Het verjaardagscadeau ‘the birthday gift’:
Referential compounding in Dutch

Marijke De Belder

1. Introduction
In honour of the seventieth birthday of Professor Hagit Borer, I would like to give her something we both hold near and dear to our hearts: a compound. More specifically, I hereby dedicate to her the newly discovered Dutch compounding type which I call the r-compound, as exemplified in (1):

(1) verjaardag-s-cadeau
    birthday-s-gift
    ‘birthday gift’

The referential compound is the fourth logical combination in Borer’s (2011) classification, but it was assumed to be non-existent. Borer (2011) argues, on the basis of Hebrew data, that N-N concatenations could either be constructs or compounds: constructs do not show syntactic head incorporation, whereas compounds do. Furthermore, the non-head could be either modificational or referential, a semantic distinction which is derived from a syntactic difference: modificational non-heads occupy a classifier position, the referential ones include a determiner layer. Of the four possible combinations three were argued to be realised in Hebrew: there is the modificational compound, the modificational construct and the referential construct. I aim to show that the fourth logical possibility occurs in Dutch. Compounds of the type verjaardagscadeau ‘birthday gift’ are referential compounds and thus realise the fourth possible cell in Table 1:

Table 1: an inventory of possible N-N concatenations

<table>
<thead>
<tr>
<th>Modificational Non-Head</th>
<th>Referential Non-Head</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct</td>
<td>m-construct (Borer 2011)</td>
</tr>
<tr>
<td>Compound</td>
<td>(m)-compounding (Borer 2011) &amp; Dutch nominal compounding (De Belder to appear)</td>
</tr>
</tbody>
</table>

The article is structured as follows. Section 2 contrasts the referential compound with other types of primary compounding in Dutch. Section 3 argues that the non-head of the referential compound indeed has referential properties. Section 4 contrasts the compound with the -s- possessive and section 5 discusses what we learn from these compounds about what licenses N-to-D movement. Section 6 concludes.

2. Referential compounds versus other Dutch primary compounding types
De Belder (2017) and De Belder (to appear) identify two major Dutch primary compounding types: those of which the non-head is a bare root (De Belder 2017) and those for which the non-head merges with a classifier head (De Belder to appear). The non-head of the bare root compound can be associated with any category and never merges with an overt ‘linking element’.
The non-head of the classifier type, in contrast, merges with a nominal classifying projection. It thus invariably gets a nominal interpretation. This type is perhaps the Dutch counterpart of what Borer (2011) identified as genuine compounding in Hebrew. The type is easily recognised by the presence of a so-called linking element -s- or -en- (NCM = nominal compound marker, i.e. the “linking element”):

(3) a. peer-en-boom b. varken-s-hok
tree-NCM-pear pig-NCM-pen
‘pear tree’ ‘pig’s pen’

I argued that this ‘linking element’ (a misnomer!) realises the functional head of nominal classification. Furthermore, I pointed out that nominal classifying heads can in principle be realised by null morphemes as well and I argued there is actually dialectal evidence that this indeed happens in Dutch, probably also in the standard language. The reasoning is rather complex and lengthy, so I refrain from repeating it here. According to the reasoning described there, the following compounds could be relevant examples (see De Belder to appear).

(4) a. siroop-fles b. klei-grond c. wol-draad
syrup-bottle clay-soil wool-yarn
‘syrup bottle’ ‘clay soil’ ‘wool-yarn’

As a result, the classifier head, I argued, can be realised by means of ∅, -s- [s] or -en- [ǝ(n)]. Compounds of this type with a null marker are at the surface of course indistinguishable from compounds with a bare root as their non-head. It is an unlucky empirical consequence I have learned to live with.

The non-head of the classifying (i.e. modificalional) compounding type selects the classifying head and its exponent. One can thus expect a quite regular selection between the non-head’s lexeme and its classifying exponent of choice (∅, -s- or -en-) (see De Belder to appear for a more nuanced discussion):

shutter-NCM-cat food-NCM-tail box-NCM-cat
‘cat flap’ ‘cat food’ ‘cat tail’ ‘cat litter box’

(6) a. ezel-s-dracht b. ezel-s-bruggetje c. ezel-s-oor
donkey-NCM-pregnancy bridge-NCM-diminutive ear-NCM-donkey
‘long pregnancy’ ‘mnemonic’ ‘dog-ear’

The present article, however, draws attention to the fact that sometimes non-heads occur with an -s-, even though they would typically be restricted to bare root compounding or select zero marking or -en- as a classifying compound. I argue that when these non-heads are bare roots or when they select their typical exponent of the classifying head (here zero or -en-), they are modificalional compounds, if they select the unexpected -s-, they are referential compounds. This results in the following inventory for Dutch compounds:
Table 2: an inventory of Dutch primary compounding

<table>
<thead>
<tr>
<th>bare root compounding</th>
<th>noun class marking compounding</th>
<th>referential compounding</th>
</tr>
</thead>
<tbody>
<tr>
<td>“linking element”?</td>
<td>none: the non-head is a bare root</td>
<td>$\emptyset$, [s] or [ə(n)]</td>
</tr>
<tr>
<td>modificational or referential?</td>
<td>modificational</td>
<td>referential</td>
</tr>
</tbody>
</table>

These three types are illustrated in the following examples:

(7) a. kreeft-woord  
lobster-word  
‘palindrome’  
[bare root c.]

b. kreeft-en-soep  
lobster-EN-soup  
‘lobster soup’  
[noun class marking c.]

c. Kreeft-s-keerkring  
lobster-s-tropic  
‘Tropic of Cancer’  
[referential compound]

d. Pieter-baas  
Peter-boss  
‘black Pete’  
[referential compound]

e. Pieter-man  
Peter-man  
[referential compound]

So, referential compounds can be recognised by the appearance of an -s- where it is not immediately expected. I now discuss this in some more detail. De Belder (to appear) argued that non-heads with the semantics of kinship names and proper names are probably always bare root compounds:

(8) a. moeder-melk  
mother-milk  
‘breast milk’

d. Pieter-baas  
Peter-boss  
‘black Pete’

e. Pieter-man  
Peter-man  
ancient coin with the image of Saint-Peter/
name of a certain fish (Trachinus draco)

However, one does find instances of kinship names and proper names followed by an -s- in Dutch compounding:

(9) a. moeder-s-kind  
‘child too dependent on the mother’

b. vader-s-zijde  
‘father’s side of the family’

c. Pieter-s-zoon  
(Peter-s-son)  
(name of a certain fish (Trachinus draco))

I will argue that these compounds are referential compounds.

Similarly, the Dutch roots dag ‘day’ and jaar ‘year’ typically do not select a ‘linking element’, either because they invariably occur in bare root compounding or because they are instances of noun class marking compounds which select a zero exponent of noun class marking (I am principally unable to tell):

(10) a. dag-deel  
‘part of the day’

b. jaar-beurs  
‘trade fair’

c. jaar-balans  
‘annual balance sheet’

d. jaar-getijde  
‘season’

Yet, again, one does find instances of exactly these roots selecting an -s-:
Again, the claim is that they are referential compounds.

Then there are noun class marking compounds of which the non-head selects -en- to realise the noun class marking:

(12)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>sun-EN-bench</td>
<td>lobster-EN-soup</td>
<td>name-EN-list</td>
<td>moon-EN-system</td>
</tr>
<tr>
<td>‘tanning bed’</td>
<td>‘lobster soup’</td>
<td>‘list of names’</td>
<td>‘moon system’</td>
</tr>
</tbody>
</table>

Yet, again, one does find instances of these roots selecting an -s-, which I claim to be instances of referential compounding:

(13)

<table>
<thead>
<tr>
<th>a. zon-s-hoogte</th>
<th>b. Kreeft-s-keerkring</th>
<th>c. naam-s-wijziging</th>
<th>d. maan-s-verduistering</th>
</tr>
</thead>
<tbody>
<tr>
<td>sun-S-height</td>
<td>Cancer-S-tropic</td>
<td>name-S-change</td>
<td>moon-S-eclipse</td>
</tr>
<tr>
<td>‘solar altitude’</td>
<td>‘Cancer Tropic’</td>
<td>‘name change’</td>
<td>‘lunar eclipse’</td>
</tr>
</tbody>
</table>

To be entirely clear, I do not aim to argue that all instances of Dutch compounds with an -s- are referential compounds. As can be deduced from table 2, I maintain the claim that the -s- can be a realisation of a nominal classifying head as well. As a consequence, I believe it is probably so that there are compounds which select both the -s- as modificational compounds and as referential compounds. It is another instance of an unlucky homophony in Dutch compounding, horresco referens.

3. The referentiality of the non-head

The non-referentiality of the non-head is often taken to be a defining criteria of compounding (see e.g. Borer 2005a:84; Borer 2011), so claiming that it can be referential is quite controversial. Then, why would I think that, indeed, I have discovered instances of compounds with a referential non-head? In this section I present arguments in favour of the referentiality of the non-head, in the next section I present arguments in favour of the compounding status.

Consider the following four arguments for the referentiality of the non-head. Firstly, the non-heads that occur in the referential compounds seem to belong to a specific group; they are highly reminiscent of the type of lexemes Longobardi (1994) identified as typically subject to N-to-D raising: proper names (Pieter ‘Pete’), kinship names (moeder ‘mother’, vader ‘vader’), names of days of the weeks (zondag ‘Sunday’) and holidays (Nieuwjaar ‘New Year’, verjaardag ‘birthday’), and unique entities (zon ‘sun’, Kreeft ‘Cancer (the constellation)’, maan ‘moon’). The first ingredient to become referential is thus in place: these lexemes are excellent candidates to raise to a D-layer syntactically where they can gain referential semantics.

Secondly, the referential compounding seems to imply universal uniqueness or at least uniqueness in the context. For example, Kreeftskerkring ‘Tropic of Cancer’ uniquely refers to the Cancer constellation. This contrasts with kreeftensoep ‘lobster soup’ which does not show the -s- and which does not imply unique reference to a lobster at all. In fact, it does not even imply the presence of lobster: it is pretty easy to find a recipe for kreeftensoep zonder kreeft ‘lobster soup without lobster’ on Google. Similarly,

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1 The official spelling would be zonnebank.

2 I also do not exclude the possibility that there are yet other types of compounding in Dutch which have not been discovered yet.
*manenstelsel* ‘moon system’ does not refer to the Earth’s unique moon, whereas *maansverduistering* ‘lunar eclipse’ does refer to the unique moon as we know it. For words such as *naam* ‘name’, *vader* ‘father’, *zondag* ‘Sunday’ and *verjaardag* ‘birthday’ the uniqueness is contextual rather than universal. This does not constitute a problem: it is known from research on definiteness that contextual uniqueness suffices for referentiality (Lyons 1999).

Thirdly, in the absence of uniqueness, the referential compound is excluded, as illustrated by the following minimal pair:

(14) zon-s-hoogte
sun-s-height
‘solar altitude’

(15) * ster-s-hoogte
star-s-height

Fourthly, not only the uniqueness, but the referentiality itself is implied. Compare the following contrast. The following fully acceptable dialogue illustrates the classical, familiar non-referentiality of the non-head of a modificational compound (*hondenmand* ‘dog bed’):

(16) A: We kopen een hondenmand.
    B: Oh, heb jij een hond?
    A: Nee, eigenlijk niet, we gaan de mand gebruiken voor onze kat.
    B: Ja, je hebt gelijk, dan ligt ze wat ruimer.

    ‘A: We are buying a dog bed.
    B: Oh, do you have a dog?
    A: No, actually not, we are going to use the bed for our cat.
    B: Yes, I see, it will be a bit more spacious for her then.’

For the referential compound *verjaardagsfeest*, below, however, a dialogue parallel to the one in (16) is excluded -or at least very odd- due to the fact that the existence of the birthday is actually implied:

(17) #A: We organiseren een verjaardagsfeest.
    B: Oh, is er een verjaardag?
    A: Nee, eigenlijk niet, we organiseren het feest voor een huwelijk.
    B: Ja, je hebt gelijk, dat is vast goedkoper.

    ‘A: We are organising a birthday party.
    B: Oh, is there a birthday?
    A: No, actually not, we are organising the party for a wedding.
    B: Yes, I see, it’s probably cheaper.’

I conclude that the non-heads of these compounds have unique reference. The consequence is that the long-held believe that the non-head of a compound is by definition non-referential may be falsified.
4. Referential compounds versus the -s- possessive construction

The present section argues that the referential compound has true compounding status (and, as such, word-hood status) by comparing it to a phrase with similar properties: the Dutch -s possessive construction (see also De Belder 2009).3

The Dutch -s possessive resembles the English saxon genitive, but it is more restricted. In Dutch, the -s possessive construction is restricted to kinship nouns and proper names. Hence, the examples in (18) are excluded, whereas the ones in (19) are fine.

(18) a. * gisteren-s arrangementen b. * vrouw-s theorie
    yesterday-s arrangements          woman-s theory
    c. * een vrouw-s theorie d. * de vrouw-s theorie
       a woman-s theory                the woman-s theory

(19) a. Borer-s theorie over taalvariatie b. papa-s auto
    Borer-s theory on language variation   daddy-s car
    ‘Borer’s theory on language variation’ ‘daddy’s car’

When one studies the data in somewhat more detail, the generalisation is that the Dutch -s possessive construction is restricted to those nouns which can undergo N-to-D raising in argument position. Kinship nouns and proper names are of course roots that have the appropriate semantics to undergo N-to-D-raising, hence they can occur without an overt determiner in argument position, suggesting that the root itself has raised to D (Longobardi 1994):

(20) Ik ontmoette Hagit in Parijs. b. Ik zag papa.
    I met Hagit in Paris.          I saw daddy
    ‘I met Hagit in Paris.’        ‘I saw daddy’.

If the noun cannot undergo N-to-D-raising in argument position, the -s possessive construction is excluded. The contrast between the examples (21) and (22) shows that the noun (i.e. the root in the structurally nominal position) zon ‘sun’ requires an overt determiner in Dutch in argument position. Example (23) shows that the noun cannot occur as the possessor in the -s possessive construction. The proper names of rivers illustrate the same fact. They cannot occur without an overt determiner, and they do not occur as the possessor in the -s possessive either (see section 5 for an account):

(21) Ik zie de zon.
    I see the sun
    ‘I see the sun.’

(22) # Ik zie zon.
    I see sun

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3 I am using the term ‘construction’ in a descriptive, non-theoretical sense.
4 Also known as the Borer-Chomsky conjecture, a terrible name which has no place in a world that truly respects the scientific contributions of an extraordinary female linguist. I hereby politely ask our field to reconsider it and to call it Borer’s theory on language variation from now on.
5 A mass reading is possible, as in ‘I see some sunlight.’
The -s possessive construction and the referential compound show resemblances. Their non-heads are referential and they are both marked by an -s. Yet, they also show significant empirical differences, showing that we are dealing with two distinct structures.

Consider the following four criteria that distinguish between the two structures. Firstly, recall the restriction that only non-heads that can undergo N-to-D movement when occurring in argument position can occur as the possessor in -s possessive constructions. A parallel restriction does not hold for referential compounds. The referential compound allows all roots as a non-head that have a unique -universal or contextual- reference. The illicit -s possessive construction in (26) thus contrasts with the licit referential compound in (27):

(27)  zon-s-verduistering
       sun-s-eclipse
       ‘solar eclipse’

I postpone an account for this contrast till section 5. For now it is important that the contrast exists as a criterion to distinguish between the two structures.

Secondly, the compounds qualify for word-hood in the sense that they can be lexicalised: they are stored in the native’s speaker memory and in Dutch dictionaries. In that sense, a native speaker can distinguish between stored compounds, perhaps even with an idiomatic meaning, and newly formed compounds, i.e. neologisms, which are to be interpreted literally:

(28)  Ze  is een  zondag-s-kind.
       she  is a  Sunday-s-child
       ‘She is born on a Sunday and thus for good luck.’

(29)# Ze  is een  maandagskind.
       she  is a  Monday-s-child
       (The speaker expresses that there is a salient connection in the discourse between the child and Mondays.)

(30)  Ze  is een  zondag-s-oma.
       she  is a  Sunday-s-grandmother
(The speaker expresses that there is a salient connection in the discourse between the grandmother and Sundays, for example, because this grandmother only visits the family on Sundays.)

I do not fully exclude a creative, humorous use of the neologism in (29), analogue to the idiomatic reading in (28) (i.e. a child that systematically fails to grasp good luck). However, the mere fact that it would be considered humorous illustrates the point that it is not lexicalised. The -s possessive construction does not qualify for word-hood in that sense: it is simply a freely generated syntactic constituent. Syntactic constituents are never experienced as 'neologisms':

(31) moeders auto/fiets/jurk/laptop/…
mother's car/bicycle/dress/laptop/…

Thirdly, the compounds qualify for word-hood phonologically: they receive compound stress, i.e. main stress falls on the non-head. The -s possessive construction, in contrast, receives the stress of a syntactic constituent:

(32) a. 'moeder-s-kind
   mother-s-child
   ‘child too dependent on the mother’
   b. 'Kreeft-s-keerkring
   Cancer-s-tropic
   ‘Cancer Tropic’

(33) a. moeder-s ‘auto
    mother-s car
    ‘mother's car’
   b. Hagit-s ‘Festschrift
    Hagit-s Festschrift
    ‘Hagit’s Festschrift’

Fourthly, the compound qualifies for word-hood in the sense that it cannot be interrupted by other words: an intervening adjective is excluded. The -s possessive construction, in contrast, allows for intervening adjectives:

(34) moeders mooie autootje
    mother's pretty car
    ‘mother's pretty little car’

(35) Ze was mijn grootmoeder van vader-s-zijde.
    she was my grandmother of father-s-side
    ‘She was the grandmother of my father’s side of the family.’

(36) * Ze was mijn grootmoeder van vader-s arme zijde.
    she was my grandmother of father-s poor side

I conclude that the referential compound differs from the -s possessive constructon. The referential compound qualifies for word-hood and is thus truly a compound. Syntactically, this implies that it is derived through head incorporation, which counts as the syntactic movement that defines word-hood for compounds (Mithun 1984, Harley 2009). I propose that the non-head incorporates into a functional head called little d°, which is characterised by nominality and uniqueness: [n, unique]. It surfaces as -s-. The non-head plus -s- subsequently incorporates into the head of the compound. The -s possessive construction, in contrast would not undergo head incorporation. The non-head rather moves to Spec,DP and the -s occupies the D° position from its base position in what could either be analysed as Spec,nP or

(37) a. moeder-s-kind  
mother-s-child  
‘child too dependent on the mother’  

b. moeder-s auto  
mother-s car  
‘mother’s car’

In De Belder (2009) I argued that Dutch title expressions (as in count Dracula, professor Borer, queen Elizabeth, bookcase Billy,...) are referential construct states and I analysed them on a par with Ritter’s (1991) analysis for the Hebrew construct state. For reasons of space, I omit a discussion of such structures and I limit myself to pointing out that the referential compound in Dutch does seem to have a referential construct state counterpart as well.

5. When is N-to-D movement licit?

In section 4 I noticed a contrast between the referential compound and the -s possessive. It involved the issue that some roots which qualify for unique reference do not undergo N-to-D raising when in argument position. This goes hand in hand with the fact that they cannot occur as the non-head of the s-possessive either:

(38) # Ik zie zon.  
I see sun

(39) * zons zachte warmte  
sun’s gentlewarmth

Yet, they can be the non-head of the referential compound:
Why are some roots unable to undergo N-to-D raising and what causes the opposition between the referential compound and the -s possessive? In Borer (2005:84-85) the issue is discussed that certain proper names, such as the Bronx or the Pacific Ocean cannot occur without an article. After some discussion, Borer concludes that ‘for reasons we can only speculate on’ certain roots are banned from being proper names. She assumes that the reason is to be situated outside of syntax proper.

The present data indeed point in this direction. First, let us assume that for some roots the combination of the definite article plus the root is actually stored at Encyclopedia as the proper way to refer to the entity. For example, de zon is the conventional, lexicalised Dutch way to refer to the sun, whereas Zon is not. If zon ‘sun’ then would move to D, Encyclopedia would not be able to assign a reference to the construction. More generally, it follows that there is a rather superficial, extra-syntactic ban on the N-to-D movement. Syntax itself does not prohibit the movement. Interestingly, this makes the empirical predictions that if one can alleviate the extra-syntactic limitation, the N-to-D movement should be licit again.

Now consider the syntax of title expressions. They do not undergo N-to-D raising in argument position:

(41) * Ik feliciteer professor.
     I congratulate professor

(42) Ik feliciteer de professor.
     I congratulate the professor
     'I congratulate the professor.'

The ban on the N-to-D movement for such roots is rather clear: they lack the typical unique reference which Encyclopedia requires to interpret the structure and there is no idiom stored to interpret the structure either. Note also the default encyclopedic interpretation for N-to-D movement would fail as well: professor should not be interpreted as a proper name, the sentence is not about a person whose proper name is Professor. In sum, the structure is uninterpretable.

However, in De Belder (2009) I argued that in title expressions the title itself is subject to N-to-D movement, allowing the entire title expression to pattern with proper names both syntactically and semantically (see De Belder 2009 for a careful discussion):

(43) Ik feliciteer Hagit met haar verjaardag.
     I congratulate Hagit with her birthday
     'I congratulate Hagit on the occasion of her birthday.'

(44) Ik feliciteer professor Borer met haar verjaardag.
     I congratulate professor Borer with her birthday
     'I congratulate professor Borer on the occasion of her birthday.'

Crucially, when combined with a proper name, there is no ban on moving to D for a title. After all, why should there be such a ban? Professor Borer is fully interpretable: it has unique reference. These

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*6 Unless of course, the person is indeed called Professor, as in Money heist.
observations illustrate that syntax has no general ban for certain roots to move to D, the ban is interpretational.

Consider further the fact that many of the referential compounds under discussion are stored, lexicalised words. In other words, encyclopedia has an interpretation stored that matches their structure:

\[(45)\] zonsverduistering ↔ "SOLAR ECLIPSE"

The fact that the root zon ‘sun’ would require the determiner in argument position to refer to the star so familiar to us is simply irrelevant for the interpretation of the compound at Encyclopedia. Note that even if the compound had not been stored, the reasoning still holds. The non-head of a compound is a quite unique syntactic position which is arguably subject to its own interpretational rule at Encyclopedia.

More generally, it had been noted before that there is no ban on incorporating ‘proper names that require an article’ as in (46) (example taken from Borer 2005a:84, who cites Peter Ackema for suggesting it):

\[(46)\] Bronx-lover

I conclude that it follows that the set of roots that can occur in r-compounds is a superset of the set that can occur in the -s-possessive: roots with unique reference that would otherwise require a definite article in argument position may occur in the compounds, but not in the -s possessive. More generally, the idea that the ban on N-to-D movement for roots such as sun and Bronx is extra-syntactic seems to be on the right track.

6. Conclusion

In this short contribution I argued that Dutch has referential compounds: compounds with a referential non-head, even though that claim seems to be a *contradictio in terminis*. They resemble the Dutch s-possessive in that their non-heads involve movement to a referential layer. However, unlike the possessive structures, the compounding structure contains head incorporation which results in word-hood. The referential compound is therefore an instance of the fourth logical possibility according to the two parameters defined by Borer (2011) for N-N combinations: compounding versus constructs and modificational structures versus referential ones. Together with the syntactic structure of titles plus proper names, the referential compound further contributes evidence to the idea that a ban on N-to-D movement for certain uniquely referring roots, such as sun and Bronx is extra-syntactic. I believe we now have everything in place for professor Borers verjaardagscadeau ‘professor Borer’s birthday gift’, which is given on the next page.

References

Gelukkige verjaardag, Hopit!
De_van_Marij