## Little d° exists: Dutch has referential compounds

**Main claim:** It is generally assumed that non-heads of compounds cannot be referential (i.e. they lack a D-layer). I argue that this assumption is false: Dutch has compounds with a referential non-head. I propose that these compounds contain a little d° head. In the talk I will contrast these compounds with modificational compounds and with non-compounds: the Dutch -s possessive and Dutch referential construct states.

**Background** Borer (2011) argued that Hebrew N-N concatenations could either be constructs or compounds: constructs do not show syntactic head incorporation, whereas compounds do. The non-head could be either modificational or referential: modificational non-heads occupy a classifier position, the referential ones are situated in the D-layer. Three of the four possible combinations are realised in Hebrew: there is the modificational compound, the modificational construct and the referential construct. The fourth possibility, referential compounds (i.e. compounds with a referential non-head), are generally hypothesised not to exist cross-linguistically. I present empirical evidence from Dutch that they do exist: Dutch has compounds with a referential non-head.

**Main data** The so-called linking element of the Dutch compound is determined by the root in the non-head and can be zero, -en- or -s- (De Belder 2017, to appear). Now, some roots may surface with an -s-, even thought they usually select zero or -en-. Such roots refer to a (contextually) unique entity (see Lyons 1999 on uniqueness and definiteness).

## **Modificational compounding**

## **Referential compounding**

	<u></u>	-8		
zon-en-bank	sun-EN-bench '	tanning bed'	zon-s-hoogte	sun-S-height 'solar altitude'
maan-en-stels	el 'moon-EN-syste	em 'lunar system'	maan-s-verduistering	moon-S-eclipse 'lunar eclipse'
naam-en-lijst	name-EN-list	'list of names'	naam-s-wijziging	name-S-change 'name change'
kreeft-en-soep	lobster-EN-soup	'lobster soup'	Kreeft-s-keerkring	lobster-S-tropic 'Tropic of Cancer'
jaar-beurs	year-fair	'trade fair'	nieuwjaar-s-feest	new.year-S-party 'New Year's party'
pieter-man	pete-man	'weever fish'	Pieter-s-zoon	Pete-S-son (family name)
moeder-taal	mother-language	'mother tongue'	moeder-s-kindje	mother-s-child 'mother's baby'
dag-deel	day-part	'part of the day'	zondag-s-mis	Sunday-s-mass 'Sunday mass'

The referential compound always surfaces with an -s- in Dutch (but not all Dutch compounds with an -s- are referential compounds.)

The non-head is referential: arguments. #1: the non-heads belong to a specific group; they are the type of lexemes Longobardi (1994) identified as typically subject to N-to-D raising: proper names (Pieter 'Pete'), kinship names (moeder 'mother'), names of days of the weeks (zondag 'Sunday') Bank holidays (Nieuwjaar 'New Year'), unique entities (zon 'sun') and contextually unique entities (naam 'name'). These roots have the proper semantics to be interpretable when subject to N-to-D raising. #2: The non-head has unique reference (albeit contextually 'name' or universally 'sun') within the compound: in Kreeftskeerkring 'Tropic of Cancer' the 'lobster' is universally unique and it is a referential compound. Kreeftensoep 'lobster soup', in contrast, can contain just any lobster (or even no lobster at all), this is a modificational compound. #3: In the absence of uniqueness, the referential compound is excluded: compare \*ster-s-hoogte 'star-s-height' versus zon-s-hoogte 'solar altitude'. #4: Not only the uniqueness, but the referentiality (i.e. the existence in the context of discourse) itself is implied. Compare the licit dialogue with the modificational compound in (1) with the pragmatically unacceptable dialogue with a referential compound in (2):

- (1) A: We kopen een **hond-en-mand**.
  - B: Oh, heb jij een hond?
  - A: Nee, we gaan die gebruiken voor onze kat.
  - B: Ja, je hebt gelijk, dan ligt ze wat ruimer.
- (2) # A: We organiseren een verjaardag-s-feest.
  - B: Oh, is er een verjaardag?
  - A: Nee, het is eigenlijk voor een huwelijk.
- 'A: We are buying a dog bed.
  - B: Oh, do you have a dog?
- A: No, we will use it for our cat.
- B: Yes, I see, she'll have more space.'
- 'A: We are organising a birthday party.
- B: Is there a birthday coming up?
- A: No, it is actually for a wedding.

B: Ja, je hebt gelijk, dat is vast goedkoper. B: Yes, I see, that is probably cheaper.'

Similarly, a motherless child can have a *moedertaal* 'mother tongue' (modificational compound), but they cannot be a *moederskindje* 'mother's baby' (referential compound).

They are compounds: arguments. #1: Head incorporation results in word-hood. Indeed, the compounds are lexicalised (and, as a result, listed as existing words in the native speaker's memory and in dictionaries). In this sense, they contrast, for example, with Dutch s-possessive constructions (moeders auto 'mother's car) which are not. #2: The compounds qualify for word-hood phonologically: they receive compound stress, i.e. stress falls solely on the non-head (moederskind). They contrast again with s-possessives which receive the stress of a syntactic constituent (moeders auto). #3: The compound qualifies for word-hood in the sense that it cannot be interrupted by other words: an intervening adjective is excluded. (referential compound: vaderszijde 'father's side (of the family)', \*vaders arme zijde (father-s poor side) 'Intended: father's side (of the family), which is poor', compare the s-possessive: vaders goede karakter 'father's good personality').

**Analysis** I propose that these compounds contain a word-internal head that is both marked for nominality and for a feature 'uniqueness' (i.e. unique referentiality in the discourse): I call it little d°. Unlike D°, d° does not introduce arguments. The root of the non-head merges with d°, incorporates (i.e. head moves) into d° and this complex head subsequently incorporates into the head root (cf. Mithun 1984 and Harley 2009 on compounding.) In Dutch, little d° is realised as -s-. The larger significance of this analysis is that we begin to map the kind of functional heads that can be contained within a compound, an evolution parallel to the insights we gained into the functional domain of the DP (e.g. Abney 1987, Ritter 1991).

**Movement to D in -s possessives and compounds** Phrasal syntax versus word-hood is not the only difference between -s possessives and referential compounds. Possessors in the s-possessive aer always roots that can also move to D in other argument positions. The compounds do not show this restriction, a possible unique interpretation for the root suffices:

(3) a.\* Ik zie maan. b. Ik zie de maan. c.\* maans zachte licht d. maansverduistering I see moon I see the moon moon's soft light moon-s-eclipse 'I see the moon.'

Now, it is a long-standing problem why some DPs that arguably involve proper name semantics do not show N-to-D movement, but rather show an overt determiner (e.g. the moon or The Bronx and not \*Moon or \*Bronx). Borer (2005:84) argues the problem must be extra-syntactic. Such roots often belong to specific semantic fields (e.g. rivers in Dutch). The present data point at semantics as well: the determiner in D° is stored idiomatically. The relevant roots do move to d° so there is no ban on movement to a referential layer for these roots. Given that d° is not D°, stored idiomatic information for D° is simply not relevant for d°. More generally, it makes sense that word-hood is a different domain for meaning assignment than argument-hood: both syntactic domains can be idiomatic, but they are clearly different semantic domains. It is then predicted that a stored idiomatic limit on the structure of a syntactic argument does not affect a compound. **During the talk,** I will embed the discussion of the referential compound in an overview of similar structures: I will compare it in depth with modificational compounds on the one hand and with the -s possessive and Dutch referential construct states on the other.

References Abney, S. (1987) The English noun phrase in its sentential aspect. Doct. diss., MIT ♦ Borer, H. (2005) In Name Only. Oxford: OUP. ♦ Borer, H. (2011) Afro-Asiatic, Semitic: Hebrew. In: Lieber & Štekauer (eds.) Oxford Handbook of Compounding. Oxford: OUP. ♦ De Belder, M. (2017). The root and nothing but the root: primary compounding in Dutch. Syntax. 20:2, pp.138-169. ♦ De Belder, M. (accepted) Linking elements: a case study on Dutch. Ackema P., Bendjaballah S., Bonet E. & Fábregas A. (eds.) The Wiley Blackwell Companion to Morphology. Hoboken: Blackwell-Wiley Publishing. ♦ Harley, H. (2009) Compounding in DM. In Lieber, R. & P. Štekauer (eds.) The Oxford handbook of compounding. Oxford: OUP. ♦ Longobardi, G. (1994) Reference and Proper Names. LI 25:609-665. ♦ Lyons, C. (1999) Definiteness. Cambrdige: CUP. ♦ Mithun, M. (1984) The Evolution of Noun Incorporation. Language 60:4, 847-894. ♦ Ritter, E. (1991) Two functional categories in Noun Phrases: evidence from Modern Hebrew. In: Rothstein, S. (ed.) Perspectives on Phrase Structure: heads and licensing. San Diego: Academic Press.