Null arguments in Old Norwegian: Interaction between pronouns and functional domains[*]

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ABSTRACT In this paper I propose a new analysis of null arguments in Old Norwegian. I argue that the option of null realization in Old Norwegian correlates with a distinction between ɸP and DP pronouns in the sense of Déchaine & Wiltschko (2002), and that this distribution can be captured by a version of pronoun deletion in the sense of Roberts (2010b). On a more general level I argue that both the structure of pronouns and that of the functional domains C, T and v influence the null argument properties of a language. Thus, null arguments, but also *blocking* of null arguments in languages like Modern Norwegian and English, may be derived in different ways.

1 INTRODUCTION

Null arguments in early Germanic have received an increasing amount of attention in recent years (cf. e.g. Sigurðsson 1993 on Old Icelandic, Faarlund 2013 on Old Norse, Håkansson 2008, 2013 on Old Swedish, Axel 2007 on Old High German, van Gelderen 2000, 2013, Rusten 2010, 2013 and Walkden 2013 on Old English, as well as the comparative studies of Rosenkvist 2009 and Walkden 2014b). In this paper I propose a new analysis of null arguments in Old Norwegian, an understudied variety whose null argument properties are not immediately captured by previous accounts.

The paper focuses on definite null arguments; generic null subjects will not be discussed.[1] I will argue that the distribution of Old Norwegian null arguments correlates with a distinction between ɸP and DP pronouns in the sense of Déchaine & Wiltschko (2002), and that this fact can be accounted for by a slightly revised version of pronoun deletion in the sense of Roberts (2010b). Looking beyond Old Norwegian, my study lends support to the view that the *combination* of the structure of pronouns and the structure of the functional domains C, T and v is crucial in determining the null argument properties of a language (cf. e.g. Biberauer

[1] Cf. e.g. Sigurðsson & Egerland (2009) and Holmberg (2010) for treatments of generic null subjects.

2008: 50).[2] This means that null arguments can be derived in different ways (see e.g. Holmberg 2005, 2010, Roberts & Holmberg 2010, Neeleman & Szendrői 2007, Walkden 2014b and many others). I will draw attention to the further implication that *blocking* of null arguments in non-null-argument languages (non-NALs) may also arise in different ways, even in related languages like Modern Norwegian and English.

The paper is organized as follows: In Section 2 I define the term Old Norwegian and present my sources of Old Norwegian data. In Section 3 I present some facts about Old Norwegian null arguments. In Section 4 I present my syntactic analysis. In Section 5.2 I compare Old Norwegian to the non-NALs Modern Norwegian and English. Section 6 concludes the paper.

2 Old Norwegian — definition and data

By Old Norwegian I mean the language used in Norway from *c.* 750 until *c.* 1370 (Faarlund 2004, Mørck 2011). Old Norwegian is not to be confused with Old Norse. The term Old Norse normally encompasses two varieties, Old Norwegian and Old Icelandic; I have only investigated Old Norwegian, and it should not be taken for granted that my findings extend to Old Icelandic.

My data are drawn from the Menotec corpus. I have manually excerpted null arguments from a subset of the data available in Menotec: all of *The Legendary Saga of St. Óláfr* (ÓSHL), as well as a sample of 8 homilies from *The Old Norwegian Homily Book* (HOM). The subcorpus from which I have excerpted null arguments amounts to 51,000 tokens (words). When investigating syntactic properties apart from null arguments, I have queried the whole Menotec corpus, which additionaly includes the prose stories of *Strengleikar* and a law (*The Law Code of Magnús Lagabøti*).

3 Null arguments in Old Norwegian – basic facts

3.1 Positional distribution

Referential, definite arguments in Old Norwegian are mostly overt, but may also be null. Null arguments are often subjects; some examples are given in (1).

(1) a. *hafðe **pro** mikit har oc fagrt sem **pro** silki være.*
        had [he] much hair and beautiful as [it] silk were
        'He had much hair, and it was as beautiful as were it made of silk.'
        (ÓSHL, 7017)

     b. *margygr var **pro** kallat*
        sea-ogress was [she] called
        'She was called a sea-ogress.'   (ÓSHL, 6793)

     c. *Sægir hann þat at æigi man **pro** satt vera.*
        says he   that that not can [it] true be

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[2] Another line of research explores the extent to which null arguments can be analyzed in a unified way; cf. e.g. Sigurðsson (2011), Barbosa (2013), Duguine (2013) and Walkden (2014a).

'He says that it cannot be true.'　　　　　　　　　　(ÓSHL, 8090)

d. *þat er fornt skip nokcot | se hvesso gratt **pro** er oc*
   that is old ship some | see:IMP how grey [it] is and
   skamt.
   short

   'That is an old ship. See how grey and short it is.'　(ÓSHL, 8455)

e. *hvat monu smyrslen þa nema renna ór sareno*
   what could ointment:the then but run out.of wound:the
   *á brout með ulicans bloðe ok vage. | ok **pro** grœr*
   on road with different blood and pus | and [it] heals
   ecci.
   not

   'What could the ointment do then, except running from the wound
   with blood and pus? And the wound does not heal.'　(HOM, 1654)

f. *Oc þui næst com **pro** firir brœðr hænnar.*
   and that next came [it] before brothers her

   'And then her brothers became aware of it.'　　　　(ÓSHL, 9626)

Objects may also be null. This applies to objects of verbs as well as prepositions;
some examples are given in (2):

(2)　a. *hon sægir at þat sværð bar haralldr faðer hans. ...*
        she says that that sword carried Haraldr father his ...
        *hann kuaz nu mindu træystazt at bera **pro**. Oc*
        he says:REFL now intend dare:REFL to carry [it] and
        *giængr i braut með **pro**.*
        goes in road with [it]
        'She says that his father, Haraldr, carried that sword. ... He says that
        he intends to carry it right away and walks away with it.'(ÓSHL, 6575)

    b. *En þat er ret at kenni menn gefa gaum at guðs*
        and that is right that priests give attention on God's
        *boðorðe. ok giata **pro** væl með rettre trv. ...*
        commandment and take.care.of [it] well with right belief
        'And the priests shall pay heed to God's commandments and watch
        them well by having the right belief.'　　　　　(HOM 894)

Evidently, null arguments in Old Norwegian occur in both main and subordinate
clauses (compare e.g. the two null subjects in (1a)). When found in main clauses,
they are not restricted to the clause-initial position, as can be seen in e.g. (1b,
e). This means that Old Norwegian null arguments cannot be reduced to topic
drop/discourse ellipsis of the type found in modern Germanic languages.[3] Neither

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3　For discussions of topic drop/discourse ellipsis, cf. e.g. Stjernholm (2008) and Nygård (2013) on Nor-
   wegian, Platzack (1998: 104–105) and Mörnsjö (2002) on Swedish, Thráinsson & Hjartardóttir (1986),

can they be reduced to any special type of conjunction reduction; this would leave null arguments in subordinate clauses, as well as in non-cooordinate main clauses like (1a–b), unaccounted for.[4] I therefore treat Old Norwegian null arguments as null pronouns, i.e. *pro*.

3.2 Person features

Old Norwegian null arguments are practically always 3rd person. This has been noted both by Nygaard (1893, 1906: 10–11) and, more recently, by Faarlund (2013). Nygaard's and Faarlund's observations are supported by quantitative data from the Menotec corpus; cf. Tables 1 and 2.[5]

Person	Overt subject pronoun	Null subject	Total
1st	320 (99,1%)	3 (0,9%)	323 (100%)
2nd	182 (99,5%)	1 (0,5%)	183 (100%)
3rd	1561 (78,4%)	429 (21,6%)	1990 (100%)
Total	2063 (82,7%)	433 (17,3%)	2496 (100%)

Table 1 Referential, pronominal subjects in non-imperative clauses in *The Legendary Saga of St. Óláfr*, by person

Person	Overt subject pronoun	Null subject	Total
1st	117 (99,2%)	1 (0,8%)	118 (100%)
2nd	26 (100%)	0 (0%)	26 (100%)
3rd	192 (88,5%)	25 (11,5%)	217 (100%)
Total	335 (92,8%)	26 (7,2%)	361 (100%)

Table 2 Referential, pronominal subjects in non-imperative clauses in *The Old Norwegian Homily Book*, by person

As table 1 shows, 21,6% of the 3rd person subjects in *The Legendary Saga of St. Óláfr* are null; this is true of only 0,9 percent of the 1st person subjects and 0,5

Sigurðsson (1993) and Thráinsson (2007: 277) on Icelandic, Haegeman (1990, 2000) as well as Weir (2012) on English, de Korte (2008) on Dutch, and Trutkowski (2011) on German.

[4] Faarlund (1990: 103–105) proposes a conjunction reduction analysis of null arguments in Old Norwegian/Old Icelandic, but my data refute this, at least for the Old Norwegian variety.

[5] Only subjects are included in the tables, as it can be hard to determine whether verbs and prepositions actually require a complement. Transitive verbs may be used intransitively (cf. e.g. Åfarli & Creider 1987: 342), it is sometimes difficult to draw the line between verb particles and regular prepositions.

percent of the 2nd person subjects. In *The Old Norwegian Homily Book* 11,5 percent of the 3rd person subjects are null. 1st person subjects are null in 0,8 percent of the cases, whereas 2nd person null subjects are not attested. In terms of absolute numbers, the instances of 1st and 2nd person null subjects in my data set amount to 5. Facsimiles of the manuscript containing *The Legendary Saga of St. Óláfr* and *The Old Norwegian Homily Book* (DelaG 8 II) (Seip 1952, 1956) reveal that in 2 of these 5 instances, there is a line break in the position where we would expect an overt subject to occur. Line breaks are a paleographic factor that may promote unintended omissions. I take the strikingly low frequencies, in combination with the paleographic evidence, to indicate that there is a grammatical restriction on 1st and 2nd person null arguments in Old Norwegian; 1st and 2nd person null arguments seem to be a marginal phenomenon, at most.

3.3 Information structure

Recent works on null arguments across languages have highlighted the role played by information structure, in particular the importance of topicality (cf. e.g. Frascarelli 2007, van Gelderen 2013 and Walkden 2013, 2014b). A common assumption, shared by all of the authors mentioned above, is that null arguments must be aboutness topics in the sense of Frascarelli & Hinterhölzl (2007). Frascarelli & Hinterhölzl's definition of aboutness topics is based on work by Reinhart (1981) and Lambrecht (1994); some important characteristics of aboutness topics are the following: An aboutness topic is the constituent about which the sentence is meant to expand our knowledge. Moreover, there can only be one aboutness topic per clause (Frascarelli & Hinterhölzl 2007: 114).

Interestingly, though Old Norwegian null arguments are often aboutness topics, clear counterexamples can be found. First, Old Norwegian allows *two* null arguments within the same clause, both of which cannot be aboutness topics. Some examples of clauses with two null arguments are given in (3).

(3)   a. *Ser* pro *þo*   *at* *ækci* *fær* **pro** *at*   **pro**
              sees [he] nevertheless that nothing gets [he] against [it]
              gort.
              done

              'But he saw that there was nothing he could do about it' (ÓSHL, 8298)

    b. *Siðan*   *drogo* *þæir* *ut* *tunguna*   *um*
              after.that pulled they out tongue:the through
              kværkena. | *Skaro* **pro**   **pro** *þar* *af*
              angle.below.the.chin:the | cut   [they] [it] there off

              'After that they pulled his tongue out through his throat. There they cut it off.'   (ÓSHL, 9823)

In the subordinate clause in example (3a) a null subject co-occurs with a null complement of the preposition *at*. In the second main clause in (3b), a null subject co-occurs with a null complement of the verb *Skaro* 'cut'.

Another environment where null arguments can hardly be aboutness topics is found in certain relative clauses. In a relative clause, the relativized element is always the aboutness topic (Lambrecht 1994: 130). Old Norwegian, however, exhibits relative clauses in which a non-subject is relativized, but the subject is still null. This is illustrated in example (4).

(4) a. *Oc þotte farunautum Olafs harallz sonar æigi auðvællt*
        and seemed companions Óláfr's Haraldr's son   not easy
        *undan at styra **þaðan**   sem **pro** komner varo.*
        away to steer from.there COMP [they] come were
        'To the companions of Óláfr, son of Haraldr, it did not seem easy to steer clear [of the enemy] from the position they were in.'

        (ÓSHL, 6831)

     b. *ok gera **almosu slica** hver sem coste   á   **pro** til*
        and make alms   such each COMP condition owns [he] to
        …

        'And everyone should give alms as generous as they are capable of.'

        (HOM, 2002)

In (4a) the adverbial *þaðan* 'from there' is relativized, while the subject is null. In (4b) the object *almosu slica* 'such alms' is relativized; again, the subject is null, though not being an aboutness topic.

Summing up this section, we have seen that Old Norwegian null arguments are found in both main and subordinate clauses, and that they are not restricted to the contexts in which we find topic drop/discourse ellipsis at the Modern Norwegian stage. We have also seen that null arguments are restricted to the 3rd person, and that they are not necessarily aboutness topics.
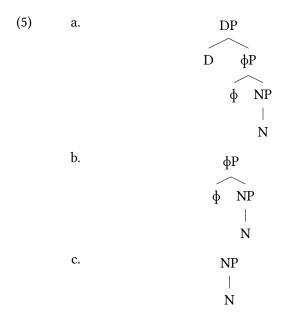
4 A syntactic analysis: Only ϕPs can be deleted

Descriptively, the restricted null argument property of Old Norwegian makes it a partial NAL in the sense of e.g. Roberts & Holmberg (2010), Holmberg (2010) and Walkden (2014b).[6] I will, however, propose a syntactic analysis that differs from those previously given of this type of NAL. The core of my analysis is the following: Pronouns differ in terms of internal structure, and in Old Norwegian, only the smallest pronoun category, ϕPs, can be null.[7]

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[6] Roberts & Holmberg (2010) and Holmberg (2010) use the term partial *partial null subject language* (NSL), but the term partial NAL seems more appropriate, as the ability to license other null arguments than subjects are a characteristic property of these languages (Walkden 2014b: 213).

[7] I will not discuss previous analyses of early Germanic or other partial NALs in detail here; suffice it to mention that the account that I will present has two advantages: First, as opposed to the accounts of Walkden (2014b) and van Gelderen (2013), it does not rest on the assumption that null arguments are necessarily aboutness topics. Second, it straight-forwardly predicts the asymmetry between the 1st and 2nd persons on the one hand vs. the 3rd person on the other. This does not directly follow

4.1 The framework of Déchaine & Wiltschko (2002)

It has become increasingly clear that pronouns, both within and across languages, may exhibit different syntactic properties (see e.g. Cardinaletti & Starke 1996, 1999, Déchaine & Wiltschko 2002 and Höhn 2015). I will adopt the framework of Déchaine & Wiltschko (2002), who distinguish between three types of pronouns: DPs, ɸPs and NP, as illustrated in (5).

(5)   a.

```
              DP
             /  \
            D    ɸP
                /  \
               ɸ    NP
                    |
                    N
```

       b.

```
            ɸP
           /  \
          ɸ    NP
               |
               N
```

       c.

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          NP
          |
          N
```

As is evident from the syntactic trees in (5), the pronoun types differ in terms of syntactic category and internal structure. In our context, the crucial distinction is that between DPs and ɸPs, which I will discuss in the following.

DPs are the biggest pronoun category. The presence of the D-layer, which is not found in ɸPs, has two important consequences: Semantically, it entails that DPs have a "demonstrably definite" meaning (Déchaine & Wiltschko 2002: 410). Syntactically, it enables DPs to function as determiners; in other words, they can take lexical nouns as (a part of) their complement (Déchaine & Wiltschko 2002: 421). ɸPs, on the other hand "lack inherent semantics" and "simply spell out ɸ-features" (Déchaine & Wiltschko 2002: 410–411). Relatedly, they cannot function as determiners; the NP in the complement position of ɸ seems to resemble what Barbosa (2013) refers to a as a "default, nearly semantically empty nominal [$_{NP}$ e]" and cannot be replaced by a lexical noun.[8]

In English, according to Déchaine & Wiltschko (2002), 1st and 2nd person pronouns are DPs, while 3rd person pronouns are ɸPs. That accounts for the data shown in (6).

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from Walkden's (2014b) analysis; neither does it follow from Håkansson's (2008, 2013) analysis of Old Swedish null subjects or from Holmberg (2010). Cf. Kinn (forthcoming) for discussion.

[8] Déchaine & Wiltschko (2002) discuss other properties of pronouns as well, but most of them are hard to test in a dead language. I will therefore limit my attention to the question of whether or not a pronoun can function as a determiner.

	1st			2nd		
	sing.	dual	pl.	sing.	dual	pl.
N	ek	vit	vér	þú	þit	þér
A	mik	okkr	oss	þik	ykkr	yðr
D	mér	okkr	oss	þér	ykkr	yðr
G	mín	okkar	vár	þín	ykkar	yðar

Table 3   Old Norwegian first and second person pronouns

(6)   a. *we* linguists – *us* linguists

  b. *you* linguists – *you* linguists

  c. **they* linguists – **them* linguists

(adapted from Déchaine & Wiltschko 2002: 421)

We and *you* in (6a,b) are DPs and can function as determiners, whereas *they* in (6c) is only a ɸP and thus cannot do this.

Having introduced the framework of Déchaine & Wiltschko (2002), I now turn to the pronoun system of Old Norwegian.

4.2 Pronouns in Old Norwegian

In this section I will discuss the pronoun system of Old Norwegian in terms of the DP vs. ɸP distinction. 1st and 2nd person pronouns are treated in Section 4.2.1; 3rd person pronouns in Section 4.2.2. I will argue that the Old Norwegian pronoun system is similar to that of English in that 1st and 2nd person pronouns are DPs, whereas 3rd person ones are ɸPs.

4.2.1 1st and 2nd person pronouns are DPs

An overview of 1st and 2nd person pronoun forms in Old Norwegian is given in Table 3. In the Menotec corpus, most of the 1st and 2nd person pronouns are attested co-occurring with nouns in contexts that are equivalent to the *we linguists*-examples of Déchaine & Wiltschko (2002). This is illustrated in (7).

(7)   a. *Hann   hævir   þat   spurt.   At   **ver   dœlir**   æigum   oss*
            he   has   that heard   that we   dalesmen   get   ourselves
        ny   guð.
        new god

    'He has heard that we dalesmen have a new god.'   (ÓSHL,7266)

115

	sing.			pl.		
	masc.	fem.	neut.	masc.	fem.	neut.
N	hann	hon	*þat*	*þeir*	*þær*	*þau*
A	hann	hana	*þat*	*þá*	*þær*	*þau*
D	honum	henni	*því*	*þeim*	*þeim*	*þeim*
G	hans	hennar	*þess*	*þeira*	*þeira*	*þeira*

Table 4 Old Norwegian third person personal pronouns (forms that are also used as demonstratives in *italics*)

b. *En   ef hann þui suarar   at   þerssor iorð var*
and   if he   that answers that this   land was
logboðen   yðr frendom ...
lawfully.offered you kinsmen ...

'And if he answers that this land was lawfully offered to you kinsmen ...'   (The Law Code of Magnús Lagabøti, 11177)

c. *En   nu   með þui at   þit   felagar kalleð guð ykcan*
and now   with that COMP you.two fellows call   god your
sva margar iartæignir gera þa   late   hann vera solskin
so many   wonders   do   then let:SBJV he   be   sunshine
i   morgon
in morning

'And now, since you fellows say that your god can do so many wonders, he should let there be sunshine tomorrow.'   (ÓSHL, 7377)

d. ***Þu   maðr   kvað hon ...***
you human said she
'You, she said.' (Strengleikar, 4936)

I draw the conclusion that 1st and 2nd person pronouns in Old Norwegian are DPs.[9]

4.2.2 3rd person pronouns are ϕPs

An overview of Old Norwegian 3rd person pronouns is given in Table 4. I will start by discussing the sg. m. and f. forms *hann* 'he' and *hon* 'she'.

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[9] Déchaine & Wiltschko (2015) suggest that English has homophonous ϕP versions of the 1st and 2nd person pronouns; the ϕP versions may function as bound variables, as opposed to the DP versions. I am not aware of any evidence of this in Old Norwegian.

If *hann* and *hon* are ɸPs, we would not expect them to be able to take noun complements. Now, contrary to what we might expect, the Menotec corpus does exhibit some examples where *hann* co-occurs with a noun, as illustrated in (8).

(8)   a. *Uin   kvað **hann riddarinn**. Giarna vil   ec fylgia þer*
        friend said   he   knight:the   gladly will I   follow you
        'Friend, said the knight, I will gladly follow you.'   (Strengleikar, 5127)

      b. *Sægi at   lannzhærrenn   man vera **hanum** otrur*
        say   that people.of.country:the may be   him   unfaithful
        konongenom
        king:the
        'They say that the people of the country may be unfaithful to him, the king.'   (ÓSHL, 8750)

The cases in which *hann* co-occurs with a noun are, however, systematically different from the examples with a 1st/2nd person pronouns and a noun shown in (7).[10] First, the nouns with which *hann* co-occurs are always definite; cf. the forms *riddarinn* 'the knight' and *konongenom* 'the king' in (8). Second, *hann* does not seem to add any demonstrative or definite meaning, contrary to the 1st and 2nd person pronouns in (7). Third, *hann* does not necessarily *directly* precede the noun, as can be seen in (8b). I have not found this type of word order in the context of 1st and 2nd person pronouns. Based on these observations I assume, with Faarlund (2004: 89–90), that the nouns in (8) are not complements of *hann*, but rather appositions. Provided that the apposition analysis is correct, there is no evidence that *hann/hon* can take noun complements, and I therefore conclude that they are ɸPs.

The case of 3rd sg. n. *þat* 'it' and 3rd pl. *þeir/þær/þau* 'they' is somewhat less straightforward than that of *hann/hon* '*he/she*'. The reason for this is that *þat* and *þeir*[11] are not unique pronoun forms; they are identical to the sg. n. and pl. forms of the demonstrative *sá* 'that'. When *þat* and *þeir* are used as demonstratives, they must have more structure than ɸPs; I will refer to them as DPs when they appear in such contexts.[12] Cf. example (9).

(9)   a. *... Oc sægir at   **þat barn** mindi værða   mikill*
        ... and says that that child might become great
        mærkismaðr.
        distinguished.person
        '... and says that that child might become a very distinguished person.'   (ÓSHL, 6474)

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[10] Presumably, *hon* 'she' may also occur in these contexts, though it is not attested in my corpus.

[11] Henceforth I will, for convenience, only refer to the m. form, as this form occurs most frequently in contexts relevant in the present context.

[12] They may possibly be even bigger; in the framework of Julien (2005), they would probably be DemPs.

b. *ok   fell   þar   þa   fyrir   þæim   fa   liðum*
and fell there then for   them   with.few.followers
*flester   aller   **þæir hæiðnu menn.***
most   all   those heathen people
'There, at that time, most of those heathens were killed by them,
though they were few.'   (HOM, 2563)

The lexicon may, however, contain homophonous, but distinct versions of *þat* and
þeir that are ϕPs and not DPs. Postulating homophonous ϕP versions can be justified if it can be shown that *þat* and *þeir* occur in contexts where we find the ϕP
pronouns *hann/hon* 'he/she', but *not* the 1st and 2nd person pronouns, which are
DPs, or other, unambiguous determiners, e.g. the proximal demonstrative *sjá*. Evidence that *þat/þeir* can be used in such contexts is found — cf. the examples in
(10):

(10)   a. *þat   blotaðu   **þæir lanzmennener***
that worshiped they   people.of.the.land:the
'The people of the land worshiped it (= a pig).'   (ÓSHL, 6797)

b. *En **þat** er ret **at** **kenni menn gefa gaum**   **at***
and that is right that priests   give attention to
guðs   boðorðe.
God's commandment
'And it is right that priests pay heed to God's commandments.' (HOM,
894)

c. *oc   hittazc   **þæir** nu   **namn-arner***
and meet:REFL they   now namesakes:the
'And now they met, the namesakes.'   (ÓSHL, 7609)

d. *Nu   rœdazk   **þæir** við   **brœðrner**   i   **valenom***
now speak:REFL they   against brothers:the   in battlefield:the
'Now the brothers spoke in the battlefield.' (ÓSHL, 9416)

In (10a, c,d), *þeir* co-occurs with definite nouns. This is a syntactic context in which
I have not found 1st or 2nd person pronouns; neither have I found the proximal
demonstrative *sjá*. In (10b,d) there is discontinuity between *þat*/*þeir* and a presumably appositional noun (or, in the case of (10b), an appositional subordinate
clause). Again, this is a syntactic pattern that I have not found with 1st and 2nd
person pronouns or the proximal demonstrative *sjá*.

I conclude that *þat* and *þeir* exhibit a dual pattern: they can behave both like ϕPs
and DPs. I assume that there are ϕP versions of *þat* and *þeir* that are used when
þat/þeir do not function as determiners.

4.3 Derivation of null pronouns — the deletion analysis of Roberts (2010b)

In Section 3.2, I established that Old Norwegian null arguments are restricted to the 3rd person. In the previous section I argued that 3rd person pronouns, and 3rd person pronouns only, are ϕPs. This implies that only ϕs can be null. In the following I will argue that the correlation between ϕP pronouns and the possibility of null realization can be accounted for by (a slightly revised version of) pronoun deletion in the sense of Roberts (2010b).

On the analysis of Roberts (2010b), deleted pronouns are defective Goals in relation to a Probe. The notion of defectiveness implies that the features of the Goal are a proper subset of (i.e. are properly included in) the features of the Probe; in other words, the Probe must have all the features that are found on the Goal, in addition to one or more features that the Goal does *not* have. Deletion of defective Goals takes place when the Probe and the Goal Agree, and follows from the generalization stated in (11), adapted from Roberts (2010b: 76); cf. also Roberts (2010a).[13]

(11)   Defective goals delete/do not have a PF realisation independently of their probe.

Roberts (2010b) discusses pronoun deletion in the context of consistent null-subject languages (consistent NSLs), like e.g. Italian.[14] In consistent NSLs, deletion takes place when subject pronouns Agree with T; the proper subset-superset relation is facilitated by a D(efiniteness)-feature on T, which, in combination with the T feature, makes the features of the T head properly include the features of a subject pronoun (Roberts 2010b: 76). The D-feature on T is connected to morphological subject-verb agreement. Roberts' (2010b) analysis is thus consistent with the traditional view that null subjects are conditioned by agreement morphology on verbs (cf. e.g. Falk & Torp 1900, Taraldsen 1980, Borer 1986 Barbosa 1995, 2009 and Alexiadou & Anagnostopoulou 1998), at least in consistent NSLs.

4.4 Deletion in Old Norwegian

In Old Norwegian, as well as its contemporary Scandianvian sister languages, it is problematic to analyze null arguments as being deleted in Agreement with T, as in consistent NSLs. For one thing, not only subjects, but also objects can be null, and objects do not Agree with T. Moreover, even in the case of subjects, the role of T does not seem to have been crucial, as null subjects in Scandinavian were lost more or less independently of changes in the subject-verb agreement morphology (Sigurðsson 1993, Kinn 2011, Håkansson 2008, 2013). To account for the Norwegian data I propose that null arguments are not deleted in Agreement with T, but with C

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[13] In Old Norwegian, only 3rd person pronouns may undergo deletion, but they do not obligatorily do so. Cf. Kinn (forthcoming) for discussion of the more precise conditions under which deletion takes place.

[14] One of the characteristics of consistent NSLs is that null arguments apart from subjects are not allowed (Roberts & Holmberg 2010: 10). I therefore use the term NSL rather than NAL to refer to this type of language.

and other phase heads. In the following I will discuss the derviation of null subjects in detail; I return to null objects at the end of the section.

The proposal that null subjects are deleted in Agreement with C presupposes that the features of the subject are properly included in those of C. This leads to the question of which features are found in the C-domain. I assume, uncontroversially, that C has Force and Fin features. Following e.g. Chomsky (2004, 2007, 2008), Ouali (2008) and Miyagawa (2010) I also assume that C has φ-features. The φ-features are inherited/shared by T; I take it that C keeps a copy. Though the presence of a copy is not directly evidenced in Old Norwegian, German dialects with subject-complementizer agreement indicate that this possibility is not excluded in a Germanic context (Miyagawa 2010: 16, Weiß 2005).

Following Sigurðsson (2004, 2011, 2014) I assume that the C-domain also contains so-called linking features, i.e. the logophoric agent and patient features Λ_A and Λ_P, as well as various Topic features (A-Top, C-Top, Fam-Top, see Frascarelli & Hinterhölzl 2007). All subject pronouns, overt or null, must Agree with one or more of the linking features in C to be anchored in the discourse.

The idea of linking features is motivated in particular by so-called deictic switch phenomena (Sigurðsson 2011: 283, 2014: 77ff). Many languages, like Amharic and Navajo, regularly use 1st and 2nd person pronouns in contexts like (12), where they do not refer to the actual speaker and hearer of the utterance, but rather to the persons mentioned in the matrix clause:

(12)   /he Mary told that *I you* help will/

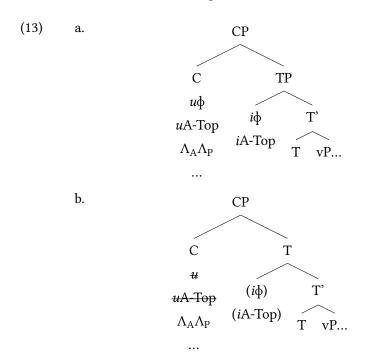   = 'He told Mary that he would help her' (Sigurðsson 2011: 283)

The deictic shift in (12) is, on Sigurðsson's account, facilitated by the logophoric agent and patient features Λ_A and Λ_P, which are capable of redefining the clause's conceived speaker and hearer (Sigurðsson 2011: 283). Though not being the general rule, deictic shifts are rather common in Old Norwegian and Old Icelandic (Iversen 1972: 156).[15] I take this to suggest that linking features are a relevant category in the analysis of Old Norwegian.

I follow Giorgi & Pianesi (1997) in assuming that the features of the C-domain do not necessarily head their own projections. Rather, features can either be *clustered* in one, syncretic head, or *scattered* on several heads, the choice between the two options being a point of variation between languages. Separate functional projections are only present to the extent that there is evidence for them in a given language, valid evidence being e.g. the availability of fronting operations (see Giorgi & Pianesi 1997: 16–17). In Old Norwegian, fronting of constituents to the C-domain is highly restricted; there is no clear evidence of separate, designated topic or focus projections, as opposed to what we find in e.g. Italian (e.g. Rizzi 1997, Frascarelli &

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[15] Iversen (1972) describes the deictic switches as anacolutha, but his interpretation of the data does not seem to have any other motivation than the fact that the construction type is more or less unacceptable in Modern Norwegian.

Hinterhölzl 2007).[16] I see no reason to deviate from the simplest possible analysis, on which all the features mentioned above are located in one individual head in Old Norwegian; for simplicity I use the cover term C for this head.

Given these theoretical assumptions, the features of a ɸP subject are a proper subset of C's features and can be deleted. The derivation of an Old Norwegian null subject is sketched in example (13). The tree in (13a) illustrates the relationship between C and the subject pronoun in Spec-TP prior to Agreement; the tree in (13b) shows the situation after Agreement has taken place. (~~Strike-through~~ marks features that have been valued, parentheses mark deletion.)

(13)   a.

```
                    CP
                  /    \
                C        TP
               uɸ      /    \
             uA-Top   iɸ      T'
             ΛₐΛₚ    iA-Top  /  \
              ...           T    vP...
```

    b.

```
                    CP
                  /    \
                C        T
               u̶      /    \
             u̶A̶-T̶o̶p̶  (iɸ)    T'
             ΛₐΛₚ   (iA-Top)  /  \
              ...            T    vP...
```

In (13) the subject pronoun has ɸ-features and an A-Top feature; these features are properly included in C's features. Note that there is no D-feature in C. Thus, the features of a DP pronoun will never be properly included, and deletion of DPs is not possible.

Old Norwegian null objects are, on my analysis, derived basically in the same way as null subjects. However, the Agreement relation that renders an object null is not a relation between the pronoun and C, but rather between the pronoun and other phase edges: Null objects of verbs are deleted in Agreement with v, while null objects of prepositions are deleted in Agreement with P. I assume with Sigurðsson (2014) that all phase edges have linking features, and, moreover, that the features of all phase edges in a language are organized in a parallel manner (cf. Poletto 2006).

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[16] Old Norwegian is a V2 language in the sense that the verb moves to C main clauses, and may be preceded by maximally one fronted constituent. The preverbal constituent may have various information-structural properties. In subordinate clauses, there is normally room for a maximum of one constituent between the complementizer and the finite verb, which is in most cases analyzed as sitting in T (Faarlund 2004: 191ff).

This means that the proper subset-superset relation between Probe and Goal holds for objects as well as subjects, and that object pronouns, just like subject pronouns, may be deleted, provided that they are ϕPs.

5 Some cross-linguistic perspectives

The syntactic analysis presented in the previous section exploits idea that the derivation of null arguments depends on interaction between pronouns and functional categories in the clausal spine, both of which represent points of syntactic variation (Biberauer 2008: 50). In this section I will discuss how the null argument properties (or lack thereof) in languages other than Old Norwegian can be analyzed along the same lines; more precisely, I will compare Old Norwegian to the non-null-argument languages Modern Norwegian and English. I will argue that although Modern Norwegian and English are similar in not allowing null arguments, the deciding factors underlying the non-NAL property are not the same.

5.1 Old Norwegian vs. Modern Norwegian

In Modern Norwegian, null arguments of the Old Norwegian type are no longer available. Interestingly, the (overt) pronoun system in Modern Norwegian is also different from the Old Norwegian one: All personal pronouns now seem to be DPs; in other words, the pronouns that were ϕPs in Old Norwegian have changed. Evidence of this is the fact that *han* 'he' and *hun/ho* 'she',[17] the cognates of *hann* and *hon*, are now able to function as determiners, as opposed to what was the case in Old Norwegian. *Han/hun/ho* exhibit determiner properties in two syntactic contexts in particular: As psychologically distal demonstratives, and as so-called preproprial articles.

Psychologically distal demonstratives (PDDs) are used to signal a particular type of deixis, namely psychological distance to persons. PDDs typically occur in contexts where either the speaker or the addressee does not know the person being referred to, or when the speaker wants to express a negative attitude to this person (Johannessen 2006, 2008a,b). Some examples are cited in (14) (from Johannessen 2008b: 164–166).

(14) a. *jeg og Magne vi sykla jo og **han Mikkel** da*
        I   and Magne we cycled yes and he   Mikkel then
        'Me and Magne and that guy Mikkel, we cycled.' (NoTa, M, 36)

     b. ***hun dama** blei jo helt nerd da*
        she woman:the became yes completely nerd then
        'That woman, she became a complete nerd, you know.' (NoTa, M, 18)

---

[17] *Hun* is the variant of the written standard Bokmål; in Nynorsk, the other written standard of Norwegian, the f. form is *ho*. In the spoken dialects, the pronouns take different shapes.

The PDDs in (14) signal that the speaker (or perhaps the addressee) does not know the persons under discussion.[18]

As Johannessen (2008b: 178) points out, the PDD is in complementary distribution with the definite determiner *den* 'that'. Cf. the following example from Johannessen:

(15)   a. Definite determiner

      *(den) tyske   ingenørtroppen
      the   German engineering-troop:the

    b. PDD

      hun gmale lærerinnen vår
      she old   teacher:the our

    c. PDD + definite determiner

      *han den lille   mannen
      he   the little man:the

The fact that the PDD cannot be combined with other determiners suggests that it heads a DP.

Preproprial articles exist in many Norwegian varieties (cf. e.g. Julien 2005, Dahl 2007, Johannessen 2008b, Håberg 2010). As opposed to PDDs, they do not express psychological distance; rather, they are, as a general rule, obligatory with person names and certain family relations.[19] Two examples are given in (16) (from Julien 2005: 176 and Håberg 2010: 5):

(16)   a. **Ho Siri** *e hær.*
      she Siri is here
      'Siri is here.'   (Northern Norwegian)

    b. **hann Marrtin Myr** *på Tårrpo*
      he   Martin Myr in Torpo
      'Martin Myr in Torpo.'   (Ål Norwegian)

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[18] It may be noted that the complements of *han* and *hun* are definite; in (14a) the complement is a proper name, in (14b) a common noun with a suffixed definite article. In Section 4.2.2 I took the definiteness of nouns co-occurring with *hann/hon* 'he/she' in Old Norwegian to indicate that those nouns were not complements, but appositions. The implications of definiteness are not the same in Modern Norwegian, however: As opposed to Old Norwegian, Modern Norwegian employs double definiteness, i.e. determiners with definite noun complements, as the unmarked, default strategy (Faarlund, Lie & Vannebo 1997: 296ff., Julien 2005: 26ff., Dyvik 1979). The fact that the nouns in (14) are "already" definite does therefore not challenge the analysis of *han* and *hun/ho* as a type of determiner with a noun complement.

[19] This is a slight simplification; in some varieties the article is not used in all contexts, cf. Johannessen (2006: 99) and Håberg (2010). I hypothesize that in these varieties, the presence or absence of the preproprial article is associated with some interpretive effect. Delsing (2003) suggests that many Swedish varieties only use the preproprial article when the person name refers to someone the speaker knows personally.

Preproprial articles are commonly analyzed as Ds (cf. e.g. Julien 2005: 175 and Longobardi 1994). A distributional argument in favor of this analysis is the fact that they occupy the same position relatively to adjectives as definite determiners do. This is illustrated in (17).[20]

(17) a. *Je såg itte **a** **vesle Lina***.
         I saw not she little Lina
         'I didn't see little Lina.'   (Solør Norwegian, from Julien 2005: 175)

      b. *Jeg så ikke **den vesle jenta***.
         I saw not the little girl
         'I didn't see the little girl.'

Neither PDDs nor preproprial articles are attested in Old Norwegian.[21] Dahl (2007: 92) has found some possible instances of preproprial articles dating from the beginning of the 15th century, but my impression is that they are rare at this stage. The PDD is probably even more recent. The earliest written examples noted by Johannessen (2008a) are from the beginning of the 20th century. Johannessen (2008a) has also compared two speech corpora, TAUS from 1970 and NoTa from 2005, and found, firstly, that the the use of PDDs has increased; secondly, that the PDD was predominantly used by young speakers in 1970. In combination, these facts may suggest that the PDD is not much older than its earliest attestations.

I take the rise of PDDs and preproprial articles to be symptomatic of a reanalysis of the Norwegian pronoun system which rendered all pronouns as DPs. This reanalysis entailed the loss of null arguments, as DPs do not fulfill the structural requirements for deletion, neither in Old nor in Modern Norwegian.

5.2 Old Norwegian vs. English

Like Modern Norwegian, English is a non-NAL. However, as briefly mentioned in Section 3, English has, according to Déchaine & Wiltschko (2002) 3rd person ɸP pronouns, which makes its pronoun system similar to that of Old Norwegian. This means that the difference between Old Norwegian and English cannot be accounted for in terms of the structure of pronouns. I propose that the non-NAL status of English can rather be derived from the organization of features in the English C-domain: In English the features of C are more scattered than in Old Norwegian.

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[20] The form of the preproprial article in (17a) is *a*; the same form is used for weak f. pronouns in the Solør dialect.

[21] In my Old Norwegian corpus *hann* does sometimes co-occur with a proper name. However, analyzing it as a preproprial article can hardly be justified. Preproprial articles in the modern sense are, as mentioned, obligatory in the varieties where they occur, whereas the Old Norwegian instances are only sporadic. It is, of course, possible to argue that the article was not yet obligatory at the Old Norwegian stage, but in that case we would expect it to have some semantic or pragmatic effect, or, alternatively to appear with certain types of names only, as in some Romance varieties (Longobardi 1994). I have not been able to spot any such patterns, and I therefore take the occurrences of *hann* + proper name in Old Norwegian to be appositions, equivalent to the examples cited in (8).

Evidence of scattering is provided by the option of fronting both topics and foci to the C-domain. Cf. the sentence in (18) (adapted from Radford 2004: 330):[22]

(18)   He prayed [$_{ForceP}$ that [$_{A-TopP}$ atrocities like those, [$_{FocP}$ never again [$_{Foc}$ would [$_{FinP...}$ he witness.]]]]

The topic feature that has triggered movement of *atrocities like those* in (18) is the A-Top feature, i.e. one of the linking features. The fact that this feature is found in a position that must be distinguished from Force and Fin makes it seem likely that it is not situated in the same head as the ϕ-features of C. It seems reasonable to assume that the ϕ-features are located in either Force or Fin; German dialects with subject-complementizer agreement suggest that the ϕ-features are sitting in a position which also hosts a complementizer. In the present context it is not crucial to choose between the two positions; the important point is that the ϕ-features and the linking features are not found in the same head. This means that no single probe in the C-domain will properly include the features of a pronoun, not even a ϕP one. Because of this, pronoun deletion is not possible in English.

6 Conclusion

In this paper I have proposed a new analysis of Old Norwegian null arguments. I have argued that the option of null expression in Old Norwegian correlates with a distinction between ϕP and DP pronouns (Déchaine & Wiltschko 2002), and that this distribution can be captured by a version of pronoun deletion in the sense of Roberts (2010b). On a more general, theoretical level I have argued that both the structure of pronouns and that of C, T and v influence the null argument properties of a language, and that the non-NAL status of Modern Norwegian and English are due to different underlying properties.

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[22] For simplicity I adopt Radford's (2004: 334) assumption that the finite verb moves to Foc, through Fin.

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Null arguments in Old Norwegian

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