

## Null subjects in Old English

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### ABSTRACT

The possibility of referential null subjects in Old English has been the subject of conflicting assertions. Hulk and van Kemenade (1995:245) stated that “the phenomenon of referential *pro*-drop does not exist in Old English,” but van Gelderen (2000:137) claimed that “Old English has *pro*-drop.” This paper presents a systematic quantitative investigation of referential null subjects in Old English, drawing on the York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE; Taylor, Warner, Pintzuk, & Beths, 2003) and the York-Helsinki Parsed Corpus of Old English Poetry (YCOEP; Pintzuk & Plug, 2001). The results indicate substantial variation between texts. In those texts that systematically exhibit null subjects, these are much rarer in subordinate clauses, with first- and second-person null subjects also being rare. I argue that the theory of identification of null subjects by rich verbal agreement is not sufficient to explain the Old English phenomenon, and instead I develop an account based on Holmberg’s (2010) analysis of partial null subject languages.

The absence of subject pronouns cross-linguistically has been the subject of a great deal of empirical and theoretical work, especially within the principles and parameters approach to syntactic variation (see Holmberg & Roberts, 2010, for an overview). Despite this, however, the availability of null subjects in Old English has been little investigated compared to other properties such as clausal constituent order. Perhaps because of this state of affairs, conflicting claims have been made in the literature. Hulk and van Kemenade (1995:245) stated that “the phenomenon of referential *pro*-drop does not exist in Old English,” but van Gelderen (2000:137) claimed that “Old English has *pro*-drop.” Mitchell (1985:633) suggested that the possibility of leaving arguments unexpressed “occurs (or survives) only spasmodically” in Old English. Despite the seeming contradiction, we shall see that all three suggestions appear to be right. The availability of the York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE; Taylor, Warner, Pintzuk, & Beths, 2003) makes it possible to conduct a quantitative investigation of null subjects on a larger scale than has been carried out before. The results show that, in the majority of classical Old English texts,

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examples of null referential subjects are so rare as to be potentially considered entirely ungrammatical. However, as we will see, in certain other texts, the phenomenon occurs with a frequency and distribution that cannot be attributed entirely to performance errors.

In this paper, I focus entirely on referential null subjects. Nonreferential null subjects, such as null “expletives” with weather verbs, are robustly attested in Old English (see Fischer, van Kemenade, Koopman, & van der Wurff, 2000:39), but will be left out of consideration here.

The existence of examples of subject omission in Old English has been known for at least a century. Pogatscher (1901) gave an extensive list of examples, some of which were mentioned by Visser (1963–1973) and Mitchell (1985) in their general works on the history of English syntax. Although Pogatscher (1901) treated cases of coordination reduction, as found in Modern English examples such as (1), as examples of subject omission (van Gelderen, 2000:124), there are also genuine cases of null referential subjects, as in (2).

- (1) The king went to Normandy and met the bishop.  
 (2) Nu scylun hergan hefaenricas uard.  
 now must praise heavenly-kingdom.GEN guard  
 ‘Now we must praise the lord of the heavenly kingdom’  
 (*Caedmon’s Hymn*, Cambridge University Library MS. M, line 1; van Gelderen, 2000:126, her (16))

Example (2) is from the Northumbrian version of *Caedmon’s Hymn*, dated to the eighth century. Multiple manuscripts exist, and in some, such as Bodleian Library MS. T<sub>1</sub>, as in (3), the pronoun is present.

- (3) Nu we sculan herian hefonrices Weard.  
 now we must praise heavenly-kingdom.GEN guard  
 ‘Now we must praise the lord of the heavenly kingdom’  
 (Bodleian Library MS. T<sub>1</sub>, line 1; van Gelderen, 2000:126, her (17))

Tellingly, the scribe of Corpus Christi Oxford MS 279 (MS. O) initially copied *Nu sculan* ‘Now must’, but then corrected his copy to *Nu we sculan* ‘Now we must’ (cf. Kiernan, 1990:164, for discussion of the variation across manuscripts). This raises an important point, also mentioned by Pogatscher (1901:277): If, as seems to be the case, null subjects became progressively rarer through the history of English, scribes may have made “intelligent revisions” (Kiernan, 1990:164) of what they perceived to be errors, resulting in transmitted texts retaining a lower proportion of null subjects. Likewise, editors have frequently adopted a policy of silently inserting the missing overt pronouns in their editions of Old English texts (Pogatscher, 1901:275–276). Both these factors are relevant for our purposes, as quantitative investigations of null subjects in Old English may therefore lead to an underestimation of their actual prevalence, especially because the YCOE (Taylor et al., 2003) is based on critical editions rather than manuscript sources.

In this paper, I present such a quantitative investigation; methods are described in the following section. The results are divided into three subsections discussing differences between texts, between clause types, and between persons. A syntactic analysis is then developed, loosely based on the approach to partial null subject languages taken by Holmberg (2010). The final section summarizes and concludes.

## METHODS

I conducted a search of all texts in the YCOE (Taylor et al., 2003) and York-Helsinki Parsed Corpus of Old English Poetry (YCOEP; Pintzuk & Plug, 2001) that are longer than 15,000 words in order to investigate only texts large enough to make quantitatively reliable generalizations. The object of the search was to find and count (i) overt personal pronoun subjects and (ii) referential null subjects; these two categories together will be referred to as *pronominal* (as opposed to full determiner phrase [DP] subjects) in what follows. The search was carried out automatically using the program CorpusSearch 2 (Randall, 2005–2007).<sup>1</sup> In the interests of replicability, the queries used to perform the search can be found online.<sup>2</sup> Citations of Old English examples in the paper, where possible, are given from YCOE/YCOEP corpus token identifications. Because the corpora are also publicly available, this paper contributes more generally to the increasing number of replicable studies in historical syntax.

The YCOE tags referential null subjects (\*pro\*) distinctly from subjects elided under coordination (\*con\*) and null expletives (\*exp\*), using \*pro\* only when an analysis in terms of one of the other two is impossible. This makes the search for relevant examples relatively simple. However, a preliminary search for all instances of \*pro\* uncovered two classes of examples that should not be taken to support a prototypical referential null subject analysis. First, there are numerous cases where the verb is in the subjunctive and the context is that of an instruction, as in (4).<sup>3</sup>

- (4) gemenge wið buteran  
 mix.SUB with butter  
 ‘Mix with butter’  
 (colaece,Lch\_II\_[1]:3.8.2.406)

Although the sense is imperative, the verb form is clearly subjunctive; because (*ge*)*mengan* is a class Ib weak verb, the imperative singular would be (*ge*)*meng*. These jussive clauses have therefore been tagged in the YCOE as including a null referential pronoun (\*pro\*). For simplicity’s sake, the figures have been calculated on the basis of indicative clauses only, because this “jussive \*pro\*” is extremely frequent. In the YCOE *Benedictine Rule*, 29 of 30 examples of \*pro\* in main clauses are of this type, and in the *Heptateuch*, 48 of 52. They are also frequent in instructional texts such as the *Herbarium* and *Bald’s Leechbook*.

The second category of \*pro\* that occurs with unexpected frequency is the type illustrated in (5), involving the verb *hatan* ‘to be called’. Such examples could be

analyzed as involving a special type of asyndetic (subject-gap) contact relative clause rather than a true null referential subject; see Mitchell (1985:186), Dekeyser (1986:108), and Poppe (2006:197–201).<sup>4</sup>

- (5) Ualens was gelæred from anum Arrianiscan biscepe, Eudoxius was  
 Valens was taught from an Arian bishop Eudoxius was  
 haten  
 called  
 ‘Valens was taught by an Arian bishop called Euxodius.’  
 (coorosiu,Or\_6:33.151.22.3215)

In the preliminary search, *Orosius* appeared to contain a larger proportion of null subjects in main clauses than did other texts, at 6 percent (34 of 531 examples). However, 27 of these 34 examples involve the verb *hatan*, and 6 of the remaining 7 are cases of jussive \*pro\* of the type already discussed. Such examples are also common in the translation of Bede’s *Historia*. Therefore, these cases were excluded from the figures by means of a refinement of the search to rule out forms of the verb *hatan*.<sup>5</sup>

In distinguishing clause types, in addition to main and subordinate clauses, second and subsequent conjoined main clauses—those introduced by a coordinating conjunction—were treated as a separate category (*conjunct*); this is because it has often been observed (e.g., Andrew, 1940:1; Bech, 2001:86–93; Campbell, 1970:93; Mitchell, 1985:694) that these clauses exhibit different syntactic behavior from other main clauses. I will not have much to say about their behavior here, though data for them are presented for the sake of completeness.

## RESULTS

The results of the search are presented in Table 1.

A great deal of variation is visible in Table 1, between texts (some texts do not exhibit referential null subjects at all; others exhibit them at different frequencies) and between clause types (null subjects tend to occur more often in main clauses than in subordinate clauses).<sup>6</sup> The rest of this section goes into this variation in more detail.

On what I take to be the null hypothesis—that Old English behaved like Modern English in disallowing null subjects—it is not necessarily to be expected that the frequency of \*pro\* in the YCOE would be 0, as this category may also represent scribal errors. Any corpus of naturally occurring linguistic data is likely to contain violations of even the strongest generalizations at a rate of approximately 1 percent (Bies, 1996:5; Santorini, 1989).<sup>7</sup> Texts that include only very small numbers of instances of \*pro\* are not necessarily evidence for the grammaticality of referential null subjects in these varieties. However, there exist a number of texts in which the frequency of \*pro\* is higher, and these will be the focus of the following sections. The aim of the rest of the results section is to

TABLE 1. *Referential pronominal subjects in Old English finite indicative clauses in the YCOE and YCOEP, by text and clause type*

Text	Clause type	Null	Total
<i>Ælfric's Homilies Supplemental</i> (coaelhom.o3)	Main	1 (0%)	586
	Conjunct	3 (1%)	504
	Subordinate	2 (0%)	873
	Total	6	1963
<i>Ælfric's Lives of Saints</i> (coaelive.o3)	Main	6 (1%)	795
	Conjunct	20 (4%)	552
	Subordinate	7 (1%)	1144
	Total	33	2491
<i>Bede's History of the English Church</i> (cobede.o2)	Main	25 (3%)	744
	Conjunct	30 (7%)	407
	Subordinate	21 (2%)	1059
	Total	76	2210
<i>Benedictine Rule</i> (cobenrul.o3)	Main	1 (1%)	145
	Conjunct	0 (0%)	29
	Subordinate	3 (2%)	180
	Total	4	354
<i>Beowulf</i> (cobeowul; from YCOE Poetry)	Main	53 (22%)	243
	Conjunct	2 (8%)	26
	Subordinate	10 (7%)	149
	Total	65	418
<i>Blicking Homilies</i> (coblick.o23)	Main	2 (0%)	438
	Conjunct	4 (1%)	349
	Subordinate	5 (1%)	587
	Total	11	1374
<i>Boethius, Consolation of Philosophy</i> (coboeth.o2)	Main	5 (1%)	907
	Conjunct	4 (2%)	264
	Subordinate	4 (0%)	1099
	Total	13	2270
<i>Ælfric's Catholic Homilies I</i> (cocathom1.o3)	Main	1 (0%)	1272
	Conjunct	6 (1%)	654
	Subordinate	4 (0%)	1511
	Total	11	3437
<i>Ælfric's Catholic Homilies II</i> (cocathom2.o3)	Main	1 (0%)	1072
	Conjunct	7 (1%)	554
	Subordinate	4 (0%)	1195
	Total	12	2821
<i>Chrodegang of Metz</i> (cochdrul)	Main	2 (2%)	85
	Conjunct	1 (2%)	44
	Subordinate	0 (0%)	168
	Total	3	297
<i>Anglo-Saxon Chronicle C</i> (cochronC)	Main	3 (6%)	54
	Conjunct	23 (10%)	222
	Subordinate	0 (0%)	165
	Total	26	441

*Continued*

TABLE 1. *Continued*

Text	Clause type	Null	Total
<i>Anglo-Saxon Chronicle D</i> (cochronD)	Main	9 (12%)	75
	Conjunct	28 (12%)	241
	Subordinate	2 (1%)	199
	Total	39	515
<i>Anglo-Saxon Chronicle E</i> (cochronE.o34)	Main	6 (5%)	121
	Conjunct	17 (7%)	255
	Subordinate	3 (1%)	249
	Total	26	625
<i>Cura Pastoralis</i> (cocura.o2, cocuraC)	Main	3 (0%)	725
	Conjunct	2 (1%)	341
	Subordinate	5 (0%)	1509
	Total	10	2575
<i>Gregory's Dialogues C</i> (cogregdC.o24)	Main	2 (0%)	749
	Conjunct	2 (0%)	653
	Subordinate	4 (0%)	1413
	Total	8	2815
<i>Gregory's Dialogues H</i> (cogregdH.o23)	Main	0 (0%)	240
	Conjunct	1 (1%)	118
	Subordinate	0 (0%)	424
	Total	1	782
<i>Herbarium</i> (coherbar)	Main	0 (0%)	451
	Conjunct	0 (0%)	162
	Subordinate	0 (0%)	119
	Total	0	732
<i>Bald's Leechbook</i> (colaece.o2)	Main	28 (24%)	118
	Conjunct	12 (34%)	35
	Subordinate	6 (6%)	100
	Total	46	253
<i>Martyrology</i> (comart3.o23)	Main	1 (1%)	183
	Conjunct	4 (2%)	210
	Subordinate	3 (1%)	245
	Total	8	638
<i>Orosius</i> (coorosiu.o2)	Main	1 (0%)	345
	Conjunct	22 (7%)	321
	Subordinate	5 (1%)	712
	Total	28	1378
<i>Heptateuch</i> (cootest.o3)	Main	1 (0%)	749
	Conjunct	5 (1%)	455
	Subordinate	1 (0%)	805
	Total	7	2009
<i>St. Augustine's Soliloquies</i> (cosolilo)	Main	0 (0%)	393
	Conjunct	0 (0%)	64
	Subordinate	0 (0%)	411
	Total	0	868

*Continued*

TABLE 1. *Continued*

Text	Clause type	Null	Total
<i>Vercelli Homilies</i> (coverhom)	Main	5 (1%)	469
	Conjunct	7 (2%)	400
	Subordinate	4 (1%)	613
	Total	16	1482
<i>West-Saxon Gospels</i> (cowsgosp.o3)	Main	4 (0%)	1415
	Conjunct	5 (1%)	825
	Subordinate	3 (0%)	1142
	Total	12	3382
<i>The Homilies of Wulfstan</i> (cowulf.o34)	Main	0 (0%)	128
	Conjunct	0 (0%)	181
	Subordinate	0 (0%)	351
	Total	0	660

demonstrate that null subjects could indeed occur with some frequency in certain contexts, unlike in present-day English.<sup>8</sup>

*Differences between texts*

Some examples of referential null subjects are given in (6) and (7).

- (6) þa lædde mon forð sumne blinde mon.  
 then led man.NOM forth some.ACC blind.ACC man.ACC  
 Wæs Ø ærest læded to Bretta biscopum  
 was first led to Britons.GEN bishops.DAT  
 ‘Then someone led forth a blind man. **He** was first led to the priests of the Britons’  
 (cobede,Bede\_2:2.100.2.925–cobede,Bede\_2:2.100.3.926)
- (7) þonne se weard swefeð, sawele hyrde; bið se  
 then the.NOM warder.NOM sleeps soul.GEN keeper is the.NOM  
 slæp to fæst, bisgum gebunden, bona swiðe neah,  
 sleep.NOM too fast troubles.DAT bound killer.NOM very near  
 se þe of flanbogan fyrenum scéoteð.  
 who that of shaft-bow crime.DAT shoots  
 þonne bið Ø on hrepre under helm drepen biteran stræle  
 then is in heart.DAT under helm.ACC hit bitter.DAT dart.DAT  
 ‘Then the warder sleeps, the soul’s keeper. The sleep is too sound, tied to troubles;  
 the killer who shoots sinfully with his bow is too near.  
 Then **he** is hit in the heart, under the helmet, by the bitter dart’  
 (cobeowul,53.1741.1440–cobeowul,54.1745.1443)

In (6), the understood subject is a blind man, who was introduced as the direct object of the previous clause. In (7) it is an unspecified king, the “warder” mentioned several clauses earlier. For more examples of Old English null

subjects, particularly from *Beowulf*, see van Gelderen (2000:126–129) and Visser (1963–1973:4ff).

Many of the texts investigated, including Ælfric’s *Catholic Homilies* and *Homilies Supplemental*, as well as the *Benedictine Rule*, *Blickling Homilies*, *Chrodegang of Metz*, the translation of Boethius’s *Consolation of Philosophy*, the *Cura Pastoralis*, both manuscripts of *Gregory’s Dialogues*, the *Martyrology*, the *Heptateuch*, St. Augustine’s *Soliloquies*, the *West-Saxon Gospels*, and Wulfstan’s *Homilies*, show a frequency of overt subjects of 98 to 100 percent in all clause types. This arguably lends weight to Hulk and van Kemenade’s (1995) claim, because one approach to such low figures is to consider these examples ungrammatical; at any rate, it is easy to see why such a claim would have been made.

In Ælfric’s *Lives of Saints* and *Orosius*, null subjects are found at a substantial frequency only in conjunct clauses. Why this should be the case is unclear, especially for Ælfric, in whose other writings null subjects in general are extremely rare. Perhaps the systems underlying these texts are characterized by a rule of conjunction reduction in which arguments can be shared across conjuncts “regardless of case or grammatical function,” as suggested by Faarlund (1990:104) for Old Norse. A relevant example from *Lives of Saints* is given in (8), where the dative experiencer in the main clause is the understood subject of the conjunct clause.<sup>9</sup>

- (8) Þa      gelicode      þam      gedwolenum      þæs      bisceopes      dom  
 then   liked      the.DAT      heathens.DAT      the      bishop’s      ruling  
 and      wacodon      þa      þreo      niht  
 and      watched      there      three      nights  
 ‘Then the heathens liked the bishop’s ruling, and watched there three nights’  
 (coelive, + ALS\_[Basil]:338.675–676)

I will leave these two texts out of consideration in what follows.

The remaining texts are Bede’s *History of the English Church*, *Beowulf*, *Bald’s Leechbook*, and the C, D, and E manuscripts of the *Anglo-Saxon Chronicle*. All of these texts exhibit null subjects to a greater extent.

Was Old English a null subject language, then? The answer appears to be that there is variation. The texts I have investigated that display null subjects robustly have in common with those investigated by Berndt (1956) that they are Anglian (Northumbrian or Mercian) or exhibit Anglian features. Berndt (1956:59–60) demonstrated this for the Northumbrian *Lindisfarne Gospels* and the *Rushworth Glosses*, in the process noting that they display a much higher rate of null subjects than do the West Saxon Corpus MS of the gospels (ibid.:78–82). Fulk (2009:96) noted that the Old English *Bede* and *Bald’s Leechbook* and the D and E manuscripts of the *Anglo-Saxon Chronicle*, though traditionally assigned to West Saxon, display Anglian features.<sup>10</sup> Though it is agreed that *Bald’s Leechbook* in its transmitted form was composed in Winchester (Meaney, 1984:36), Wenisch (1979:54) argued on a lexical basis that an Anglian



(probably Mercian) original must have existed. As for *Beowulf*, Fulk (1992:309–325) noted a number of Anglian lexical and morphological features. If null subjects can be considered an Anglian feature on the basis of their distribution across texts, it seems fair to suggest, tentatively, that both van Gelderen (2000) and Hulk and van Kemenade (1995) are correct. Referential null subjects were not grammatical in classical Old English (West Saxon), as exemplified, for example, by the works of Ælfric, but they were available, subject to certain restrictions, in Anglian dialects. The key to resolving the apparent contradiction lies in dispelling the illusion of Old English as a monolithic entity. Though it is often treated as such for the purposes of syntactic generalizations—for instance by Fischer et al. (2000:37)—the texts provide evidence for diatopic and diachronic variation even within syntax; see, for example, Ingham (2006) for a demonstration of dialectal variation in negative concord configurations and Suárez-Gómez (2009) on variation in relative clauses.<sup>11</sup>

This result can be underscored by collapsing the figures in Table 1 according to whether the text is listed in the YCOE as purely West Saxon (the works of Ælfric, the *Benedictine Rule*, the translation of Boethius's *Consolation of Philosophy*, the *Cura Pastoralis*, the H manuscript of *Gregory's Dialogues*, the *Heptateuch*, St. Augustine's *Soliloquies*, the *West-Saxon Gospels*, and Wulfstan's *Homilies*). Table 2 presents the results: the two dialect groups are clearly distinct ( $\chi^2$  with Yates's correction, 301.018, 1 df;  $p < .0001$ ).

Assuming that earlier stages of Northwest Germanic did allow referential null arguments (Axel, 2005, 2007, on Old High German; Håkansson, 2008, on Old Swedish; Sigurðsson, 1993, on Old Icelandic; and Rosenkvist, 2009, and Walkden, 2012, for a broad overview of null subjects in Germanic languages), this property must have been lost in West Saxon during and before the time that our very earliest texts were being produced. I do not here address the issue of how or why this property was lost; though see Walkden (2012) for some suggestions.

### *Differences between clause types*

In all of the texts that robustly exhibit referential null subjects, including *Beowulf*, null variants are more common in main clauses than in subordinate clauses. The effect of clause type in *Beowulf* (main vs. subordinate), for instance, is clearly significant ( $p < .0001$ ).<sup>12</sup> This result is similar to that found by Håkansson (2008) for Old Swedish, and by Eggenberger (1961) and Axel (2007) for Old High German. Examples (9) and (10) are of null subjects in subordinate clauses.

- (9) Forðon in þas tid seo halige cirice sumu  
 because in these times the.NOM holy.NOM church.NOM some.ACC  
 þing þurh welm receð, sumu þurh monþwærnesse  
 things.ACC through zeal chastises some.ACC through meekness  
 aræfneð, sumu þurh sceawunge ældeð, & swa abireð &  
 tolerates some.ACC through discretion connives and so endures and

ælded, þætte Ø oft þæt wiðerworde yfel abeorende & ældend  
 connives that often that noxious evil enduring and concealing

bewered  
 prevents

‘Because in these times the Holy Church chastises some things through zeal, tolerates some through meekness, connives some through discretion, and endures and connives, so that **she (the Church)** often suppresses that noxious evil through endurance and connivance’

(cobede,Bede\_1:16.70.33.663–cobede,Bede\_1:16.70.33.666)

- (10) godfremmdra swylcum gifeþe bið þæt þone hilderæs hæł  
 good-doers.GEN such.DAT given is that the.ACC battle-charge.ACC hale

gedigeð  
 endure

‘To such performers of noble deeds it will be granted that **they** survive the assault unharmed’

(cobeowul,11.293.236)

Null subjects in Old English were sensitive to clausal status as in Old High German and Old Swedish, though not in any absolute way, a fact already recognized by Pogatscher (1901:261). In the analysis section, the theoretical implications of this are discussed.

### *Differences between persons*

In all of the texts that robustly exhibit referential null subjects, person has a statistically significant effect on the expression versus nonexpression of subjects. Table 2 presents data taken from a study by Berndt (1956). This table bears some resemblance to van Gelderen’s (2000:133) Table 3.1. Though in his own tables, Berndt (1956:65–68, 75n1) distinguished between subjects elided under coordination and other null referential subjects, van Gelderen (2000) conflated the two categories in the figures for null subjects in her Table 3.1. In Table 3, I have excluded Berndt’s (1956) cases of subjects elided under coordination in order to ensure comparability with Tables 1 and 4.

Berndt (1956) investigated two texts, the *Lindisfarne Gospels* (Northumbrian) and the *Rushworth Glosses* (of which the first part is Mercian and the second Northumbrian). The effect of third versus nonthird person in both parts of each

TABLE 2. *Referential pronominal subjects in finite indicative clauses in West Saxon and non-West Saxon*

Dialect	Null	Total
West Saxon	137	24,990
Non-West Saxon	324	11,800
Total	461	36,790

TABLE 3. *Referential pronominal subjects in finite indicative clauses in the Lindisfarne Gospels and Rushworth Glosses, by person and number*

Text	Person	Num	Null	Total
<i>Rushworth Glosses, part 1</i>	1	sg	6 (3%)	197
		pl	1 (2%)	45
	2	sg	12 (12%)	102
		pl	20 (11%)	188
	3	sg	177 (42%)	423
		pl	102 (42%)	243
	Total		318	1198
<i>Lindisfarne Gospels, part 1</i>	1	sg	8 (4%)	220
		pl	0 (0%)	53
	2	sg	15 (13%)	118
		pl	9 (4%)	215
	3	sg	325 (74%)	441
		pl	185 (63%)	293
	Total		542	1340
<i>Lindisfarne Gospels, part 2</i>	1	sg	9 (1%)	665
		pl	1 (1%)	121
	2	sg	22 (7%)	330
		pl	19 (4%)	447
	3	sg	1003 (82%)	1228
		pl	475 (76%)	629
	Total		1529	3420
<i>Rushworth Glosses, part 2</i>	1	sg	19 (3%)	547
		pl	2 (2%)	102
	2	sg	22 (9%)	248
		pl	59 (16%)	361
	3	sg	795 (81%)	981
		pl	420 (77%)	544
	Total		1317	2783

Source: Based on Berndt (1956:65–68).

text (cf. also van Gelderen, 2000:132n6) proves to be significant at the  $p < .0001$  level. Within the third person, number also has an effect, with overt subjects being preferred for plurals, although the effect is only statistically significant in the *Lindisfarne Gospels* (part 1:  $p = .0025$ , part 2:  $p = .0023$ ), not in the *Rushworth Glosses* (part 1:  $p = 1$ , part 2:  $p = .0841$ ). Number has no effect in the first person (*Lindisfarne* part 1:  $p = .3612$ , part 2:  $p = .6570$ ; *Rushworth* part 1:  $p = 1$ , part 2:  $p = .5558$ ) and no consistent effect in the second person (*Lindisfarne* part 1:  $p = .0067$ , part 2:  $p = .1464$ ; *Rushworth* part 1:  $p = .8449$ , part 2:  $p = .0076$ ). Similar facts hold for four of the texts exhibiting null subjects that I investigated, as shown in Table 4, though the proportions of null subjects in general in these texts is much lower.

In *Beowulf*, *Bald's Leechbook*, and *Bede*, the effect of third versus nonthird person is statistically significant ( $p < .0001$  for the first two;  $p = .0004$  for *Bede*).<sup>13</sup> In the *Chronicle MS. E*, though there are no first- or second-person null subjects, there is

TABLE 4. *Referential pronominal subjects in finite indicative clauses in Beowulf, Bald's Leechbook, Bede, and MS. E of the Chronicle, by person and number*

Text	Person	Num	Null	Total
<i>Beowulf</i>	1	sg	2 (3%)	77
		pl	0 (0%)	21
	2	sg	1 (4%)	27
		pl	0 (0%)	10
	3	sg	42 (20%)	214
		pl	20 (29%)	69
	Total		65	418
<i>Bald's Leechbook</i>	1	sg	0 (0%)	1
		pl	0 (0%)	11
	2	sg	0 (0%)	52
		pl	0	0
	3	sg	32 (23%)	140
		pl	14 (29%)	49
	Total		46	253
<i>Bede</i>	1	sg	0	129
		pl	2 (1%)	173
	2	sg	0	69
		pl	1 (4%)	26
	3	sg	44 (3%)	1548
		pl	29 (11%)	265
	Total		76	2210
<i>Chronicle MS. E</i>	1	sg	0 (0%)	3
		pl	0 (0%)	18
	2	sg	0 (0%)	3
		pl	0 (0%)	3
	3	sg	9 (3%)	306
		pl	17 (6%)	292
	Total		26	625

no statistically significant effect of number ( $p = .6206$ ), perhaps because of the low frequency of first and second person overall. The effect of number in the third person is only statistically significant for *Bede* ( $p < .0001$ ) and not for the other three texts (*Beowulf*:  $p = .1311$ ; *Bald's Leechbook*:  $p = .4427$ ; *Chronicle MS. E*:  $p = .1080$ ); the number of tokens of first and second person is too small to yield meaningful results as to the effect of number, and there is no obvious trend.

Among other things, van Gelderen (2000) took this systematicity to show that the null argument property of at least some Old English texts cannot be attributed solely to Latin influence. In Latin, overt pronouns are almost never present, so if the absence of pronouns in Old English resulted entirely from isolated instances of overliteral translation, we would expect a random distribution of null subjects across persons and numbers, which is not the case (van Gelderen, 2000:133). Instead we find null subjects only very rarely in the first and second person, and only very rarely in subordinate clauses. I concur; furthermore, such a hypothesis would be problematic when dealing with

autochthonous texts such as *Beowulf* that display many null arguments despite being universally acknowledged as having no Latin original and displaying little Latin influence.

Likewise, the null argument property of Old English cannot be attributed solely to metrical considerations in texts such as *Beowulf*, because this would not account for the greater frequency of null subjects in the third person than in the first and second. All three types of personal pronoun are unstressed monosyllables in Old English. Furthermore, such a hypothesis would be problematic when dealing with prose texts such as *Bald's Leechbook*, for which no metrical explanation is available. If translation from Latin and/or metrical considerations played a role in favoring null subjects at all in Old English texts, then, it could only have led to a slight general quantitative preference, as neither of these factors is able to account for the person and clause-type asymmetries in Old English or the range of texts in which null subjects are found.

### *Summary of results*

Although many texts appear to reflect grammars that do not permit referential null subjects as a grammatical option, some Old English texts, including *Beowulf*, *Bald's Leechbook*, the *Lindisfarne Gospels*, and the *Rushworth Glosses*, exhibit a nontrivial proportion of null subjects with a distribution that is unlikely to be due solely to Latin or metrical influence. I suggested that the null subject property was a feature of Anglian dialects of Old English. In those texts that robustly exhibit referential null subjects, such subjects are heavily dispreferred, though not impossible, in subordinate clauses, with overt pronominals being favored. Furthermore, third-person pronominal subjects are much more likely to be null than first- or second-person pronominal subjects.

For completeness, it should be mentioned that referential null objects can also be found in Old English; Ohlander (1943), van der Wurff (1997), and van Gelderen (2000) provided a number of examples, including (11) and (12).

(11) se here . . . gesæt þæt lond and gedælde  
 the army invaded the land and divided  
 'The army . . . invaded the country and divided it up'  
 (cochronC,ChronC\_[Rositzke]:881.1.762)

(12) hie . . . leton holm beran / geafon on garseg  
 they let sea bear gave on ocean  
 'They let the sea bear him, gave him to the ocean'  
 (cobeowul,4.47.41–42)

I have not attempted a quantitative investigation of null objects here, due to the difficulty of deciding what constitutes a true referential null object as opposed to a verb that is optionally intransitive (e.g., Modern English *I have eaten*).

## ANALYSIS

The traditional account of the null subject parameter, following Taraldsen (1978), associated the possibility of null subject properties with rich verbal subject agreement, an intuition with a much longer pedigree in Indo-European philology. Though the intuition has proven difficult to formalize, it seems too valuable to reject entirely. Van Gelderen (2000:125) explicitly adopted “a Taraldsen/Platzack [account]” of *pro*-licensing for Old English, in which third-person verbal features are more specified than first- and second-person verbal features are. However, it can be seen that such an analysis cannot account for the Old English facts. A sample weak verb paradigm of Old English is given in Table 5.

As can be seen, no person distinctions at all are made in the plural of either tense; the same holds in all dialects of Old English, including the strong verb paradigms. This situation cannot be reconciled with any of the proposals as to what constitutes rich agreement. For instance, according to Müller (2005), the relevant property disallowing agreement-conditioned null subjects is the occurrence of system-wide syncretisms. Such syncretisms are clearly present in the plural. Furthermore, the differences between texts (and, by hypothesis, between dialects) are mysterious under an agreement-driven account, as are the differences between clause types.

It therefore seems unlikely that the proposal of van Gelderen (2000:125), based on the Taraldsen (1978) intuition, is correct. A further problem is presented by referential null objects such as those in (11) and (12). There is no object agreement on the verb in Old English, so an agreement-driven account would predict that these should be impossible. In classic agreement-conditioned null subject languages such as Italian, null objects are permitted only with arbitrary interpretation and may not be referential (Rizzi, 1986).

It also seems unlikely that Old English can be likened to the other major subclass of null subject languages, the radical null argument languages such as Japanese, Hindi/Urdu, and Imbabura Quechua. In these languages, arguments (including objects) can be dropped relatively freely without being constrained by verbal morphology, subject only to certain discourse conditions (e.g., see Huang, 1984). Such an account for Old English would explain the occurrence of referential null objects. However, a recent and influential proposal by Neeleman

TABLE 5. *Verb paradigm for the simple present and past tenses in Old English: nerian ('to save')*

Num	Person	Present ind.	Past ind.	Present subj.	Past subj.
sg	1	ner-ie	ner-ed-e	ner-ie	ner-ed-e
	2	ner-est	ner-ed-est		
	3	ner-eþ	ner-ed-eþ		
pl		ner-iaþ	ner-ed-on	ner-ien	ner-ed-en

Source: Mitchell and Robinson (2007:46).

TABLE 6. *Old English pronouns*

Person, num., and gender	Nominative	Accusative	Dative	Genitive
1 sg	ic	mē, meç	mē	mīn
2 sg	þū	þē, þeç	þē	þīn
3 sg m	hē	hine	him	his
3 sg n	hit	hit	him	his
3 sg f	hēo, hīo	hīe, hī	hire	hire
1 du	wit	unc	unc	uncer
2 du	gīt	inc	inc	incer
1 pl	wē	ūs, ūsic	ūs	ūre
2 pl	gē	ēow, ēowic	ēow	ēower
3 pl m	hīe, hī	hīe, hī	him, heom	hira, hiera, heora, hiora
3 pl n	hīe, hī	hīe, hī	him, heom	hira, hiera, heora, hiora
3 pl f	hīe, hī	hīe, hī	him, heom	hira, hiera, heora, hiora

Source: Mitchell and Robinson (2007:18–19).

and Szendrői (2007, 2008) suggested that languages require agglutinating morphology on pronouns if they are to have radical null arguments; Japanese, for instance, has agglutinative case morphology (Neeleman & Szendrői, 2007:679). The Old English personal pronoun system is given in Table 6.

Numerous portmanteau fusional forms can be observed, especially in the nominative case, and none of these fusional patterns stretches across the full paradigm in any of these languages. That is, there is no feature value or combination of feature values such that they define a nonsingleton set of forms in which all members share phonetic material (cf. Neeleman & Szendrői, 2007:706). Assuming Neeleman and Szendrői's (2007) proposal was along the right lines as a characterization of radical null argument languages, then, Old English does not qualify.

In addition, example (7) and others like it preclude a “pronoun zap” or “topic drop” analysis of Old English null arguments as often assumed for modern Northwest Germanic languages (e.g., Huang, 1984:546–549; Ross, 1982). This is because *þonne* ‘then’ is in initial preverbal position, and topic drop is not possible in the modern languages precisely when an overt element precedes the verb. A further argument against a pure topic drop analysis is that, in modern Germanic, topic drop is unavailable in subordinate clauses, whereas in Old English, null subjects are available in this context (though dispreferred).

The null subject variety of Old English does not seem to fit very well into any of the traditional categories of null argument language, then. However, it is not alone in this. Finnish and Hebrew both allow referential null arguments under certain conditions (Borer, 1989; Holmberg, 2005, 2010; Vainikka & Levy, 1999). It has been argued that these languages, as well as others such as Icelandic, Russian, Marathi, and Brazilian Portuguese, should be classed as a separate type of null argument language, the “partial” null argument languages (Holmberg & Roberts, 2010:10–11). In formal and written Finnish, for example, first- and second-

person pronouns can always be left unexpressed in finite contexts, and third-person pronouns can be left unexpressed when “bound by a higher argument, under conditions that are rather poorly understood” (Holmberg, 2005:539). Referential objects may also be unexpressed in similar contexts. Hebrew has a similar pattern in the past and future tenses, which have person marking; in the present tense, which does not, subject pronouns are obligatory (Vainikka & Levy, 1999:615). The analytic tools developed for these languages will be useful in analyzing Old English. In particular, I here follow an approach based on Holmberg (2010), arguing that Old English was in a sense the mirror image of languages such as modern formal Finnish.<sup>14</sup>

In Holmberg’s (2010) analysis, referential null subjects in partial null subject languages are DPs that bear a full set of  $\varphi$ -features but whose D-feature is uninterpretable ([uD]).  $T^0$ , which bears [u $\varphi$ ]-features associated with an EPP, or extended projection principle, feature, agrees with the subject and attracts it to be second-merged in SpecTP, or specifier of TP, thereby valuing  $T^0$ ’s [u $\varphi$ ]-features as well as the [uCase] feature of the subject DP. In consistent null subject languages,  $T^0$  has a [uD] feature that can be valued by agreement with a null aboutness topic in the C-domain (“what the sentence is about”; Reinhart, 1981). Because  $T^0$  bears a [uD] feature, the subject itself is not required to bear one, and thus a pronoun smaller than a DP—a  $\varphi$ P in Holmberg’s (2010) proposal—can serve as the subject. When the uninterpretable  $\varphi$ -features of  $T^0$  probe, and subject-verb agreement is established, this  $\varphi$ P subject incorporates into the verb rather than moving to SpecTP.<sup>15</sup>

In partial null subject languages, this strategy is not available: because  $T^0$  does not bear a [uD] feature, the subject must bear one instead, and hence must be a DP.<sup>16</sup> Finnish then has two ways of valuing the [uD] feature on the subject DP. In the case of first- and second-person null subjects, it is valued by agreement with elements in the speaker or addressee projections in the left periphery (local logophoric agent or patient,  $\Lambda_A$  or  $\Lambda_P$ , in the sense of Sigurðsson, 2004:227). In the case of third-person referential null subjects, it is valued through a structurally defined control relation with a DP antecedent (Holmberg, 2010:101–104). The nullness of the pronoun is then due to an extended version of chain reduction.

One immediate question arising from this system is why a null aboutness topic cannot control a null subject in SpecTP directly. Holmberg (2010:103n11) speculates on this point, but it is clear that it cannot straightforwardly be the case for Finnish main clauses, as null referential third-person subjects are not allowed in this context (e.g., Vainikka & Levy, 1999:614). An analysis involving a null aboutness topic would make the prediction that this topic could be present in main clauses in Finnish as it is in consistent null subject languages such as Italian and could thus value the [uD] feature of the null subject pronoun.

A related question is how the agreement relation between left-peripheral speech features, or aboutness topics in the case of consistent null subject languages, and  $T^0$  or the subject pronoun in SpecTP comes to hold. The purpose of this agreement relation in Holmberg’s (2010) system is to value the [uD] feature of  $T^0$  or the subject pronoun. To achieve this, the left-peripheral category must bear a valued D-



TABLE 7. *Typology of null argument context-linking*

	Locus of probing feature		Examples
	$\Lambda_{AP}$ , $\Lambda_{pP}$	Null aboutness topic	
(a)	Yes	Yes	Greek, Italian, Japanese
(b)	Yes	No	Finnish, Hebrew, Marathi
(c)	No	No	English, French, Bambara (Koopman, 1992)
(d)	No	Yes	?

feature. In Chomsky’s (2000, 2001) agreement system, however, it is the higher category that probes, and it can only do so if it bears an uninterpretable feature itself.

Both problems can be solved at once if it is hypothesized that the ability of these left-peripheral categories to probe is itself parameterized. Specifically, in a given language,  $\Lambda_{AP}$  and  $\Lambda_{pP}$  operators and null aboutness topics in ShiftP (the left-peripheral phrase containing the aboutness topic; see Frascarelli & Hinterhölzl, 2007) may each independently bear a probing feature alongside their valued D-features, and it is this that gives them the ability to probe and thus enter into an agreement relation with SpecTP or T<sup>0</sup>, valuing the latter’s [uD] feature as a by-product of this. Assuming for the moment that the logophoric operators  $\Lambda_A$  and  $\Lambda_P$  pattern together in whether they bear probing features, this gives us a four-way typology, as illustrated in Table 7, that crosscuts previous typologies of null argument languages. Table 7 does not present an implicational hierarchy: merely a presentation of the logical (and attested) possibilities.

I would like to propose that option (d) in Table 7 is the one instantiated by Old English. As observed by Berndt (1956) and van Gelderen (2000) as well as earlier in this paper, first- and second-person null arguments are comparatively rare. As Sigurðsson (1993:254) pointed out for Old Icelandic, this is expected if null arguments are required to have discourse topicality. Although it is not impossible for first- and second-person arguments to be aboutness topics, this type of topicality is not easily established in direct speech, in which most of the attested cases of first- and second-person null arguments are found. I therefore assume that  $\Lambda_A$  and  $\Lambda_P$  operators lacked the ability to probe in Old English, and that the [uD] feature of a null argument could therefore only be valued by agreement with a null aboutness topic. The relevant derivational configuration for agreement is as illustrated in Figure 1, abstracting away from irrelevant movements and layers of structure; the dotted line indicates agreement.<sup>17</sup> (On the licensing of verb movement to the C position, see Walkden, 2012:87–101.)

As was additionally established earlier, Old English furthermore shows an asymmetry between main and subordinate clauses with regard to the frequency of null arguments. Null arguments are substantially rarer in subordinate clauses, once again displaying the mirror image of the behavior of Finnish. This can be captured if subordinate finite clauses in Old English are islands with respect to agreement and do not always project their own ShiftP. If ShiftP is present in a

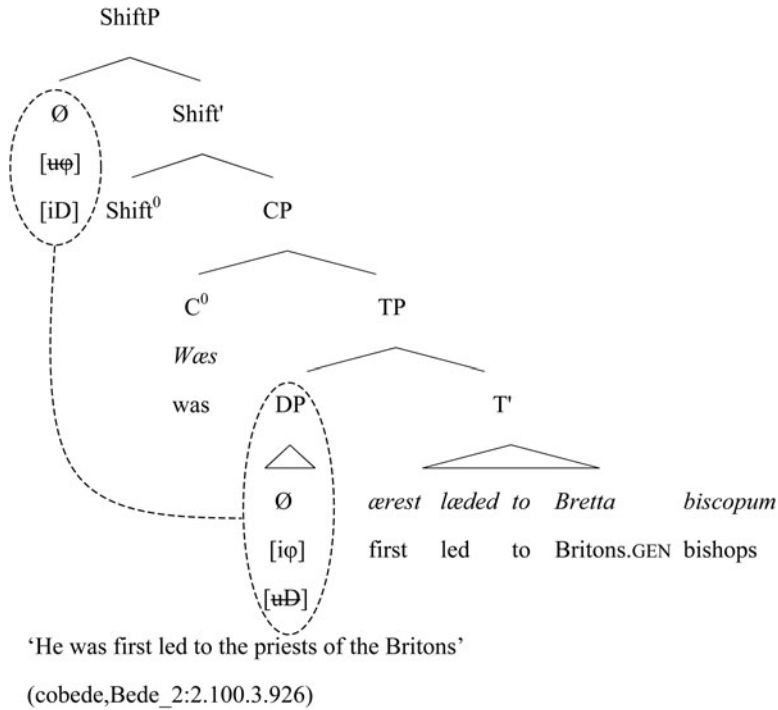


FIGURE 1. Licensing of null subjects in Old English.

subordinate clause, a null aboutness topic probes for and may identify a null argument. If it is not present, null arguments may not be identified, because a null aboutness topic in a higher finite clause may not probe into the lower clause.<sup>18</sup>

I thus propose that null subjects in Old English belong to the set of main clause phenomena (Green, 1976; Haegeman & Ürögdi, 2010; Hooper & Thompson, 1973). As such, they should be available in subordinate clauses only under certain conditions. The formalization of these conditions has remained elusive. The key properties have been argued to be assertion (Hooper & Thompson, 1973; Wiklund, 2010), the speaker's commitment to the truth of the clause (Green, 1976), and most recently clausal (non)referentiality (Haegeman & Ürögdi, 2010). All accounts of main clause phenomena, however, predict that they should be available only in "rootlike" contexts, and unavailable in other specific contexts, such as the complements of nonbridge verbs and "central" (Haegeman, 2004) adverbial clauses. These are precisely the contexts for which Bianchi and Frascarelli (2010) argued that aboutness topics are unavailable. The prediction seems to be largely correct as far as Old English null subjects are concerned: overt forms are required in the complements of nonbridge verbs, as in (13), and in central conditional clauses, as in (14).<sup>19</sup>

- (13) wite þu þonne þæt þu hie ne meht gehælan  
 know.SBJV you then that you it NEG may heal.INF  
 ‘Then you know that **you** cannot heal it’  
 (colaece,Lch\_II\_[1]:1.15.5.104)
- (14) gif hio of cealdum intingan cymð  
 if she of cold.DAT cause.DAT comes  
 þonne sceal mon mid hatum læcedomum lacnian  
 then shall one with hot.DAT leechdom.DAT heal.INF  
 ‘If **it** comes of cold causes, one should treat it with hot leechdoms’  
 (colaece,Lch\_II\_[1]:1.13.4.85)

A final important feature of partial null subject languages, according to Holmberg (2005:540), is that they permit generic null subjects. This is so because  $\varphi$ P pronouns, lacking [uD], may not incorporate into  $T^0$  in these languages and receive a referential interpretation as  $T^0$  also lacks [uD]; hence, if they are incorporated into  $T^0$ , they may only be interpreted as generic null subjects. Generic null subjects are certainly possible in Old English, as illustrated by (15), though the use of *man/mon* in this role is more common (see also Rusten, 2010:83–84). As a reviewer notes, instances of jussive \*pro\*, such as (4), could be analyzed as involving a generic null subject.

- (15) Wip þæs magan springe þonne þurh muð bitere hræcð  
 for the maw.GEN sore.DAT when through mouth bitterly retches  
 oþþe bealcet  
 or belches  
 ‘For sores of the mouth when (the patient) retches or belches bitterly through the mouth’  
 (colaece,Lch\_II\_[2]:15.1.1.2296)

It thus seems that there is a plausible case to be made for Old English as a partial null argument language.

#### SUMMARY AND CONCLUSION

The aim of this paper was to investigate the possibility of referential null subjects in Old English. Drawing on a search of the larger texts in the YCOE and YCOEP, as well as an earlier investigation of two northern texts by Berndt (1956), it was established that some texts reflected a null-subject-permitting grammar to a certain extent, but others did not. It was tentatively proposed that the null subject property might have been a feature of Anglian, but not of West Saxon.<sup>20</sup>

In those texts that robustly exhibit referential null subjects, clear patterns were observed. First, null subjects were proportionally rarer in subordinate clauses than in main clauses. Second, null subjects were proportionally rarer in the first and second persons than in the third. Examples of referential null objects can also be found.

It was argued that the null argument facts of Old English are not compatible with an account based on rich verbal agreement, or with a “radical null argument” account. Instead, it was proposed that Old English was a partial null argument language in the sense of Holmberg (2010), and an analysis was given in these terms. If the account in this paper is along the right lines, it provides a small contribution to ongoing comparative work on null arguments in early Germanic (Rosenkvist, 2009; Walkden, 2012) and to our understanding of the typology of null argument languages, in addition to shedding some light on the syntax of Old English itself.

## NOTES

1. CorpusSearch 2 is available at: <http://corpussearch.sourceforge.net>.
2. In the interests of replicability, the queries used to perform the search can be found online at <http://journals.cambridge.org/lvc>.
3. Example (4) is also an instance of “recipe drop” of objects (Bender, 1999; Culy, 1996), showing that this possibility was alive and well in the Old English period.
4. This construction is available in older stages of German as well (Gärtner, 1981; Poppe, 2006:200). Dekeyser (1986:112–113) in fact argued that it is an “offshoot” of earlier, presumably Proto-Germanic, optionality in the expression of the subject pronoun.
5. As a reviewer observes, these examples, in principle, could equally well represent genuine cases of referential null subjects if taken as main clauses (see Endriss & Gärtner, 2005, for similar examples from modern German). However, because my aim in this paper is to refute the hypothesis that Old English behaved like Modern English in disallowing null subjects, I have erred on the side of caution by excluding all such examples.
6. It must be emphasized, however, that the use of the YCOE, which is based on critical editions, means that the figures in this table are underestimations of the actual frequencies of null subjects in these texts.
7. A reviewer pointed out that I assume that scribes may have been responsible both for inserting pronouns ahistorically and omitting them ungrammatically. There is no contradiction here. The former process can be seen as a possibility of “intelligent revision,” undertaken consciously by later scribes, whereas the latter can be ascribed to slips of the pen or of the mind. Sadly, it is impossible to know the fact of the matter in most cases.
8. Null subjects do occur in present-day English; however, the distribution across contexts is not the same. See Weir (2008).
9. Such examples (see also Rusten, 2010:76) could also be taken to support the view that Old English permitted non-nominative subjects (Allen, 1995; Barðdal, 2000; Harris, 1973; Haugland, 2007). In the YCOE, however, it is assumed for annotation purposes that subjects are nominative.
10. The only possible exception is MS. C of the *Chronicle*. Swanton (1996:xxiv) noted that it was produced at Abingdon “on the border between Wessex and Mercia.” If Mercian influence can be suggested on this basis, then the (few) examples of null subjects in this text cease to present a problem for my hypothesis.
11. Berndt (1956:82–85) considered but rejected the hypothesis of dialectal variation, instead suggesting that the relevant criterion is closeness to the West Saxon “standard.” However, his argument rested on the claim, which he justified on functional grounds, that the systematic use of first- and second-person pronouns was an innovation in colloquial Old English; as comparative data from the other early Northwest Germanic languages shows (see Walkden, 2012), this is unlikely to have been the case.
12. All *p* values are from two-tailed Fisher exact tests (Fisher, 1922).
13. First- and second-person dual pronouns have been treated as plural. Note that the existence of a person effect in *Bede*, in which the overall frequency of null subjects is much lower than in *Beowulf* of *Bald’s Leechbook*, is striking, because frequency has been observed to affect null subject contexts (e.g., Erker & Guy, 2012); it is not the case that, as a reviewer of an earlier draft of this paper plausibly suggested, the person effect in Old English only emerges in texts where the overall frequency is high.
14. A reviewer expresses skepticism as to whether the partial null argument languages really represent a natural class rather than a dustbin category (see also Walkden, 2012:217). It may well be that more

fine-grained research will ultimately find the present typology to be insufficiently discriminatory; hopefully, however, it will prove to be a useful starting point.

15. Following the approach to head movement proposed by Roberts (2010), Holmberg (2010) suggested that this incorporation occurs because the features of the  $\varphi$ P goal are a proper subset of those of the probe  $T^0$  (which bears uninterpretable  $\varphi$ -features).

16. The presence or absence of [uD] on  $T^0$ , for Holmberg (2010:101–102), is simply a matter of parametric variation, though he speculated that it might be related to the presence or absence of overt definiteness marking elsewhere in the language.

17. I also abstract away from issues of locality and intervention, as well as the precise nature of the probing feature (given here simply as [u $\varphi$ ]). For more details, see Walkden (2012).

18. The presence or availability of the information-structural layer of the C-domain may or may not be connected to the possibility of movement of the verb into the C-domain in subordinate clauses. Axel (2007) proposed for Old High German that null subjects in subordinate clauses are licensed only in postfinite position (i.e., in subordinate clauses that are also verb-second), based on Adams's (1987) account of Old French. There is no clear evidence for a relation between verb-second and null subjects in Old English, however. Six of the 10 examples of null subjects in indicative subordinate clauses in *Beowulf*, including (10), as well as 2 of the 6 examples in *Bald's Leechbook*, cannot be analyzed as involving verb movement to the left periphery. Furthermore, Schlachter (2010:161–163) found many counterexamples to Axel's (2007) generalization from the Old High German *Isidor*. I will therefore assume that the two properties—verb movement and an active expanded left periphery—are independent of one another, though further research is needed.

19. Though (i) is one exception:

(i) Gif se briw & se drenc inne gewuniað þu meahþ þone  
 if the brew and the drink inside remain you may the.ACC  
 man gelacnian, gif  $\emptyset$  him offleogeð him bið selre þæt þu  
 man.ACC heal.INF if him off-flow him is better that you

hine na ne grete.SBJV

him not NEG handle

'If the brew and the drink remain within him, you may heal the man; if **they** flow off him, it is better that you do not touch him'

(colaece,Lch\_II\_[3]:22.1.5.3714)

Four other similar examples can be found in the YCOE and YCOEP, but these others can all be construed as involving dative subjects (see note 9) rather than null subjects. Given the general extreme rarity of examples of null subjects in subordinate clauses, it is difficult to know what weight to accord such isolated exceptions.

20. At the time of writing, I was unaware of the dissertation by Rusten (2010), which also investigated null referential subjects in Old English. Rusten's (2010) careful investigation reached many of the same conclusions that are made here, for example, with respect to the split between persons, to the general rarity of null subjects in West Saxon, and to the insufficiency of verbal morphology for identification. Although the scope of Rusten's work is smaller than that of the present paper in terms of the texts used (e.g., no *Beowulf*, *Bald's Leechbook*, or *Lives of Saints*), there is one respect in which it goes further: in considering the syntactic status of the antecedent. Rusten (2010:77–82) found that 66 percent of his sample of null subjects are coreferential with a preceding subject, but that the remaining examples have highly varied antecedents, including genitives and the objects of prepositions. He suggested that topicality may play a role in constraining antecedents, though there are some apparent counterexamples (Rusten, 2010:95).

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