

One module, different levels of merge: [[AN]N] compounds in Dutch

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1. Summary

We provide further empirical evidence from [[AN]N] compounds in Standard Dutch (e.g. [[*oude_A* *heren_N* *club_N*] ‘old gentlemen’s club’) for the following two important theoretical theses. Firstly, inflection is part of syntax (contra the Strong Lexicalist Hypothesis and Ackema & Neeleman 2004 and pro Distributed Morphology and Nanosyntax). Secondly, the superficial distinction between morphology and syntax is a matter of the level at which merge applies: what we traditionally call morphology is syntax below the functional domain.

2. Properties of [[AN]N]s in Standard Dutch

[[AN]N] compounds in Dutch are productive. The left-hand noun can be either singular (as in (1)) or plural (as in (2)). They further consistently lack a D-layer, as shown in (3).

- (1) *kale-kat-adoptie* (2) *kale-kat-en-adoptie* (3) **een de-kale-kat-adoptie*
hairless-cat-adoption hairless-cat-PL-adoption a the-hairless-cat-adoption
‘adoption of hairless cats’ ‘adoption of hairless cats’

They share this last property with [[AN]N] compounds in English. This has been attributed to the fact that the left-hand part of a compound cannot be referential (Borer 2009a, Harley 2009).

3. Part #1: Inflection is syntax

3.1 Observation First note that the adjective in the standard Dutch [[AN]N] inflects, (see (4)). Note further that there is a notable exception to the productivity of [[AN]N] compounds: the left-hand N cannot be a neuter singular noun. Compare the following examples. (4) shows a licit [[AN]N] with a common noun, (5) shows an ungrammatical one with a neuter noun. Note that the ungrammaticality of (5) is due to the presence of the adjective, as (6) is fine.

- (4) *vers-e-melk_{COMMON}}-verkoper* (5) * *sterk-ijzer_{NEUTER}}-verkoper* (6) *ijzer-verkoper*
fresh-INFL-milk-salesman strong-iron-salesman iron-salesman
‘salesman of fresh milk’

3.2 Analysis We propose that the contrast between (4) and (5) is related to sensitivity of the adjectival inflection to definiteness. Standard Dutch adjectives show default inflection (in the form of a schwa) in all but one context: if the noun is neuter singular and the DP is indefinite the inflection is zero. Following Sauerland (1996), we take this to mean that this zero affix has the feature specification [N. SG. INDEF.]. We assume that the definiteness of the DP is encoded in the D-layer and that default agreement is not available for neuter nouns. As a result the inflection of neuter nouns is dependent on the presence of the D-layer. Given that this layer is absent in [[AN]N]s (see (3)), the inflection mechanism is defective and the derivation crashes.

3.3 Theoretical relevance [[AN]N] compounds show that the inflection on the adjective depends on the availability of a syntactic layer, the D-layer. This implies that the inflection is the result of a feature checking mechanism in the syntactic component

4. Part #2: Morphology is low syntax

4.1 Observation Above we have noted that the left-hand noun cannot be neuter singular. There is one class of exceptions to this generalization: if the [AN] constituent is an idiom, [[AN]_{NEUTER.SG}]N] is licit. Compare the ungrammatical, non-idiomatic example in (7) with the idiomatic one below. (9) shows that the [AN] phrase in (8) is idiomatic. (10) shows that idiomatic [AN]-s with uninflected adjectives are not restricted to neuter singular nouns (i.e. *ijzer* ‘iron’). So it is not the feature specification of N that leads to the absence of inflection on A.

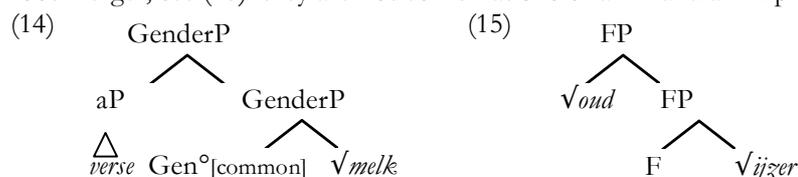
- (7) **sterk-ijzer-verkoper* (8) *oud-ijzer-verkoper* (9) *oud ijzer* (10) *groot-moeder*
strong-iron-salesman old-iron-salesman old iron great-mother_{COMMON}
‘salesman of iron waste’ ‘iron waste’ ‘grandmother’

Idiomatic [AN] phrases have the following properties (which set them apart from non-idiomatic ones): (i) they cannot be split (10), (ii) the A cannot be coordinated with another A (11), (iii) the A can be repeated resulting in a meaningful, non-idiomatic modification (12), (iv) the A cannot be modified by a degree modifier (13). ((10), (11) and (13) do not necessarily refer to waste.)

- (10) # *oud verroest ijzer* (11) # *verroest en oud ijzer* (12) *oud oud ijzer* (13) # *erg oud ijzer*
old rusty iron rusty and old iron old old iron very old iron
‘old (lit.) rusty iron’ ‘rusty and old (lit.) iron’ ‘old iron waste’ ‘very old (lit.) iron’

4.2 Analysis We propose that non-idiomatic and idiomatic [AN] parts of [[AN]N]s differ structurally. The non-idiomatic ones are NPs with functional material (such as gender and

number marking), but without a D-layer, see (14). The idiomatic ones, on the other hand, involve root merger, see (15): they are not combinations of an A and an N proper; they are just roots.



From (14) it follows that the adjective in non-idiomatic compounds requires adjectival inflection and allows for plural marking (see 2); the structure is a partial NP and hence has the characteristics of an NP. From (15) it follows that the alleged [AN] phrase in idiomatic combinations shows no NP characteristics. The first root does not require adjectival inflection, since it is a root, and not an A. As such, the presence of the neuter left-hand noun does not lead to a crash (recall the contrast between (7) and (8)). It further follows that the roots cannot be split and that the higher root cannot be coordinated with an A (as roots and As are of different categories). We adopt Borer's (2009b) view that functional projections block idiomatic meaning. (For example, past tense and definiteness are not flexible meaningwise.) It then follows immediately that the structure in (14) cannot be idiomatic: it contains functional projections.

5. Why root merger necessarily leads to idiomaticity

5.1 Explanandum Note that although the analysis up till now successfully derives the possibility for the structure in (15) to be idiomatic, it does not yet derive the necessity of this idiomaticity. The fact that functional projections block idiomaticity predicts what happens in the domain of functional projections, it says nothing about what happens below the functional domain: it may be either idiomatic or non-idiomatic. In principle, then, it should be possible to combine two roots in order to get a compositional reading, as in (16). However, this is not borne out. It is a well-known observation that there are no non-compositional [AN]-s in standard Dutch which have the syntactic properties of the structure in (15) (Booij 2002, Ackema & Neeleman 2004:62).

(16) * blauwjurk (17) blauwhelm (18) een blauwe jurk (19) een blauwe helm
 blue.dress blue.helmet a blue dress a blue helmet
 'UN peacekeeper' 'a blue dress' 'a blue helmet'

5.2 Ackema & Neeleman's account Ackema and Neeleman (2004) derive this contrast from blocking between modules: they claim that syntax and morphology are two separate submodules of narrow syntax and that syntax blocks morphology. In other words, if syntax can successfully derive a structure, morphology is blocked from doing so. Given that syntax can derive (18), morphology is blocked from deriving (16). However, if the morphological construction differs semantically from the syntactic one, blocking fails (see (17) vs. (19)).

5.3 Alternative analysis We adopt the view that the category of a root is defined by functional projections (Borer 2005, De Belder 2011) (and not by a categorial head or lexical specifications). We further assume that APs are defined by functional projections of degree (Corver 1997, Kennedy 1999). We take the notion *adjective* to be short for 'a relation between a predicate as expressed by a root and a degree established by means of functional projections'. Roots thus depend on projections of degree in order to function as adjectives. This means that APs depend on functional structure for their interpretation. Root mergers lack such functional material and hence the adjectival meaning of roots is not available. The only possible meaning is a stored and hence idiomatic meaning. The remaining properties of idiomatic [AN]s now also follow: the As cannot be modified by degree words because there is no projection to host this material (see (13)) and the combination with proper adjectives is possible because they do not express the same meaning as the A in the idiomatic [AN]-s. Crucially, our analysis derives the 'blocking' effect from the level at which certain syntactic mechanisms apply, i.e. before or after functional material is merged and not on separate modules.

6. Conclusion Time permitting we will discuss [AN]N-s in Middle Dutch. Adjectival inflection is sensitive to the case position of the noun in this stage of Dutch. Interestingly, we have found [AN]N]s in which the adjective reflects the case of the [AN]N], again reinforcing the idea that inflection is dependent on syntax.