

## Adverbial -s: so awks but so natural!

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### 1. Introduction

It seems fair to say that the bound morpheme *-s* in languages such as Dutch and English is most familiar from possessive noun phrases such as *Freds auto* (Dutch) and *Fred's car*. As has been noted by traditional grammarians, however, the distribution of *-s* is much more widespread. Specifically, *-s* occurs abundantly in what are traditionally called adverbial expressions. Some illustrations of this so-called adverbial *-s* in Dutch and English are given in (1) and (2), respectively:

- (1) *eens* 'once', *ineens* 'at once', *ergens* 'somewhere', *anders* 'differently', *ondergronds* 'underground', *straks* 'soon'.
- (2) indoors, upwards, northwards, sideways, sometimes, always

Although it may be tempting to analyze these examples as fixed, unanalyzable expressions, there are signs of morphosyntactic behavior that hint at a composite structure of these expressions. In Dutch, for example, *straks* can be split up by means of a diminutive morpheme: *strak-je-s* (soon-DIM-S, 'soon'). Also, the expression *ondergronds* exhibits a phrasal stress pattern rather than a word-like (compound) stress pattern. This is exemplified by onderGRONDS in (3a), which has the same stress pattern as the prepositional phrase *onder de GROND*. As (3b) shows, compound stress typically falls on the first element of a compound.

- (3) a. Deze bijen wonen onderGRONDS / [pp onder de GROND].

these bees live under-ground-s / under the ground

b. De ONDERgrond is te hard.

the subsoil is too hard

A similar argument can be given for English: *indoors* shows phrasal rather than compound stress; see (4a). The latter stress pattern we find in (4b), which notably lacks adverbial *-s*. The element *indoor* in (4b) behaves like an attributive adjectival modifier of *event*.

(4) a. We stayed INDOORS. (compare: in the HOUSE)

b. an INdoor event.

If we are right in saying that the "adverbial" expressions in (1)-(2) have a composite syntactic structure, the question arises what the inner structure looks like (section 2) and what grammatical role adverbial *-s* plays in this structure (section 3). It will be proposed that *-s* is an affixal manifestation of the categorial heads  $n^0$  and  $a^0$ . Building on the idea that children are cue-based learners, I will suggest that children's UG-based knowledge of the syntactic structure  $[_{np/AP} n/a [Root]]$  will help them in identifying this hidden bound morpheme (section 4). Section 5 addresses the issue of variation. It turns out that there is inter-dialectal variation as regards the appearance of adverbial *-s*. Section 6 concludes the article. This article focuses on adverbial *-s* in Dutch. The proposed analysis can be extended to the English patterns in (2).

## 2. Two case studies on adverbial *-s*

In section 1, we saw that there are signs of phrasal syntax in adverbial expressions featuring *-s*. In this section, I present two case studies on adverbial *-s* in Dutch. With these two case

studies I hope to show that adverbial *-s* is still an active part of Dutch grammar and not some sort of historical residue. Its active role is, first of all, suggested by its productive use in certain structural environments, and, secondly, by its rule governed behavior. The two types of adverbial expressions I will discuss are given in (5):

(5) a. Jan loopt *zachtjes*.

Jan walks slow-DIM-s

'Jan walks slowly.'

b. Jan loopt *anders* (dan Piet).

Jan walks different-s than Piet

'Jan walks in a different way than Piet does.'

I start my discussion with the pattern *zachtjes* in (5a). As the gloss indicates, three components can be identified in this adverbial expression: the adjective *zacht*, the diminutive morpheme *-je*, and adverbial *-s*. As shown by the ill-formedness of (6a), the appearance of *-s* right after *-je* is obligatory. Furthermore, if *-je* is absent and we have a bare adjective, *-s* cannot appear; see (6b).

(6) a. Jan loopt *zacht-je\*(-s)*.

Jan walks slow-DIM(-s)

b. Jan loopt *zacht(\*-s)*.

Jan walks slow(-s)

'Jan walks slowly.'

Example (7) shows that the adjectival component can be complex; i.e., it can have a phrasal syntax. This is straightforwardly shown by the fact that *zacht* can be accompanied by degree modifiers:

(7) Jan liep [te/zeer/erg/even zacht(jes)].

Jan walked too/very/very/as slow(DIM-s)

Example (8) shows that the free comparative morphemes *meer* 'more' and *minder* 'less' can also modify the adjective:

(8) a. Ze zag [net iets meer bleek-je-s] (dan normaal).

she looked just a-little more pale-DIM-s than normally

b. Jan rijdt nu [minder zacht-je-s] (dan vorige keer).

Jan drives now less slow-DIM-s than last time

It is not possible, however, to have a bound comparative morpheme in combination with *zachtjes*. Both the sequence A-COMPAR-DIM-s in (9a) and the sequence A-DIM-COMPAR-s in (9b) are ruled out:

(9) a. \*Jan rijdt nu [nog zacht-er-tje-s]

Jan drives now even slow-COMPAR-DIM-s

'Jan drives even more slowly now.'

b. ?\*Jan rijdt nu [nog zacht-je-s-er].

Notice, finally, that, while a PP-complement can easily combine with the bare adjective *bang* in (10a), such a combination is less acceptable when we have the adverbial form *bangetjes* (i.e., *bang*-DIM-*s*); see (10b):

- (10) a. [<sub>AP</sub> Bang [<sub>PP</sub> voor mijn kritiek]] kwam Jan schoorvoetend de kamer binnen.  
afraid of my criticism entered Jan reluctantly the room PRT
- b. ?\*[<sub>AP</sub> Bangetjes [<sub>PP</sub> voor mijn kritiek]] .....

The above data suggest that the appearance of adverbial *-s* and the inner morphosyntactic behavior of the adverbial expression is rule-governed. To this it can be added that the formation of the adverbial expression A-DIM-*s* is quite productive; many Dutch adjectives can fill the A-slot, both monosyllabic and polysyllabic ones: *boos-je-s* 'angrily', *stil-etje-s* 'silently', *gevoelig-je-s* 'sensitively', *gezellig-je-s* 'cosily', *et cetera*.

Taking the above-mentioned data as our empirical basis, let us next address the question as to what the internal syntax of these adverbial expressions is. The diminutive morpheme *-je* is, of course, best known for its suffixal attachment to nouns, as in *huis-je* 'little house' and *tafel-tje* 'little table'. Attachment of the diminutive morpheme to the noun does not change the categorial status of the newly built complex object. Thus, *tafel-tje* constitutes a nominal object, just like *tafel*. This is further confirmed by the fact that it can be followed by a plural morpheme (*in casu*: *-s*), just like *tafel*: *tafels*, *tafeltjes*. From this grammatical behavior of the diminutive morpheme, it can be derived that it is a nominal bound morpheme. Having shown this, the next question arises: How does the diminutive morpheme combine with the adjective?

In the spirit of Déchaine and Tremblay's (1996) analysis of the English adverbial suffix *-ly*, given in (11b) (see also Baker 2003), I propose that the nominal bound morpheme *-je* is the head of a noun phrase that is modified by an attributive adjective phrase. Thus:

- (11) a. [NP [AP zacht] [NP -je-s]]  
 b. [NP [AP slow] [NP -ly]]

The phenomena discussed above follow straightforwardly from this structure: First, the attributive modifier (AP) can be accompanied by a degree word (see (7)-(8)). Second, the pattern in (10b) is excluded for the same reason that the ill-formed noun phrase *\*een bange man voor kritiek* (an afraid man of criticism, 'a man afraid of criticism') is, namely: a PP-complement can never be extraposed out of an attributive modifier and be placed in the right periphery of the containing noun phrase. Schematically:

- (12) a. \*[NP [NP [AP t<sub>i</sub> bang] [NP -etje-s]] [PP voor mijn kritiek]<sub>i</sub>]  
 b. \*[een [NP [NP [AP t<sub>i</sub> bange] [NP man]] [PP voor mijn kritiek]<sub>i</sub>]]

Third, the ill-formedness of (9b) follows from the fact that the bound comparative morpheme *-er* cannot attach to a nominal element: \*[[<sub>noun</sub> -je-s]-er]. Compare in this respect the ill-formed pattern *\*een [[<sub>noun</sub> liefhebber]-der<sub>COMPARATIVE</sub>] van jazz music*, where the comparative morpheme is attached to the (derived) noun *liefhebber* 'lover/fan' with the intended meaning: 'a greater lover/fan of jazz music.'

As for the ill-formedness of (9a), I tentatively propose it relates to a constraint quite similar to Myer's (1984) generalization, which states that zero-derived words do not permit the affixation of further derivational morphemes. For example, adjectives derived from passive

verbs by the addition of a phonologically null adjectivizer ( $\emptyset$ ) block *-ly* affixation, as in the ill-formed pattern *\*pleasedly*, which has the more abstract representation in (13a); see Pesetsky (1995:91). The derived structure of the ill-formed surface pattern *zachter-tje-s* in (9a) also features the sequence 'gap + bound derivational morpheme', the only difference with (13a) being that the gap in (13b) is the trace of an adjectival head that has undergone raising to the comparative Q-head *-er*. The overall generalization is then that derivational morphemes cannot combine with a unit that ends with an empty head.

(13) a. [[[[[please<sub>v</sub>] ed<sub>v</sub>]  $\emptyset$ <sub>A</sub>] (\*-ly)]

b. [<sub>NP</sub> [<sub>QP</sub> zacht<sub>i</sub>-er [<sub>AP</sub> t<sub>i</sub>]] [<sub>NP</sub> -tje-s]]

Let me finish this discussion of *zachtjes* with the observation that the English adverbial marker *-ly*, analyzed as a nominal element in (11b), displays the same morphosyntactic behavior as the diminutive morpheme in (11a). First, the attributive AP-modifier can be complex (i.e., contain degree words); see (14a). Second, comparative formation is possibly only with a free comparative morpheme; see (14b). Finally, *-ly*-adverbs typically do not combine with a PP-complement; see (14c).

(14) a. John drove [[too/very/so quick] -ly]. (compare (7))

b. more quickly / \*quick-ly-er / \*quick-er-ly (compare (8)-(9))

c. fearful-ly (\*of Bill) (compare (10b))

Having provided a first analysis of adverbial expressions such as *zachtjes*, let us now turn to the second case study: the adverbial expression *anders* in (5b). I start with some basic observations. First of all, *anders* exhibits properties of a comparative construction: it includes

the bound comparative morpheme *-(d)er* (*an-der-s*) and it can co-occur with the comparative *dan*-phrase ('than'), as in (15):

(15) Jan gedroeg zich [anders dan Piet].

Jan behaved REFL different-s than Piet

'Jan behaved differently from/than Piet.'

Secondly, *-s* is obligatorily present on *anders*. Thus, the *-s*-less form *ander* is excluded in (15). Notice that, in this respect, *anders* behaves differently from other comparative adjectival expressions featuring *-er*:

(16) Jan gedroeg zich [vreemder(\*-s) dan Piet].

Jan behaved REFL stranger(-s) than Piet

'Jan behaved more strangely than Piet.'

Thirdly, the *-s* of *anders* is not an intrinsic part of the adverbial expression. Note, for example, that in its attributive use, as in (17a), it has the form *ander*; i.e., without *-s*.

(17) a. Jan vertoonde [*ander*(\*s) gedrag] (attributive use)

Jan exhibited other(s) behavior

b. Jan gedroeg zich *ander*\*(-s). (predicative use)

Jan behaved REFL different (-s)

Fourthly, as we saw earlier, *anders* is an intrinsically (i.e. lexically) comparative adjective: it licenses a '*dan*-phrase'. At the same time, *anders* can be modified by degree modifiers that are

normally only found with positive degree adjectives. This is illustrated in (18a,b). As shown by (18c), comparative forms that are formed by a synthetic comparative formation rule do not permit modification by *heel erg* 'very much'.

(18) a. Jan loopt [heel erg hard].

Jan walks so very fast

'Jan walks very fast.'

b. Jan loopt [heel erg anders dan Piet].

Jan walks so very different-s than Piet

'Jan walks so differently from Piet.'

c. \*Jan loopt [heel erg harder dan Piet].

Jan walks so very faster than Piet

From the above data, it can be concluded that the adverbial expression *anders* has a comparative meaning but does not display the full set of properties that we find with comparative adjectives that have a rule-based derivation, i.e., a derivation in which the comparative form is derived by moving the adjectival head ( $A^0$ ) to a higher [+comparative] functional head ( $Q^0$ ), as in (19a); see Corver (1997). I propose that *anders* is an adjectival expression whose comparative meaning is lexically specified; i.e. it is an intrinsic part of the lexical semantics of the adjective. Even though (with a trained linguistic eye) the comparative morpheme *-(d)er* is still identifiable in *anders*, it is also clear that this element is no longer felt to be a discrete element within a more complex form *ander*. If it were a discrete item, one would expect there to be a positive form *an* and a superlative form *an-st*, as well. These forms, however, are non-existent.

(19) a. [QP -er<sub>[+comparative]</sub>] [AP vreemd]] (see (16))

b. [QP (heel erg)] [Q<sup>o</sup> [AP anders<sub>[+comparative]</sub>]] (see (18b))

Let me finish this discussion of *anders* with the observation that, in colloquial/dialectal Dutch, we find more examples of comparative-like adverbial expressions that end in *-s*. For example, the form *verders* (furth-er-s) is attested in colloquial/dialectal Dutch. Importantly, this form typically has the meaning: 'in addition to what you have already told me'; see (20a). When it has the meaning 'farther' (i.e., 'more distant/farther away'), *verder* typically does not combine with *-s*.

(20) a. Heb je verder(s) nog nieuws.

have you further(s) any news

'Do you have any news in addition to what you've already told us.'

b. Jan gooide de bal verder(\*s).

Jan threw the ball further(\*s)

'Jan threw the ball further away.'

On the basis of the morphosyntactic behavior of patterns such as *zachtjes* (5a) and *anders* (5b), I hope to have shown that the appearance of "adverbial" *-s* is rule-governed. The next question to be addressed is the following: What is the nature of so-called "adverbial" *-s*?

### 3. Adverbial *-s* as a manifestation of categorial $n^0$ and $a^0$

In Traditional grammar (Royen 1947-1954), adverbial *-s* was analyzed as genitival case. Since genitival case appears on quite a large number of adverbial expressions, it was

considered to be an adverbial marker. I adhere to the original idea that *-s* represents genitival case. With Emonds (1985) and Pesetsky (2013), however, I propose that Case is not a primitive category but rather an affixal realization of a part-of-speech. In other words, Case is a part-of-speech-suffix, or in Emonds's terms: an 'alternative realization' of a categorial head/feature. The question now arises as to what part-of-speech (i.e., category) genitival case is an affixal realization of. In generative-linguistic Case theory of the 1980s (Rouveret and Vergnaud 1980, Chomsky 1986), the assignment of genitival case was associated with the categories N(oun) and A(djective). A noun like *destruction* and an adjective like *proud* assign genitival case to their nominal complement, where genitival case surfaces as a semantically empty preposition *of* (*the destruction of the city*, *proud of John*) or as a bound morpheme *'s* (*the city's destruction*). Under an analysis which takes Case to be a part-of-speech-affix, *'s* is a manifestation of a nominal or adjectival suffix (say:  $N_{\text{aff}}$  and  $A_{\text{aff}}$ ). In (21), the process of genitival case assignment is illustrated for the noun phrase *the destruction of the city*.

- (21) a.  $[_{DP} \text{the} [_{NP} [_{N} \text{destruction}] [_{DP} \text{the city}]]]$       base structure  
       b.  $[_{DP} \text{the} [_{NP} [_{N} \text{destruction}] [_{N_{\text{aff}}}+[_{DP} \text{the city}]]]]]$       assignment of case (= N)  
       c.  $[_{DP} \text{the} [_{NP} [_{N} \text{destruction}] [_{\text{of}}+[_{DP} \text{the city}]]]]]$       spell-out of affixal N

With Pesetsky (2013), I take there to be two ways in which Case can appear on a constituent: (i) syntactic case assignment, as, for example, in (21); (ii) Case as a lexical property. As regards this last way of Case appearance, Pesetsky (2013:8) makes the following statement:

"[...] every element that comes from the lexicon as a noun, determiner, verb or preposition could equally well be described as coming from the lexicon assigned to the corresponding

case-categories. In other words, from the point of view of syntax, every noun can be described as "born genitive", every verb as "born accusative", every determiner as "born nominative", and every preposition as "born oblique".

According to this statement, one should be able to find overt manifestations of genitival Case (i.e., affixal N/A) on nouns and adjectives themselves. I will argue that this is exactly what we find with so-called adverbial *-s*. Adverbial *-s* is the manifestation (spell-out) of the "genitival property" with which N and A are born. But before elaborating on this, I would like to make one more theoretical step. In line with Marantz (1997), Borer (2005) and others, I assume that lexical categories (nouns, adjectives, *et cetera*) have the form f-Root, where f is a categorial head and the Root (henceforth  $\sqrt{\quad}$ ) is unspecified as to category. Thus, the noun *city* has a composite structure:  $[_{nP} n^o [_{\sqrt{P}} \sqrt{city}]]$ . For the above-mentioned approach to Case, this means that genitival case is an affixal  $n^o/a^o$ . This categorial affix can surface on a satellite constituent of the noun through case assignment, or it can surface on  $n^o$  itself (the "n<sup>o</sup>-as-born-genitive" way).

Taking the above as our theoretical framework, let us return to the patterns *zachtjes* and *anders* in (5) and see how we can account for the appearance of *-s*. The first pattern was assigned the structure in (11a), repeated as (22a). Under an analysis in which nouns have the form  $n^o + \sqrt{\quad}$ , the pattern in (22a) can be reanalyzed as (22b):

- (22) a.  $[_{NP} [_{AP} zacht] [_{NP} -je-s]]$   
 b.  $[_{NP} zacht [_{nP} n (= -s) [\sqrt{-je} ]]]$

In (22b), the diminutive morpheme is a root carrying the abstract meaning 'way'. In the spirit of Emonds (1985:162-163), *-je* in (22) can be characterized as a "grammatical noun".

Grammatical nouns, also called "disguised nouns" by Emonds, are an in-between class of nominals; 'in-between' in the sense that they display characteristics of both lexical categories and functional categories. According to Emonds, the closed class of English grammatical nouns includes lexical items such as *self*, *one*, *thing*, *place*, *time*, and *way*, which can be part of more complex expressions such as *him+self*, *no+one*, *some+thing*, *any+place*, *some+times*, and *any+way*. These grammatical nouns are lexical items that are used frequently and whose semantics is "less explicit". The impoverished semantics of grammatical nouns can be easily demonstrated by means of a comparison of the lexical noun *thing*, as in *I bought a nice thing*, and the grammatical noun *thing*, as in *I bought something*. In the former example, *thing* can be replaced by a contentful noun like *bike* or *table*, in the latter example such a replacement is impossible. Notice also that the lexical noun *thing* can be pluralized (*I bought some nice things*), while the grammatical noun *thing* cannot (*I bought something(\*s) nice*).

Taking *-je* in *zachtjes* to be a grammatical noun, let us return to the question as to what accounts for the obligatory appearance of "adverbial" *-s*, which we have reinterpreted as an affixal  $n^0$ . I assume that, just like other roots that combine with  $n^0$ , the grammatical noun *-je* raises to  $n^0$ , creating the amalgam  $[-je+n^0]$ . Suppose now that, due to the "morphological weakness" of the grammatical noun *-je*, this complex head needs "nominal support" from a dummy element. This nominal support is provided by spelling out the genitival property with which  $n^0$  is born; i.e.  $n^0$  is spelled out affixally, yielding  $[-je+n^0 (= -s)]$ . In a way, spelling out  $n^0$  as *-s* makes the "nouniness" of the amalgam visible and recoverable. The *-s*-less pattern *zacht-je* in (6a) is ill-formed because the grammatical noun *-je* is too weak to function on its own as the nominal head of the projection nP.

Let us now turn to the pattern *anders* in (5b). Recall from section 2 that *anders* was analyzed as an intrinsically (i.e., lexically specified) comparative form; that is, the

comparative meaning is an intrinsic part of *ander*, and *ander* is not lexically decomposable into an adjectival part and a comparative part. With the comparative feature--strictly speaking, a functional property--being part of the lexical item *ander*, it does not seem implausible to analyze *ander* as a grammatical adjective in the sense of Emonds (1985). Just like *-je*, I take *ander* to have undergone head movement to the categorial head, *in casu*  $a^0$ , forming the amalgam  $[[ander]+a^0]$ . Being a grammatical adjective, *ander* is too weak to act as an independent externalized adjectival head. Also in this case, support is needed in the form of externalization of the "genitival property" with which  $a^0$  is born; i.e.,  $a^0$  surfaces affixally as *-s*:  $[[ander]+a^0 (= -s)]$ .

The externalization of the genitival property with which  $n^0/a^0$  are born has a last resort flavor: externalization as a part-of-speech suffix, viz. *-s*, must happen in order to mark the nominal/adjectival nature of the amalgam  $[Root + n/a]$ , where Root equals a grammatical noun or adjective. Another structural environment where externalization of  $n^0$  as *-s* may be expected is one in which the root is phonetically empty; that is, an ellipsis environment. Consider, for example, the "adverbial" expression *ineens* (*in+one+-s*, 'at once/all of a sudden') in (1). I propose it has the structure in (23a). The categorial head  $n^0$  externalizes as *-s* in order to make the nominal nature of the nP-complement of the preposition *in* recoverable. When the root is overt and "substantive enough" (i.e., not a grammatical noun), *-s*-support is not needed, and for reasons of economy, excluded; see the ill-formed pattern *in een keer(\*-s)* in (23b).

- (23) a.  $[_{PP} \text{ in } [_{QP} \text{ één } [_{nP} \text{ n } (= -s) [ \sqrt{\emptyset} ] ] ] ] ]$   
 b.  $[_{PP} \text{ in } [_{QP} \text{ één } [_{nP} [ \sqrt{\text{keer}+n} ] (= *-s) [ \sqrt{\text{keer}} ] ] ] ] ]$

Possibly, the presence of the functional Q-head *één* also plays a role in blocking the appearance of *-s* in (23b). Being a functional head in the extended nominal projection, the

nominal nature of the entire projection is recoverable on the basis of this head. I should add that presence of *één* cannot be a sufficient condition for expressing the nominal nature of a projection. If it were, the ellipsis pattern *\*in één* (meaning 'at once') should be fine, but it is not.

Recall at this point the adverbial expression *ondergronds* 'underground' in (3a). Here *-s* must be spelled out, as in (24a), in spite of the presence of *grond*. As was shown in (3b), the pattern *onder de grond* does not exhibit "adverbial" *-s* on *grond*; see (24b). I propose that this is due to the presence of the DP-layer, specifically the functional D-head *de*. The nominal flavor of the entire projection is marked by *de*. Consequently, the last resort *-s*-insertion operation need not take place and, therefore, does not take place.

- (24) a. [<sub>PP</sub> onder [<sub>NP</sub> [<sub>√</sub>grond+n (= -s)] [<sub>√</sub>grond]]] (ondergronds)  
 b. [<sub>PP</sub> onder [<sub>DP</sub> de [<sub>NP</sub> [<sub>√</sub>grond+n (\*-s)] [<sub>√</sub>grond]]]] (onder de grond)

#### 4. A note on adverbial *-s* in Dutch child language

So far I have tried to show that adverbial *-s* is still an active part of Dutch grammar. Its appearance is rule-governed and its use is quite productive. With its affixal status, *-s* is "glued" on a host and may therefore be hard to identify. Another factor that might contribute to its hidden character is its occurrence at the end of a pattern. The hidden nature of adverbial *-s* raises the question how children are able to acquire this element of Dutch grammar. Discovering the grammar of adverbial *-s* purely on the basis of its appearance in E-language strings of elements seems like a very difficult task. Under an approach in which the language learning child scans the utterances in his/her linguistic environment for designated structures or cues (i.e., pieces of I-language structure) prescribed by UG, the identification and

acquisition of "adverbial" *-s* seems more straightforward (Dresher 1999, Lightfoot 1999). The child's UG-based knowledge of the structure [<sub>nP/aP</sub> n/a [RP]] and his UG-based knowledge that n/a is born genitive help him/her in identifying adverbial *-s* as a manifestation (i.e. overt expression) of the categorial heads n/a in the structure [<sub>nP/aP</sub> n/a [RP]].

Since a detailed discussion of the acquisition of adverbial *-s* falls beyond the scope of this article, I restrict myself to giving some examples of patterns featuring adverbial *-s* in Dutch child language; data drawn from the Van Kampen corpus (CHILDES):

- (25) a. (i)k ook *es* die eten. (2;0.19)  
 I also once those eat  
 'I also want to eat/try these.'
- b. ik ga *sakjes* terugbreng. (3;0.18)  
 I go soon-DIM-s return  
 'I will also return it soon.'
- c. nee kwil t *andersom*. (3;3.03)  
 no I-want it other-s-around  
 'No, I'd like to have it the other way around.'
- d. nee, nee dan gaan we *eventjes* sgoot. (3;8.15)  
 no no then go we just-DIM-s ??
- e. nee, dat is *nietes*! (3;11.16)  
 no that is not-e-s  
 'No, that's not true!'

These examples show that patterns featuring "adverbial" *-s* are present in the child's output at a quite young age.

(25a) contains the temporal adverb *es* 'once' (pronounced /əs/), (25b,d) exemplify the pattern A+DIMINUTIVE+-s, (25c) displays the pattern *andersom*, where adverbial -s occurs at the end of *ander*, and (25e), finally, shows the pattern *nietes*. The meaning of the latter corresponds to 'not true' (Dutch: *niet waar*), which suggests that -*es* (pronounced /əs/) stands for an adjectival expression, viz., aP. The underlying structures of these patterns are given in (26). In line with the analysis proposed in section 3, I assume that the root moves to the categorial head. I take -*e* (i.e. schwa) in (26a) and (26d) to be a "filler" sound.

- (26) a. [<sub>NP</sub> n (= -s) [<sub>√</sub>-e<sub>TIME</sub>]]  
 b. [<sub>NP</sub> sak [<sub>NP</sub> n (= -s) [<sub>√</sub>-je ]]]  
 c. [<sub>AP</sub> a<sup>o</sup> (= -s) [<sub>√</sub>ander<sub>[+comparative]</sub>]]  
 d. [<sub>AP</sub> niet [<sub>AP</sub> a (= -s) [<sub>√</sub>-e]]]

## 5. A note on adverbial -s and variation in grammars

Adjectives can be used attributively or predicatively. In (27a), for example, *zachte* is used attributively; it modifies the noun *manier*. In (27b), *zacht* is used predicatively; it directly modifies the verb (phrase) *landde*. What about *zachtjes* in (27c)? Although the entire expression *zachtjes* has a predicative relationship with *landde*, the adjective *zacht* functions as an attributive modifier of *-je*; see (22b).

(27) Het vliegtuig landde ....

the plane landed

a. op [<sub>DP</sub> een [<sub>AP</sub> zachte] manier]

in a gentle way

b. [<sub>aP</sub> zacht].

gently/softly

c. zachtjes

gentle-DIMINUTIVE-s

Thus, phrases that are used adverbially and look quite similar at the surface--*in casu* (27b) and (27c)-- may have a quite different internal syntax. Another striking illustration of this is given in (28), where both *onverwacht* and *onverwachts* are acceptable for me.

(28) Jan kwam onverwacht(-s) thuis.

Jan came unexpected(-s) home

'Jan came home unexpectedly.'

I propose that bare *onverwacht* is an adjectival expression (i.e., aP) that is used adverbially. The pattern *onverwachts*, however, is arguably a nominal expression that is used adverbially. Within that nominal expression, *onverwacht* functions as an attributive modifier of a noun that surfaces in a minimal way, namely through the affixal realization of n<sup>0</sup> as -s; see (29) and compare (23a). I assume that the empty root carries the abstract meaning 'way'.

(29) [<sub>nP</sub> [<sub>aP</sub> onverwacht] [<sub>nP</sub> n (= -s) [<sub>√</sub>∅ ]]]

It turns out that dialectal varieties of Dutch sometimes differ in the adverbial forms they use. For example, Standard Dutch uses the -s-less form *mondeling* in a sentence like (30), while Kempenland Dutch, a southern variety, uses the form *mondelings* in the same context (De Bont 1958):

(30) Jan lichtte het mondeling / mondelings toe.

Jan explained it orally PRT

Schuringa (1923) gives the forms *ainlieks* 'finally' and *eerlieks* 'honestly' for Veenkoloniën Dutch (Northern Dutch), where present-day Standard Dutch uses the *-s*-less forms *eindelijk* and *eerlijk*, respectively.

Interestingly, even though *-s*-bearing forms such as *mondelings* 'orally' and *eindelijks* 'finally' are ruled out in Standard Dutch, we do find patterns in Standard Dutch that feature the bound morpheme *-s* at the end, such as *dagelijks* (day-*elijk-s*, 'daily'), *jaarlijks* (year-*lijk-s*, 'yearly'), *beurtelings* (turn-*eling-s*, 'in turn'), *ruggelings* (back-*eling-s*, 'backwards'). Possibly, this *-s* is also a manifestation of an underlying categorial head. The fact that these forms can be used attributively (e.g., *het jaarlijk-s-e feest*, the yearly-*s*-AGR party, 'the annual party') suggests that *-s* in these patterns is a manifestation of  $a^0$ . I leave an in-depth analyses of these patterns for future research.

In sum, Dutch varieties display variation as regards the presence of "adverbial" *-s*. It was proposed that these surface differences are the result of differences in the syntactic structures that are used to express a certain adverbial meaning.

## 6. Conclusion

This article examined the nature of what is traditionally called 'adverbial *-s*'. I proposed that this bound morpheme is an affixal manifestation of the categorial heads  $n^0$  and  $a^0$ , and that its appearance is not arbitrary and unpredictable, but rather rule-based and, therefore, predictable. I suggested that (UG-based) knowledge of nP and aP may help the child in identifying (in combination with knowledge of Case theory) and acquiring these categorial

externalizations. I further argued that surface expressions with the same "adverbial meaning" may differ from each other as regards their underlying internal syntax. This structural difference is reflected at the level of externalization: an *-s*-bearing *versus* an *-s*-less form. In conclusion: "adverbial" *-s*: so awks but so natural!

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