Null arguments in Old Norwegian: interaction between pronouns and the functional categories of the clause

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 φP and DP pronouns in the sense of Déchaine & Wiltschko (2002), and that this distribution can be captured by a version of pronoun deletion (Roberts 2010b). On a more general, theoretical 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 non-null-argument languages like Modern Norwegian and English, may be derived in different ways.[0]

Key words: syntax, null arguments, syntactic variation, historical linguistics, Norwegian

1 Introduction

Null arguments in early Germanic have received an increased amount of attention in recent years (cf. e.g. Sigurðsson 1993 and Kinn et al. 2016 on Old Icelandic, Faarlund 2013 on Old Norse, Håkansson 2008, 2013 on Old Swedish, Heltoft 2012 on Old Danish, Axel 2007 on Old

High German, Breitbarth & Farasyn 2016 on Middle Low German, van Gelderen 2000, 2013, Rusten 2010, 2013 and Walkden 2013 on Old English, Rusten & Walkden 2016 on Middle English, as well as the comparative studies of Rosenkvist 2009 and Walkden 2014). 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, as illustrated in example 1; generic null subjects will not be discussed.[1]

(1) *Siðan baðo þæir hann fræista oc vita   ef **pro** satt være.*
     then asked they him try   and know if [it] true was
     'Then they asked him to try to find out if it was true.' (ÓSHL, 221945)

I will argue that the distribution of Old Norwegian null arguments correlates with a distinction between φP and DP pronouns (Déchaine & Wiltschko 2002), and that this can be accounted for by a 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 for the null argument properties of a language (cf. e.g. Biberauer 2008:50 and Roberts & Holmberg 2010). This means that null arguments can be derived in different ways (see e.g. Holmberg 2005, 2010, Roberts & Holmberg 2010, Neeleman & Szendrői 2007 and Walkden 2014).[2] I will draw attention to the further implication that *blocking* of null arguments in non-null-argument languages (non-NALs) may also be due to different underlying properties, 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 my principles of excerption. In section 4 I present some empirical observations on Old Norwegian null arguments. In section 5 I present my syntactic analysis. In section 6 I compare Old Norwegian to the non-NALs Modern Norwegian and English and to other early Germanic languages. Section 7 concludes the paper.

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

[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) and Duguine (2013).

2 Old Norwegian: definition and data

By Old Norwegian I mean the language used in Norway from the 11th century until the middle of the 14th century. The beginning of the period is marked by the emergence of significant differences between the varieties that are often collectively referred to as Old Nordic or Old Norse, which can be further divided into the main branches West Norse and East Norse (Ottosson 2002:787–788). West Norse refers (mainly) to Old Icelandic and Old Norwegian, while East Norse refers to Old Swedish and Old Danish; it is also rather common to use the term Old Norse exclusively about West Norse (see e.g. Faarlund 2004). Much of the current literature does not distinguish between the West Norse varieties, but there are some well-known phonological differences between Old Icelandic and Old Norwegian. One such difference concerns /h/ in initial position: Old Norwegian lost the initial /h/ before /l/, /n/ and /r/, while Old Icelandic kept it (Hagland 2013:616). Another difference is that the long vowels /æ:/ and /ø:/ collapsed in Old Icelandic but were retained as distinct phonemes in Old Norwegian (Hagland 2013:607, 616). As of yet, little is known about syntactic variation between Old Icelandic and Old Norwegian, but Nygaard (1894:3, n. 1) tentatively mentions some differences concerning DP syntax. To learn more about the relationship between Old Norwegian and Old Icelandic, it is particularly important to investigate Old Norwegian, which is the lesser studied variety.

My data are drawn from the Menotec corpus of annotated Old Norwegian texts, where I have conducted parts of the annotation and manually excerpted and tagged null arguments from two texts: all of *The Legendary Saga of St. Óláfr* (ÓSHL), except the skaldic poems, and a sample of 8 homilies from *The Old Norwegian Homily Book* (HOM).[3] *The Legendary Saga of St. Óláfr* has been dated back to around the middle of the 13th century (with some variation among scholars; see e.g. Seip 1929:4, Johnsen 1922:XI, Mundal 2004:273). It has not been translated from any foreign language, and it has dialect features indicating a central (Trønder) Norwegian origin (Hægstad 1922). According to Nygaard (1894), texts in "the classical saga style", like *The Legendary Saga of St. Óláfr*, are particularly well suited for syntactic studies. Nygaard (1894:1) considers the language of the sagas to come as close to

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[3]The Menotec corpus additionally consists of *Strengleikar* and *The Law Code of Magnús Lagabøti*. The annotated texts are now available via the interface of the PROIEL corpus, foni.uio.no:3000/users/sign_in.

the "natural, spoken language" as a written language possibly can. Though this claim is strong and perhaps debatable, it seems fair to consider *The Legendary Saga of St. Óláfr* a good point of departure for syntactic studies.

Like *The Legendary Saga of St. Óláfr*, the sample from *The Old Norwegian Homily Book* is prose, and it serves as a supplement to the saga data. *The Old Norwegian Homily Book* dates back to the beginning of the 13th century, and was probably written in Bergen (Haugen & Ommundsen 2010:12). The eight sermons that I have investigated are among the ones that Indrebø (1931:58–60) considers to be originally composed in Old Norwegian, rather than adapted from a specific foreign source text.

The subcorpus from which I have excerpted null arguments amounts to 51,000 tokens (words). When looking at syntactic properties apart from null arguments, I have occasionally queried the prose stories of *Strengleikar* and a law (*The Law Code of Magnús Lagabøti*) as a supplement. For practical reasons, I have not considered texts outside the Menotec corpus.

3 Principles of excerption

In this section I will present the principles according to which I have excerpted null arguments. In section 3.1 I clarify which omitted constituents I have included in my study, in section 3.2 I clarify my assumptions as to whether there is more than one type of null argument in Old Norwegian, and in section 3.3 I discuss the position of null arguments.

3.1 Extracting null arguments

I have systematically investigated null subjects of finite, non-imperative verbs. Null objects of finite verbs are also included in the study. Null objects of non-finite verbs and null complements of prepositions have been taken into account in contexts where they would not be allowed in Modern Norwegian (cf. section 4.1 for some examples). It can sometimes be difficult to decide whether verbs and prepositions actually require a complement; transitive verbs may be used intransitively (Åfarli & Creider 1987), and it can be hard to distinguish particles from regular prepositions. Because of this, I have not quantified the occurrences of null

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complements, and I have only considered the clearest cases.

Gaps in relative clauses are not a part of the investigation. Note, however, that I have included null arguments in relative clauses where something apart from the null argument has been relativized.

Old Norwegian null subjects are often found in the second of two coordinate clauses, but they are different from conjunction reduction in Modern Germanic in that they are not necessarily co-referent with the subject of the previous clause. Cf. the example in (2), where the null subject in the second coordinate clause is co-referent with the dative object of the first clause:

(2)   *þui*   *styrðe konongrenn sialfr* | *oc var* **pro** *allra skipa*
        that.DAT steered king.DEF   himself | and was [it] all   ships.GEN
        bazt.
        best
        'The king steered it himself, and it was the best of all ships.' (ÓSHL, 220715)

Borrowing a term from Magnusson (2007), I refer to coordinate structures like the one in example 2 as *subject-asymmetrical*. Subject-asymmetrical coordinations are included in my investigation. However, subject-*symmetrical* coordinations, where an omitted subject in the second coordinate clause is co-referent with the subject of the first clause, are excluded. An example is given in (3):

(3)   *En hann giængr at*   *hænne oc læggr um*   *hana bælltit.*
        and he   goes   towards her   and puts   around her   belt.DEF
        'And he goes over to her and puts the belt around her.' (ÓSHL, 218668)

An issue related to subject-symmetrical coordination is sentence boundaries. Sometimes it is not entirely clear whether we are dealing with independent main clauses or asyndetically conjoined clauses (i.e. without any overt conjunction). The example in (4) may serve as an illustration:

(4)   *Oc um*   *haustet var hann komenn austr i*   *kærialaland. for*   *þar*
        and about fall.DEF was he   come   east   in Karelia   went there
        upp i garðariki   *með hærskilldi. Toc þar sott*   *oc andaðezc*
        up   in Russian.empire with war.shield took there disease and died
        þar um   *haustet.*
        there about fall

'And in the fall he had come east to Karelia. From there he went up in the Russian empire to raid. There he became ill and died in the fall.' (ÓSHL, 219385 – 219387)

It is possible to interpret the sentences starting with the verbs *for* 'went' and *Toc* 'took' either as asyndetically (and subject-symmetrically) conjoined with the first sentence, or as independent main clauses with null subjects. In my study, cases like this have been considered in their individual context; example (4) and similar cases in *The Legendary Saga of St. Óláfr* were treated as a chain of independent main clauses; the pattern could be seen as a typical feature of ongoing narratives (Kinn 2016:120). In his study of null subjects in Old Swedish, Håkansson (2008:95) consistently excludes verb-initial sentences where the null subject is co-referential with the subject of the previous sentence, even when there is no conjunction. Håkansson's sample of null subjects is thus somewhat different from mine.

A final issue to be mentioned in this section is subject-like obliques. There has been much debate as to whether subject-like obliques actually have subject status in Old Norwegian and Old Icelandic; proponents of the oblique subject analysis are e.g. Rögnvaldsson (1995), Haugan (1998), Barðdal & Eythórsson (2003) and Eythórsson & Barðdal (2005), while e.g. Mørck (1994) and Faarlund (2001, 2004:194–195, n. 1) have argued against it. The status of subject-like obliques has consequences for the analysis of sentences like that in (5):

(5)　　*Hanum　var　　vǽl　fagnat.*
　　　　him.DAT　was.3SG　well　received
　　　　'He was received with good cheer.' (ÓSHL, 219731)

In (5) the passive verb *fagnat* 'received' takes the pronoun *Hanum* 'him' in the dative; this would be considered a subject on the analysis of e.g. Eythórsson & Barðdal (2005), but an object on the analysis of e.g. Faarlund (2001). Since the Menotec annotation scheme allows the subject label only for nominative constituents, I do not assume oblique subjects in Old Norwegian. This does not have very wide-ranging implications for my study, but the following can be noted: first, I treat unexpressed subject-like obliques as null objects and not null subjects. An example of this is given in (6):

(6)　　*Synizc　þetta　**pro**　sannlega　mǽllt.*
　　　　seemed　this　[him]　truly　　　said
　　　　'It seemed to him that these were true words.' (ÓSHL, 219784)

The verb *sýnast* in (6) takes an experiencer in the dative, which has been left unexpressed. I consider this to be a null object. Conversely, I analyze examples like (7) as having a null subject:

(7)   *kon-ongrenn spyr æftir hui þorarenn kom æigi til borðz | þa var*
      king.DEF   asks after why Þórarinn came not to table | then was
      ***pro** hanum sact.*
      [it] him   said
      'The king asks why Þórarinn did not come to the table. Then he was told why.'
      (ÓSHL, 220055)

If *hanum* were to be analyzed as an oblique subject, there would be no null subject in (7), but rather a null object, referring to what the king was told. Note that Håkansson (2008:96) excludes sentences with subject-like obliques from his study of null subjects in Old Swedish.

3.2   One or more types of null arguments?

There has been some debate as to whether all null arguments in early Germanic languages are actually the same syntactic phenomenon. An alternative is to assume a separate mechanism of topic-drop, similar to what we find in modern Germanic.[4] Cf. the Modern Norwegian example in (8):

(8)   *Ø   fikk ny leieboer med hund.*
      [we] got new tenant with dog
      'We got a new tenant with a dog.' (The NoTa corpus, Nygård 2013:49)

On the assumption of a distinct mechanism of topic-drop in Old Norwegian, one could argue that omitted constituents in verb-initial, declarative main clauses (i.e. the only environment in which modern topic-drop may occur) are potentially not relevant as evidence in a study like this. Thus, the question of topic-drop is important for the interpretation of the data.

     Sigurðsson (1993) suggests that Old Icelandic has two ways of deriving null arguments: topic-drop and *pro*-drop. In Sigurðsson's (1993) framework, topic-dropped arguments result

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[4]I remain agnostic to the formal analysis of topic-drop; for further discussion, see e.g. Stjernholm (2008) and Nygård (2013) on Norwegian, Platzack (1998:104–105) and Mörnsjö (2002) on Swedish, Thráinsson & Hjartardóttir (1986) and Thráinsson (2007:277) on Icelandic, Sigurðsson (1993) on Old Icelandic and other Germanic languages, Haegeman (1990, 2000) and Weir (2012) on English, de Korte (2008) on Dutch, Trutkowski (2011) on German, and Walkden (2014) and Sigurðsson (1989, 2011) for cross-linguistic accounts.

from the presence of a topic operator in Spec-CP, and they are found in verb-initial, declarative main clauses only, i.e. in the same environments where we find topic-drop in Modern Germanic. *Pro*-drop, on the other hand, involves a null pronoun, and is found in subordinate clauses and non-verb-initial main clauses.

Håkansson (2008, 2013), Walkden (2014) and Sigurðsson's more recent (2011) cross-linguistic study of null arguments, all assume a single (though not the same) way of deriving null subjects. This has advantages in terms of theoretical economy; Kinn et al. (2016) argue that the unified approach can be supported also on empirical grounds. One of Sigurðsson's arguments for the distinction between topic-drop and *pro*-drop is an alleged difference in antecedent relations: Sigurðsson (1993:251–252) proposes that *pro* always requires an overt DP antecedent in the preceding linguistic context (an NP antecedent in his terminology), whereas dropped topics in verb-initial main clauses may occur without an overt DP antecedent.[5] The corpus study of Kinn et al. (2016) argues that antecedentless null arguments in Old Icelandic may occur in not only verb-initial main clauses, but also in subordinate clauses and non-verb-initial main clauses, i.e. in the contexts where Sigurðsson (1993) does not predict they will occur. In my Old Norwegian data set, I have found the following sentence, which goes against the predictions of Sigurðsson (1993):

(9)   ... *þa*   *var*   *konongenom*   *sact*   *fra*   *stæini*   *þæim*   *er*   *hinn*   *hælgi*
           ...   then   was   king.DEF   told   from   rock   that   COMP   the   holy

       Olafr   *konongr*   *fell*   *a.* | *Oc*   *enn*   *kveða*.3PL   ***pro***   *bloðe*   *drivinn.*
       Óláfr   king   fell   on | and   still   say   [they]   blood.DAT   sprayed

       'Then the king was told about the rock on which the holy king Óláfr fell. And people say that it is still sprayed with blood.' (ÓSHL, 222122)

In (9), the agreement morphology of the verb indicates a plural null subject, which refers to people who are familiar with the rock on which Óláfr fell. These people are not previously mentioned, but must be inferred from the context. I have not been able to count the number of *overt* antecedentless pronouns in my corpus, which would be necessary to establish more firmly how common the pattern in (9) is. I will not draw any firm conclusions based on exam-

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[5]On Sigurðsson's (1993) account, antecedentless topic-drop is possible because dropped topics can be identified by "free coindexing at LF with a construed, clause-external topic" (Sigurðsson 1993:260). The antecedent of a dropped topic can be split, partial or not present at all (Sigurðsson 1993:252); in the latter case, it must be inferred from the context.

ple (9) in isolation, but I think it is fair to say that the empirical motivation for distinguishing between pro-drop and topic-drop in Old Norwegian on the basis of Sigurðsson's (1993) argument can be questioned.

A further reason to be sceptical to the division between *pro*-drop and topic-drop concerns the reasons for assuming topic-drop as a distinct phenomenon in Old Norwegian (and other early Germanic languages) in the first place. A motivation could, at least potentially, be that it implies diachronic continuity with topic-drop in modern Germanic languages. However, the pragmatic conditions on topic-drop in modern Germanic are different from the pragmatic conditions applying to null arguments (in all syntactic positions) at the earlier stages. Modern topic-drop is primarily found in the spoken language; in the written language, it is restricted to certain registers, e.g. diaries, letters, postcards, emails, headlines and telegrams (Nygård 2013:42–46 with further references). Null arguments in Old Norwegian are found in a wider range of stylistic contexts. Moreover, anticipating the discussion in section 4.3, null arguments in Old Norwegian (in all syntactic positions) are subject to a person asymmetry which does not apply to modern topic-drop (e.g. Mörnsjö 2002:70, de Korte 2008, Weir 2012, Nygård 2013, Kinn et al. 2016). While omission of 1st (and 2nd) person pronouns is very rare in Old Norwegian, modern topic-drop of the 1st person is actually particularly common, both in the written and spoken language (Wiggen 1975:88, Faarlund et al. 1997:676, Wendt 2006, Nygård 2013:46). Thus, upon closer inspection, topic-drop in modern Germanic is not simply the old null arguments with a more limited syntactic distribution; topic-drop differs from the old null arguments in other ways too.[6]

I adopt the hypothesis that all Old Norwegian null arguments are derived in the same manner, i.e. that Old Norwegian does not have topic-drop as a distinct, syntactic phenomenon. This means that null arguments in verb-initial, declarative main clauses are included in the investigation on a par with null arguments in subordinate clauses and non-verb-initial main clauses.

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[6]Kinn (2016:222ff) argues that topic-drop in Norwegian (referred to as *modern discourse ellipsis*) arose in the Middle Norwegian period.

3.3 The position of null arguments and rendering of linguistic examples

I treat null arguments in Old Norwegian as phonologically silent pronouns, and mark them as *pro*. It is sometimes difficult to determine the position of a null argument on independent grounds; for simplicity, I insert subject *pro* in the canonical subject position (Spec-TP) and object *pro* in the position where we would expect an overt, unstressed pronoun to occur. As mentioned above, I do not assume topic-drop as a separate syntactic phenomenon in Old Norwegian, but it is still possible that some null arguments move to the C-domain (or other phase edges) prior to deletion. Note, though, that the syntactic analysis that I will propose in section 5 does not hinge on whether or not a null argument moves. Thus, too much theoretical significance should not be attached to the exact position of *pro* in the linguistic examples; the main point is that a null pronoun is present in the structure.

4 Null arguments in Old Norwegian: empirical observations

4.1 Syntactic environments

Referential, definite arguments in Old Norwegian are mostly overt, but may also be null. Null arguments are often subjects; some examples are given in (10).

(10)   a. *margygr   var **pro** kallat*
           sea-ogress was [it] called
           'It was called a sea-ogress.' (ÓSHL, 219002)

    b. *Siðan baðo þæir hann fræista oc   vita   ef **pro** satt være.*
           then   asked they him   try   and know if [it] true was
           'Then they asked him to try to find out if it was true.' (ÓSHL, 221945)

    c. *þat er fornt skip nokcot | se   hvesso gratt **pro** er oc   skamt.*
           that is old   ship some | see.IMP how   grey [it] is and short
           'That is an old ship. See how grey and short it is.' (ÓSHL, 220664)

d. *hvat monu smyrslen þa nema renna ór sareno á brout*
what could ointment.DEF then but run out.of wound.DEF on road
*með ulicans bloðe ok vage. | ok grǿr **pro** ecci.*
with different blood and pus | and heals [it] not
'What could the ointment do then, except running from the wound with blood and pus? And the wound does not heal.' (HOM, 208992)

e. *Oc þui næst com **pro** firir brǿðr hænnar.*
and that next came [it] before brothers her
'And then her brothers became aware of it.' (ÓSHL, 221835)

Objects of verbs and complements of prepositions may also be null; some examples are given in (11):

(11) a. *hon sægir at þat sværð bar haralldr faðer hans. [...] hann*
she says COMP that sword carried Haraldr father his [...] he
*kuaz nu mindu træystazt at bera **pro**. Oc giængr i braut*
says.REFL now intend dare.REFL to carry [it] and goes in road
*með **pro**.*
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, 218784)

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, 208237)

As the examples illustrate, null arguments in Old Norwegian occur in both main and subordinate clauses (compare e.g. (10a and b)). When found in main clauses, they are not restricted to the clause-initial position, as can be seen in e.g. (10a). Subject-asymmetrical coordinations, like in (10d), are a rather common environment for null subjects, but null arguments are by no means restricted to such contexts. [7]

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[7]Faarlund (1990:103–105) proposes a conjunction reduction analysis of null arguments in Old Norse, but this leaves much data unaccounted for.

4.2 Clause type

Previous studies have noted an asymmetry with respect to the distribution of null subjects in different clause types in early Germanic:[8] in Old High German, Old English, Old Swedish and Old Saxon, null subjects are clearly more frequent in main clauses than in subordinate clauses (Håkansson 2008, 2013, Axel 2007, Rosenkvist 2009, Walkden 2014). In Old Icelandic, however, the situation seems to be different. This is mentioned by Sigurðsson (1993) and shown quantitatively by Walkden (2014:167) (see also Kinn et al. 2016:47): in the Old Icelandic texts that Walkden has investigated, clause type is either not statistically significant, or the tendency is the opposite of what we find in the other languages, i.e., null subjects are more frequent in subordinate clauses.

In Old Norwegian, as mentioned, null arguments occur in both main and subordinate clauses. In *The Legendary Saga of St. Óláfr*, they are clearly more frequent in main clauses; cf. table 1. In the sample from *The Old Norwegian Homily Book*, however, null subjects are slightly, but not significantly, more frequent in *subordinate clauses* (I used an equality of proportions test, p = 0.3909).

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

Clause type	Overt subject pronoun	Null subject	Total
Main	1298 (77.2%)	384 (22.8%)	1682 (100%)
Subordinate	765 (94.0%)	49 (6.0%)	814 (100%)
Total	2063 (82.7%)	433 (17.3%)	2496 (100%)

Table 2: Referential, pronominal subjects in non-imperative clauses in the sample from *The Old Norwegian Homily Book*, by clause type.

Clause type	Overt subject pronoun	Null subject	Total
Main	171 (93.4%)	12 (6.6%)	183 (100%)
Subordinate	164 (92.1%)	14 (7.9%)	178 (100%)
Total	335 (92.8%)	26 (7.2%)	361 (100%)

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[8]I am not aware of quantitative discussions of null objects.

These quantitative results do not warrant any firm conclusions as to the general effect of clause type on null subjects in Old Norwegian. From a qualitative point of view, however, it is worth noting that null subjects occur in a wide range of subordinate contexts; they are attested in *at-* ('that'-) clauses, indirect questions, adverbial clauses and relative clauses, as illustrated in (12):

(12) a. *Sægir hann þat at   ǽigi man **pro** satt vera.*
          says   he   that COMP not can [it]   true be
          'He says that it cannot be true.' (ÓSHL, 220299)

      b. *En er   hann dro bogann   þa brast hann i sundr i tvau*
          and when he   drew bow.DEF then burst it   in asunder in two
          *firir hanum. | Oc vissi **pro** ǽigi hvi **pro** sǽtte.*
          for   him | and knew [he]   not how [it]   came.about
          'And when he drew the bow it burst in two. And he did not know how that came about.' (ÓSHL, 219373)

      c. *Nu tǽcr læcnir   brodd ór   sare   eða ór   ef **pro** í stǽndr.*
          now takes physician spike out.of wound or arrow if [it]   in stands
          'Now the physician takes the spike out of the wound, or the arrow, if it is still there' (HOM, 208995)

      d. *Oc þotte   farunautum Olafs harallz sonar ǽigi auðvǽllt undan at*
          and seemed companions Óláfr's Haraldr's son   not easy   away to
          *styra **þaðan**   sem **pro** komner varo.*
          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, 219040)

Walkden (2013) suggests that null subjects in Old English are a main clause phenomenon in the sense of e.g. Hooper & Thompson (1973). Axel (2007) suggests that Old High German null subjects are conditioned by verb movement to C, and that null subjects are rare in subordinate clauses because V-to-C movement is very restricted in that context (see also Rosenkvist 2009:160). In Old Norwegian, however, the range of subordinate clauses exhibiting null arguments is wider than the range of subordinate clauses generally assumed to have V-to-C movement (i. e. complementizerless conditional clauses, the second of two conjoined subordinate clauses and certain clauses introduced by *at* 'that' (Faarlund 2004:252–253)). Note also the word order in examples (12a, c and d) respectively: here, the verb is preceded by a negation, a preposition and a participle, which probably indicates that its position is below the

C-domain. In sum, although null subjects are more frequent in main clauses in *The Legendary Saga of St. Óláfr*, there does not seem to be any strict syntactic restriction against null subjects in subordinate clauses in Old Norwegian.

4.3 Person features

Previous grammatical literature has noted that Old Norwegian null arguments are almost always 3rd person (see e.g. Nygaard (1894, 1905:10–11) and, more recently, Faarlund 2013). This observation is corroborated by quantitative data from my corpus; cf. tables 3 and 4.[9, 10]

Table 3: Referential, pronominal subjects in non-imperative clauses in *The Legendary Saga of St. Óláfr*, by person

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 4: Referential, pronominal subjects in non-imperative clauses in sample from *The Old Norwegian Homily Book*, 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%)

As table 3 shows, 21.6 percent of the 3rd person subjects in *The Legendary Saga of St. Óláfr* are null, but only 0.9 percent of the 1st person subjects and 0.5 percent of the 2nd person subjects. In the sample from *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

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[9]Like in tables 1 and 2, only subjects are included.

[10]I have not systematically investigated the number features of null subjects as compared to overt subjectes. A reviewer points out that most of the cited examples of null subjects in this paper are in the 3rd person singular, but I must leave the question of whether plural null subjects are actually less frequent for future research.

null subjects are not attested.[11] In terms of absolute numbers, the instances of 1st and 2nd person null subjects in my data set amount to 5; it is also worth mentioning that I have not found any instances 1st or 2nd person null objects. The distribution of null arguments in Old Norwegian is thus characterised by a clear asymmetry with respect to grammatical person – 1st and 2nd person null arguments are very rare as compared to 3rd person null arguments.

To sum up section 4, we have seen that Old Norwegian null arguments are found in both main and subordinate clauses, and that they occur in various syntactic environments in both clause types. We have also seen that null arguments are almost always 3rd person.

5   A syntactic analysis: only φPs can be deleted

Descriptively speaking, the restricted null argument property of Old Norwegian makes it resemble a partial NAL in the sense of Walkden (2014).[12] 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 deleted. Two points that distinguish my analysis from previous analyses are worth mentioning: first, it does not predict that null arguments are confined to main clauses or to clauses with verb movement to C, as opposed to Walkden (2013) and Axel (2007). Second, it straightforwardly predicts the asymmetry between the 1st and 2nd persons on the one hand vs. the 3rd person on the other. This does, arguably, not directly follow from the proposals of e.g. Walkden (2014) (cf. Kinn 2016:152ff for discussion),
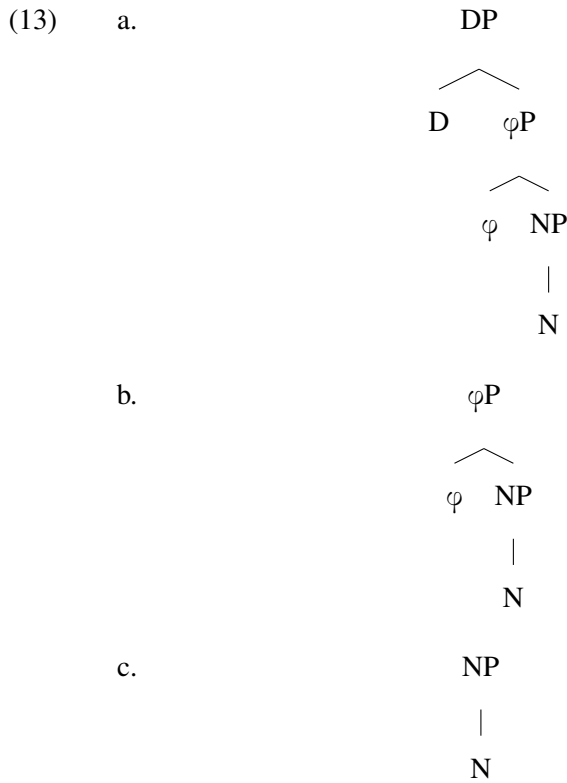
---

[11]I have tested statistical significance using an equality of proportions test which yielded the following results: p = 2.2e-16 for 1st vs. 3rd person null subjects in *The Legendary Saga of St. Óláfr*, 8.459e-12 for 2nd vs. 3rd person null subjects in *The Legendary Saga of St. Óláfr* and 0.0005305 for 1st vs. 3rd person null subjects in the *Old Norwegian Homily Book*. If generic subjects in the sense of Holmberg (2010) are excluded (these are basically always 3rd person null subjects), the figures are as follows: the p-value for 1st person vs. 3rd person in *The Legendary Saga of St. Óláfr* is 2.2e-16 and 3.484e-11 for 2nd vs. 3rd person. If generic subjects are excluded from *The Old Norwegian Homily Book*, the difference between 1st and 3rd person has a p-value of 0.004299.

[12]Walkden (2014) builds on previous work by Roberts & Holmberg (2010) and Holmberg (2010), who use the term partial null *subject* language (NSL). I use the term NAL because several of the relevant languages seem to allow null objects in addition to null subjects (see e.g. Walkden 2014 on early Germanic languages, Huang 2000:85–86 and Frascarelli 2007:723 on Finnish (though Holmberg 2016 takes a critical view) and Farrell 1990 on Brazilian Portuguese). The term NAL raises the question of whether Old Norwegian should be grouped together with e.g. South-East Asian languages, which also allow null arguments apart from subjects (these languages are referred to as *radical NSLs* in the typology of Roberts & Holmberg 2010). I leave this question open, but cf. e.g. Barbosa (2013), Duguine (2013) and Sigurðsson (2011) for approaches that unify partial and radical NALs, typologically speaking.

Håkansson (2008, 2013) or Holmberg (2010).[13]

5.1 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, φPs and NPs, as illustrated in (13).

(13)   a.

```
              DP
             /  \
            D    φP
                /  \
               φ    NP
                    |
                    N
```

b.

```
            φP
           /  \
          φ    NP
               |
               N
```

c.

```
          NP
          |
          N
```

As is evident from the syntactic trees in (13), the pronoun types differ in terms of syntactic category and internal structure. In our context, the crucial distinction is that between DPs and φPs, which I will discuss in what follows.

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[13]Cole (2010) and Sigurðsson (2011) observe that 1st and 2nd person pronouns are special in referring to speech act participants; however, neither of their accounts predicts a scenario in which omission of the 1st and 2nd persons is *disfavored*. On the contrary, Cole (2010:301) emphasizes the salience of the speech act participants and adopts the hypothesis that "languages with null subjects in the third person should also have null subjects in the first and second person, but not necessarily vice versa." The Old Norwegian facts are unexpected in the context of this hypothesis. Sigurðsson (2011:e.g. 273) argues that 1st and 2nd person pronouns, as opposed to 3rd person pronouns, are "inherently C/edge-linked." This may, under Sigurðsson's approach, promote omission, but it is not clear how it could prevent it.

DPs are the biggest pronoun category. The presence of the D-layer, which is not found in φPs, 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). φPs, on the other hand "lack inherent semantics" and "simply spell out φ-features" (Déchaine & Wiltschko 2002:410–411). Relatedly, they cannot function as determiners; the NP in the complement position of φP resembles what Barbosa (2013), with reference to Elbourne (2005), calls a "default, nearly semantically empty nominal [NP e]" and cannot be replaced by a lexical noun.[14]

In English, according to Déchaine & Wiltschko (2002), 1st and 2nd person pronouns are DPs, while 3rd person pronouns are φPs. This accounts for the data in (14):

(14)   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 (14a–b) are DPs and can function as determiners, whereas *they* in (14c) is only a φP and thus cannot do this.[15, 16] Having introduced the framework of Déchaine & Wiltschko (2002), I now turn to the pronominal system of Old Norwegian.

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

[15]As is well-known, it is only 1st and 2nd person *plural* pronouns in English that can function as determiners; 1st and 2nd singular pronouns cannot (see e.g. Postal 1969). Déchaine & Wiltschko (2002:421, n. 12), who analyze *all* English 1st and 2nd person pronouns as DPs, acknowledge this as a potential problem, but have no account for it. I have no explanation for the English facts, but cf. footnote 17 about the 2nd person sg. in Old Norwegian. Déchaine & Wiltschko (2015) suggest that English has homophonous φP versions of the 1st and 2nd person pronouns that may function as bound variables. I leave it open whether this is the case in Old Norwegian too.

[16]A reviewer points out that 1st and 2nd person prounouns in French behave differently. In French, 1st and 2nd person pronouns cannot replace articles/determiners; if they co-occur with a noun, the noun needs an article: *nous les linguistes*. This could be taken to suggest that French 1st and 2nd person pronouns are of a different nature than English ones; if not, it is a potential problem for Déchaine & Wiltschko's model.

Table 5: Old Norwegian personal pronouns, 1st and 2nd person

	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

5.2 Pronouns in Old Norwegian

In this section I will discuss the pronominal system of Old Norwegian in terms of the DP vs. φP distinction. 1st and 2nd person pronouns are treated in section 5.2.1; 3rd person pronouns are treated in section 5.2.2. I will argue that the Old Norwegian pronominal system is similar to that of English in that 1st and 2nd person pronouns are DPs, whereas 3rd person ones are φPs.

5.2.1 1st and 2nd person pronouns as DPs

An overview of 1st and 2nd person pronoun forms in Old Norwegian is given in table 5. In the Menotec corpus, most of the 1st and 2nd person pronouns are attested in contexts that seem equivalent to the *we linguists*-examples of Déchaine & Wiltschko (2002). This is illustrated in (15).[17]

(15) a. *Hann hævir þat spurt. At **ver dælir** æigum oss ny guð.*
he has that heard that we dalesmen get ourselves new god
'He has heard that we dalesmen have a new god.' (ÓSHL, 219475)

b. *EN ef hann þui suarar at þerssor iorð var logboðen **yðr***
and if he that answers that this land was lawfully.offered you
***frendom**...*
kinsmen...
'And if he answers that this land was lawfully offered to you kinsmen...' (The Law Code of Magnús Lagabøti, 216559)

---

[17] Note that in example (15d), a 2nd person *singular* pronoun co-occurs with a lexical noun. This arguably makes the DP status of 2nd person pronouns in Old Norwegian even clearer than that of 2nd person pronouns in English; cf. footnote 15.

Table 6: Old Norwegian personal pronouns, 3rd person. (Forms that are also used as demonstratives in *italics*)
.

	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*

    c. *En   nu   með þui at   **þit**   **felagar** kalleð guð ykcan sva*
      and now with that COMP you.two fellows call   god your   so
      margar iartæignir gera þa   late   hann vera solskin i   morgon
      many   wonders   do   then let.SBJV he   be   sunshine in morning
      'And now, since you fellows say that your god can do so many wonders, he should let there be sunshine tomorrow.' (ÓSHL, 219586)

    d. ***Þu maðr*** *kvað hon...*
      you man   said she
      "'You," she said.' (Strengleikar, 223212)

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

5.2.2   3rd person pronouns as φPs

An overview of Old Norwegian 3rd person pronouns is given in table 6. I will start by discussing the sg. m. and f. forms *hann* 'he' and *hon* 'she'.

If *hann* and *hon* are φPs, 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 (16).[18]

(16)   a. *Uin   kvað **hann riddarinn**. Giarna vil ec fylgia þer*
        friend said he   knight.DEF gladly will I   follow you
        'Friend, said he, the knight, I will gladly follow you.' (Strengleikar, 223403)

---

[18]There are also a few instances of *hann* co-occuring with a proper name; these will be discussed in detail in section 6.1.

b. *Sægi at lannzhærrenn man vera **hanum** otrur **konongenom***
say that people.of.country.DEF may be him unfaithful king.DEF
'They say that the people of the country may be unfaithful to him, the king.'
(ÓSHL, 220959)

The cases in which *hann* co-occurs with a noun are, however, systematically different from the examples with a 1st/2nd person pronoun and a noun shown in (15). First, the nouns with which *hann* co-occurs are definite; cf. the forms *riddarinn* 'the knight' and *konongenom* 'the king' in (16). Second, *hann* does not seem to add any demonstrative or definite meaning, contrary to the 1st and 2nd person pronouns in (15). Third, *hann* does not necessarily *directly* precede the noun, as can be seen in (16b). In my corpus, I have not found this type of word order in the context of 1st and 2nd person pronouns (except with vocative nouns). Based on these observations I assume, with Faarlund (2004:89–90), that the nouns in (16) are not complements of *hann*, but rather appositions. Now, since *hann* and *hon* do not seem to take noun complements, I analyze them as φPs.

The case of 3rd sg. n. *þat* 'it' and 3rd pl. *þeir/þær/þau* 'they' is somewhat more complicated than *hann/hon* '*he/she*'. The reason for this is that *þat* and *þeir*[19] 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 φPs; I will refer to them as DPs when they appear in such contexts.[20] Cf. example (17).

(17) a. *... Oc sægir at **þat barn** mindi værða mikill mærkismaðr.*
...and says that that child might become great distinguished.person
'... and says that that child might become a very distinguished person.'
(ÓSHL, 218683)

b. *ok fell þar þa fyrir þæim fa liðum flester aller*
and fell there then for them with.few.followers most all
***þæir hæiðnu menn**.*
those heathen people
'There, at that time, most of those heathens were killed by them, though they were few.' (HOM, 209906)

The lexicon may, however, contain homophonous, but distinct versions of *þat* and *þeir* that are

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[19]Henceforth I will, for convenience, only refer to the m. form, as this form occurs most frequently in contexts relevant in the contexts that are relevant to us.

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

φPs and not DPs. Such an assumption seems reasonable if it can be shown that *þat* and *þeir* are found in contexts where DPs (like 1st and 2nd person pronouns and the demonstrative *sjá*) generally do not seem to occur. Evidence that *þat/þeir* occur in such environments is found; cf. the examples in (18):

(18)   a. *þat blotaðu   **þæir lanzmennener***
             that worshiped they people.of.the.land.DEF

             'The people of the land worshiped it [a pig].' (ÓSHL, 219006)

      b. *En **þat** er ret **at** **kenni** **menn** **gefa** **gaum**   **at** **guðs***
             and that is right that priests   give attention to God's
             ***boðorðe**.*
             commandment

             'And it is right that priests pay heed to God's commandments.' (HOM, 208237)

      c. *oc hittazc   **þæir** nu   **namn-arner***
             and meet.REFL they now namesakes.DEF

             'And now they met, the namesakes.' (ÓSHL, 219818)

      d. *Nu rædazk   **þæir** við   **bræðrner** i valenom*
             now speak.REFL they against brothers.DEF in battlefield.DEF

             'Now the brothers spoke in the battlefield.' (ÓSHL, 221625)

In (18a, c–d), *þeir* co-occurs with definite nouns. In my corpus, I have not found 1st and 2nd person pronouns or demonstrative *sjá* in such contexts.[21] In (18b–d) there is discontinuity between *þat/þeir* and a (presumably) appositional noun (or, in the case of (18b), an appositional subordinate clause). As mentioned, this is a syntactic pattern that I have not observed with 1st and 2nd person pronouns or demonstrative *sjá*.

     In sum, *þat* and *þeir* arguably 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.

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[21]There are some cases involving a noun modified by an adjective with a pre-adjectival *hinn*, but it is not clear that this should be analyzed on a par with the postposed, bound definiteness marker illustrated in (18); see Börjars et al. (2016) for a recent discussion.

5.3 Derivation of null pronouns: the deletion analysis of Roberts (2010b)

In section 4.3 I established that Old Norwegian null arguments are almost always 3rd person. In the previous section I argued that 3rd person pronouns, and 3rd person pronouns only, belong to the category φP. There thus seems to be a correlation between the φP category and possibility of null realization.[22] In the following I will argue that this correlation can be formally accounted for by (a slightly revised version of) pronoun deletion in the sense of Roberts (2010b).[23]

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 (19), adapted from Roberts (2010b:76); cf. also Roberts (2010a).

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

Roberts (2010b) discusses pronoun deletion in the context of consistent null-subject languages (consistent NSLs), like e.g. Italian.[24] 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.

---

[22] As shown in section 4.3, I found five instances of 1st and 2nd person null arguments in my data set (less than 1% of all 1st and 2nd person pronominal subjects). I have no formal analysis of these cases.

[23] A reviewer points out that Kayne (2000:176) observes certain contexts in which only 3rd person pronouns can be null in Italian too.

[24] 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.

5.4   Deletion in Old Norwegian

In Old Norwegian and its contemporary Scandinavian 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, Rosenkvist 2009). To account for the Old Norwegian data I propose that null arguments are not deleted in Agreement with T, but in Agreement with C and other phase heads.[25] 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 raises the question of which features are found in the C-domain. I assume, uncontroversially, that C has Force and Fin features (e.g. Rizzi 1997). Following e.g. Chomsky (2004, 2007, 2008), Ouali (2008), Miyagawa (2010) and Haegeman & van Koppen (2012) I also assume that C has $u\varphi$-features.[26]

Although I am currently not aware of overt evidence of φ-features in C in Old Norwegian, West Germanic dialects with subject-complementizer agreement indicate that this possibility is not excluded in a Germanic context (Bayer 1984, Miyagawa 2010:16, Weiß 2005, Haegeman & van Koppen 2012).[27] I leave open the question of whether the φ-features in C are discrete from those in T, as argued by Haegeman & van Koppen (2012), or shared between C and T. However, the fact that Old Norwegian null subjects do not seem to rely on Agreement with T may possibly suggest that the features are discrete.

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

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[25]Note that I do not reject Roberts' analysis of consistent NSLs like Italian. On the contrary, the revised version that I propose is based on the idea that the deletion mechanism in Old Norwegian is basically the same as in Italian; however, it yields a different result (e.g. definite null objects) because the structural make-up of pronouns and clausal functional categories is different in Old Norwegian.

[26]A precursor of this idea can be found in Platzack (1986).

[27]Walkden (2014:215ff) also assumes a φ Probe in the left periphery of Germanic beyond the varieties with overt subject-complementizer agreement. Walkden proposes that this Probe licenses Modern Germanic topic-drop, however, and not the more general null argument property found in Old Norwegian.

various Topic features (A-Top, C-Top, Fam-Top, see Rizzi 1997 and 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 (20), where they do not refer to the actual speaker and hearer of the utterance, but rather to the persons mentioned in the matrix clause:

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

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

The deictic shift in (20) 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).[28] I take this to suggest that linking features are a relevant category in the analysis of Old Norwegian; they may even be universal, as Sigurðsson (2011, 2014) suggests (see e.g. Julien 2015 on deictic shifts in Modern Mainland Scandinavian).
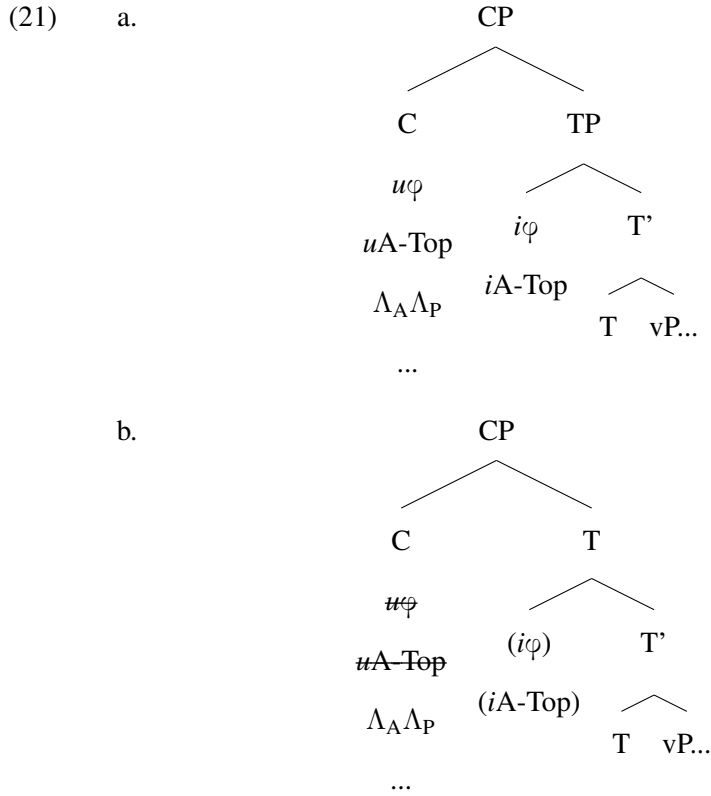
I follow Giorgi & Pianesi (1997) in assuming that the features of the C-domain do not necessarily head their own projections. Rather, features can either be *clustered* in one, syncretic head, or *scattered* on several heads, the choice between the two options being a point of variation between languages. 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 & Hinterhölzl 2007).[29] I see no reason to deviate from the simplest possible analysis, in

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[28]Iversen (1972) describes them as anacolutha, but I find the deictic shift analysis more convincing.

[29]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).

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 φP 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 (21). The tree in (21a) illustrates the relationship between C and the subject pronoun in Spec-TP prior to Agreement; the tree in (21b) shows the situation after Agreement has taken place. (~~Strikethrough~~ marks features that have been valued, parentheses mark deletion.)

(21) a.

```
                        CP
                       /  \
                     C      TP
                    uφ     /  \
                  uA-Top  iφ    T'
                  ΛₐΛₚ   iA-Top  / \
                                T   vP...
                   ...
```

b.

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

In (21) the subject pronoun has φ-features and an A-Top feature; these features are properly included in C's features.[30] 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.

A question that arises at this point is why not *all* φP pronouns are deleted. As was said in section 4.1, pronouns are more often overt than null in Old Norwegian, and this applies even to 3rd person pronouns, which I have argued to be φPs. Something must prevent deletion in

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[30]A reviewer asks whether it is possible for a φP to have a Topic feature: "If a φP cannot act as a determiner, it is not immediately clear that it can contain edge features..." In the model that I am assuming, the informations-structural feature of the φP pronoun is not in itself an Edge-feature, or linking feature, in Sigurðsson's sense, rather, it *Agrees with* a linking feature in C.

these cases. I propose, informally, that the option of overt φP pronouns in Old Norwegian is related to the *accessibility of the antecedent*: null arguments in Old Norwegian seem to have in common that their antecedent is extremely accessible in the sense of Ariel (1990) (see Kinn 2016:134ff, 177). I leave it to future research to provide a fully fleshed-out formal account of how deletion of pronouns whose antecedents are not sufficiently accessible is prevented.[31]

Old Norwegian null objects are, in my analysis, derived basically in the same way as null subjects. However, the Agreement relation that renders an object as 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). 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 extremely accessible φPs.

6   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-NALs Modern Norwegian and English, and to other early Germanic languages, which are partial NALs. I will propose 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. I will also argue that the analysis proposed for Old Norwegian may possibly be

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[31]The same question, i.e. why overt weak, unstressed pronouns are being used, arises in the analysis of other partial NALs too; van Gelderen (2013:281) articulates it very clearly in her discussion of Old English: "...we don't have a very clear prediction of when pro drop will occur or when a pronoun will." To resolve the issue, van Gelderen (2013) follows Frascarelli (2007:713), who proposes that overt, weak pronouns in null subject languages are used idiosyncratically by individual speakers as a means to restate the aboutness topic.

extended to other early Germanic languages, although the null argument properties of these languages are not completely uniform.

6.1 Old Norwegian vs. Modern Norwegian

In Modern Norwegian, null arguments of the Old Norwegian type are no longer available. Interestingly, the (overt) pronominal system in Modern Norwegian also appears to be different from the Old Norwegian one: all personal pronouns now exhibit DP properties; in other words, the pronouns that I analyzed as φPs in Old Norwegian seem to have changed. An indication of this is the fact that *han* 'he' and *hun/ho* 'she', the cognates of *hann* and *hon*, are now clearly able to function as determiners. *Han/hun/ho* exhibit determiner properties in two syntactic contexts: as psychologically distal demonstratives, and as preproprial articles.[32]

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 (22) (from Johannessen 2008b:164–166).

(22)   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.' (Oslo Norwegian, NoTa, M, 36)

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

The PDDs in (22) signal that the speaker (or perhaps the addressee) does not know the persons under discussion.

It may be noted that the complements of *han* and *hun* are definite; in (22a) the complement is a proper name, in (22b) a common noun with a suffixed definite article. In section 5.2.2 I took the definiteness of nouns co-occurring with *hann/hon* 'he/she' in Old Norwegian to be

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[32]*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.

an indication 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 et al. 1997:296ff, Julien 2005:26ff, Dyvik 1979). The fact that the nouns in (22) are "already" definite does therefore not contradict the analysis of *han* and *hun/ho* as a type of determiner with a noun complement.

As Johannessen (2008b:178) points out, the PDD is in complementary distribution with the definite determiner *den* 'that'. Cf. Johannessen's example in (23):

(23)   a. Definite determiner

       *(den)   tyske   ingeniørtroppen
       the   German   engineering-troop.DEF

     b. PDD

       hun   gamle   lærerinnen   vår
       she   old   teacher.DEF our

     c. PDD + definite determiner

       *han   den   lille   mannen
       he   the   little   man.DEF

The fact that the PDD cannot be combined with other determiners suggests that it heads a DP.[33]

Preproprial articles exist in many Norwegian varieties (cf. e.g. Julien 2005, Dahl 2015, Johannessen 2008b, Håberg 2010). As opposed to PDDs, they do not express psychological distance. In some varieties they are obligatory with all person names, in other varieties, their use is more restricted (Johannessen 2006:99, Håberg 2010).[34] Two examples of preproprial articles are given in (24) (from Julien 2005:176 and Håberg 2010:5):

(24)   a. ***Ho Siri*** *e hær.*
       she Siri is here

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[33] Norwegian differs from Swedish and Danish, where the PDD *can* be combined with a definite determiner (Johannessen 2008b:173, 176).

[34] Preproprial articles are found in Modern Icelandic and in varieties of Modern Swedish as well (Sigurðsson 2006:224ff, Delsing 2003). In Icelandic, the preproprial articles mark "familiarity or givenness" (Sigurðsson 2006:220); in many Swedish varieties the preproprial article is used only with person names referring to someone the speaker knows personally (Delsing 2003).

‘Siri is here.’ (Northern Norwegian)

b. ***hann Marrtin Myr** på Tårrpo*
he   Martin Myr in Torpo

‘Martin Myr in Torpo.’ (Ål Norwegian)

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 (25).[35]

(25)　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.’

It follows from my discussion in section 5.2.2 that I do not assume PDDs or preproprial articles in Old Norwegian. Some additional discussion of this issue, and of the diachrony of PDDs and preproprial articles, is in order (see also Stausland Johnsen 2016); I will start with preproprial articles.

In my Old Norwegian corpus (*The Legendary Saga of St. Óláfr* and the sample from *The Old Norwegian Homily Book*), I have found 4 instances in which *hann* co-occurs with a proper name. Two of them are cited in example (26):

(26)　*Oc i þui kæmr **hann asbiorn** i stovona.* 　　*Snarazk **pro***
　　　and in that comes he Ásbjǫrn in dining.room.DEF turns [he]
　　　*þegar 　　at **hanum þore***
　　　immediately against him Þórir

　　　‘And in that moment, he, Ásbjǫrn enters the dining room. He turns against him, Þórir’ (ÓSHL, 220004, 220003)

What we see here may, in isolation, resemble the Modern Norwegian preproprial articles. However, some problems associated with that reading arise when we interpret the data in an Old Norwegian context and consider carefully what the notion of article entails. In the general literature on articles, the properties of default marking and obligatoriness are emphasized (see

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[35]The form of the preproprial article in (25a) is *a*; the same form is used for weak f. pronouns in the Solør dialect.

e.g. Greenberg 1978). A simple, but pertinent, definition, which I will adopt, is provided by Leijström (1934) (Leijström discusses the indefinite article, but his general point applies to other types of articles too):

> ...by article we mean a *systematic* use of certain function words to express a psychological category, which thereby also becomes a grammatical category... (Leijström 1934:181, my emphasis)[36]

In my Old Norwegian data set, the use of *hann* (or *hon*) followed by a proper noun does not appear to be systematic in this sense. As mentioned, I have found four instances in my corpus, but the great majority of proper names are used without any accompanying pronoun. This is illustrated in table 7, where I have included some of the most important proper names in *The legendary saga of St. Óláfr*.[37]

Table 7: Proper names with and without a preceding pronoun in *The legendary saga of St. Óláfr*.

Proper name	Preceded by pronoun	Not preceded by pronoun	Total
Óláfr	0	402	402
Haraldr	0	18	18
Rani	0	16	16
Þórir	1	25	26
Ásbiorn	1	13	14
Þormoðr	2	49	51
Ásta	0	9	9
Ingigerðr	0	12	12
Guðbrandr	0	25	25
Sigriðr	0	7	7
Sóti	0	11	11
Sigurðr	0	34	34

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[36]"... med artikel mena vi ju en *regelbunden* användning av vissa formord för att ge uttrykk åt en psykologisk kategori, som härigenom också blir en grammatisk..." (Leijström 1934:181, my emphasis)

[37]A note on how I did the count is in order: the column for proper names preceded by a pronoun includes cases where the lemmata *hann* and *hon* immediately precede a proper name and the proper name is tagged as APOS. Searches for *hann/hon* tagged as APOS/ATR yielded no relevant results; neither did searches for proper names tagged as ATR. Possessive constructions are excluded. The column for proper names without a preceding pronoun only includes cases in which the name is tagged as SUB, OBJ and OBL. Thus, contexts in which the Modern Scandinavian preproprial article would be excluded for independent reasons, e.g. vocatives and predicates, are left out. Some proper names (notably Óláfr) are used for more than one person in the saga; table 7 does not distinguish between different persons with the same name.

As the table shows, proper names mostly appear without a preceding pronoun. Now, a function word may in principle be in systematic use without being particularly frequent. As mentioned in footnote 34, Sigurðsson (2006:220) says that the Modern Icelandic preproprial article marks "familiarity or givenness," and this could perhaps fit the sequences of *hann* + proper name, but, on the other hand, it is a very general description that would also fit a high number of proper names that are *not* preceded by any pronoun in the same text.

Although *hann* sporadically co-occurs with proper names, it does not necessarily have to be a grammaticalized preproprial article (analyzed as a D head) at the Old Norwegian stage. Löbner's (1985) distinction between semantic and pragmatic definiteness might be relevant in this context.[38] Another approach is to analyze sequences of *hann/hon* + proper name in Old Norwegian as appositional structures; this is the analysis of Faarlund (2004:89–90).[39]

Dahl (2015:98) provides evidence of a more systematic use of *hann/hon* with proper names in a short text (a charter) from 1430. It thus seems likely that preproprial articles had arisen in some dialects around this time, but this is more recent than the Old Norwegian data that I have investigated.

The PDD is probably more recent than the preproprial article. 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 use of PDDs has increased; secondly, that the PDD was predominantly used by young speakers in 1970. In combination, these observations may suggest that the PDD is not much older than its most recent written attestations.

I propose that the rise of PDDs and preproprial articles is symptomatic of a reanalysis of the Norwegian pronominal 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, either in Old or Modern Norwegian. The crucial difference between the (partial) NAL Old Norwegian and the non-NAL Modern Norwegian thus lies in the internal structural of pronouns.[40]

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[38]Demske (2001), Coniglio & Schlachter (2014) and De Bastiani (2014) argue that this distinction is relevant for the development of (definite) articles in German.

[39]Cf. Stausland Johnsen (2016) for an alternative view.

[40]If my analysis of Old Norwegian is extended to other early Scandinavian languages (cf. section 6.3), the question arises as to whether these languages lost null arguments in the same way. The existence of preproprial articles in

6.2 Old Norwegian vs. English

Like Modern Norwegian, English is a non-NAL. However, as briefly mentioned in section 4, English has, according to Déchaine & Wiltschko (2002), 3rd person φP pronouns, which makes its pronominal 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. Evidence of scattering is provided by the option of fronting both topics and foci to the C-domain. Cf. the sentence in (27) (adapted from Radford 2004:330); to my knowledge, this type of word order is not attested in Old Norwegian:[41]

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

The topic feature that has triggered movement of *atrocities like those* in (27) 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; West Germanic 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 pronoun. It follows that pronoun deletion is not possible in English.

varieties of Swedish may suggest that a similar reanalysis has taken place. As mentioned in footnote 33, however, PDDs in Swedish (and Danish) are different from Norwegian PDDs in that they can co-occur with definite determiners. It thus looks like Swedish and Danish have developed PDDs with even more syntactic structure than Norwegian; in the framework of Julien (2005), these PDDs would be DemPs.

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

6.3 Old Norwegian vs. other early Germanic languages

As was mentioned in the introduction of this paper, null arguments in early Germanic have been the topic of much recent research, and it has been shown that at least Old High German, Old English, Old Swedish, Old Icelandic and Old Saxon have certain null argument properties in common (see Rosenkvist 2009 and Walkden 2014 with further references). Some of these properties are also shared by Old Norwegian; for example, in all of the languages mentioned above, null arguments are more frequent in the 3rd person than in the 1st and 2nd persons. This poses the question of whether my analysis could be extended to other early Germanic languages as an alternative to the previous syntactic analyses of Walkden (2014), who discusses all of the languages mentioned above, Axel (2007) (Old High German), Håkansson (2008, 2013) (Old Swedish) and van Gelderen (2013) (Old English).[42]

It would require research beyond the scope of this paper to establish whether the other early Germanic languages exhibit a distinction between DP and φP pronouns, as I have argued for Old Norwegian. However, if that distinction is found, the idea of an extension is not unthinkable.

A potential problem is posed by the fact that even though other early Germanic languages exhibit a preference for 3rd person null subjects, the pattern is not always as clear-cut as in Old Norwegian. This applies to Old High German in particular. In *Tatian*, 19.9% of 1st sg. and 30.3% of 1st pl. subjects are null; for the 2nd person, the figures are 39.1% and 13.8% respectively (Axel 2007:315). 1st and 2nd person null subjects are thus much more frequent than in Old Norwegian, a fact which must be accounted for. The data do not, however, necessarily exclude an analysis along the lines that I have suggested. There might possibly be

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[42]The person split in early Germanic is the opposite of the pattern found in a number of other partial NALs, e.g. Finnish and Hebrew, where 1st and 2nd person null arguments are more freely available than 3rd person null arguments (Walkden 2014, Holmberg 2010 and references there). I take the view that this pattern is not necessarily derived in the same manner in all of the relevant languages. In Hebrew, it could be argued that null subjects are licensed by T, but that T is only capable of doing this in the 1st and 2nd persons. The role of T is corroborated by the fact that null subjects are only possible in certain tenses (Vainikka & Levy 1999). Holmberg (2010) proposes (for e.g. Finnish) that the possibility of 1st and 2nd person null subjects is due to speech participant features, i.e. linking features, which are universally available in the C-domain. It is not clear, however, from this account how 1st and 2nd person null pronouns can be so clearly disfavored in a language like Old Norwegian, which should also have speech participant features. One could hypothesize that a language like Finnish has 1st and 2nd person pronouns that are structurally smaller than 3rd person pronouns, i.e. the opposite pattern of what we observed in Old Norwegian. Further research into the pronominal systems of the relevant languages would be required to test such an hypothesis.

an additional licensing mechanism for 1st and 2nd person null subjects, while 3rd person null subjects are deleted φPs as in my proposal. This licensing mechanism may perhaps be (the precursor) of Modern Germanic topic-drop, which, according to my analysis, is independent of Old Norwegian null arguments. A closer look at the data is required to settle this question; recall, however, from section 3.2 that topic-drop in Modern Germanic affects the 1st person in particular. In fact, Falk & Torp (1900:2), using a different terminology, propose that topic drop in Norwegian was borrowed from German. In section 3.2 I argued against postulating two separate types of null arguments in Old Norwegian, but the Old High German data are different, and more compatible with such a scenario.

As was mentioned in section 4.2, most early Germanic languages, apart from Old Icelandic, exhibit a clear asymmetry between main and subordinate clauses: null subjects tend to occur in main clauses; in subordinate clauses they are comparatively rare. In Old Norwegian, as we saw, there was a significant clause type asymmetry in one of the investigated texts, but not in the other; Old Norwegian thus shows some resemblance to Old Icelandic. The difference between the early Germanic languages with regard to null subjects and clause type is interesting. If null subjects are deleted in Agreement with C, as I have proposed for Old Norwegian, the difference could be related to differences in the featural make-up of the C-domain of main and embedded clauses.[43] The task of providing a full analysis of this must be left for future research; a reasonable starting point would be to investigate to which extent the languages that do not exhibit the clause type asymmetry also allow other typical main clause phenomena in embedded clauses.

7 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

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[43]See van Gelderen (2004:51ff) for discussion of the main vs. embedded C-domain in Old English; I leave it for future research to fully explore the implications of van Gelderen's findings for the analysis of null subjects.

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. Null arguments may be derived in different ways, and so may *blocking* of null arguments.

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