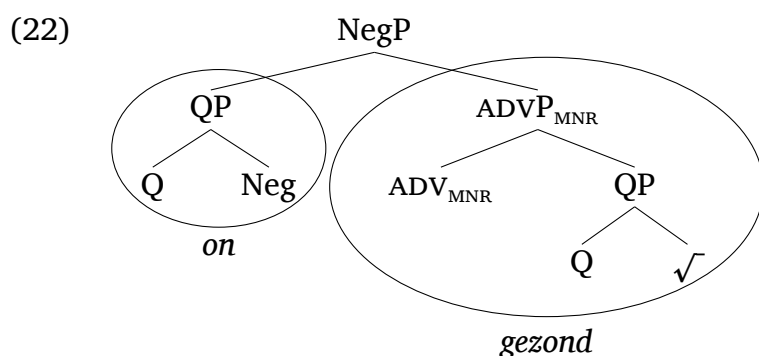
This hierarchy makes a concrete prediction, which is that no adjective with the negative prefix *on-* ‘un-’ should be syncretic with an adverb: as in the case discussed in the previous section, NegP will intervene and cause separate lexicalisation of the ADV feature. However, this prediction turns out to be wrong, in that there are numerous cases of manner adverbs which are syncretic with *un-*prefixed adjectives:

- (20) a. Hij heeft haar on-menselijk/on-vriendelijk behandeld
 he has her un-human/un-friendly treated
 ‘He has treated her cruelly/in an unfriendly manner.’
 b. Ze eten on-gezond.
 they eat un-healthy
 ‘They eat unhealthily.’

These facts suggest that there are different ADV features, corresponding with different types of adverbs. Assuming that there is a feature for evaluative adverbs above NegP, and one for manner adverbs below NegP will give us what we need. This order respects the order for adverbs proposed by Cinque (1999).



Now manner adverbs can be syncretic with adjectives and still be prefixed with *on* ‘un-’, since the negative prefix will not intervene between Q and ADV_{MNR}, thus allowing the adjective-adverb syncretism, while at the same time allowing the addition of the negative prefix on top of the adverb or adjective in subsequent stages of the derivation. The tree below gives the derivation for the manner adverb *ongezond* ‘unhealthily’:



That there are two different adverbial positions in the sentential hierarchy is further confirmed by the fact that evaluative and manner adverbs can co-occur, even if they involve the same adjectival root:

- (23) a. Vreemd genoeg behandelde hij de dieren vreemd.
 strange enough treated he the animals strange
 ‘Strangely, he treated the animals strangely.’
- b. Begrijpelijkerwijs probeerde hij zijn voorstel begrijpelijk
 understandably tried he his proposal understandable
 uit te leggen.
 out to lay
 ‘Understandably, he tried to explain his proposal in an understand-
 able way.’

4 Conclusion

In this paper we have investigated an intervention effect caused by a negative head in the sequence of heads entering into the internal makeup of evaluative adverbs in Dutch. The intervening head caused the adjectival root to shrink, and the adverbial head to be spelled out by a separate suffix. The fact that the intervention effect does not show up with manner adverbs led us to postulate two distinct adverbial heads, one for manner adverbs below NegP and one for evaluative adverbs above NegP. This proposal for the functional sequence inside words agrees with the one proposed for the clausal level in Cinque (1999).

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