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To him vs. *him to:* The variable syntax of pronominal prepositional objects in Old English[1]

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ABSTRACT

The variable positioning of personal pronouns in Old English prose remains something of a mystery. In the role of prepositional object, for example, personal pronouns are often found in positions where functionally-equivalent full NPs are rarely attested. Using data drawn from the largest available parsed corpus of Old English prose, I reveal evidence of a statistically significant correlation between pronoun placement and grammatical person. By demonstrating that this correlation defies independent explanation, I argue that the pronoun's specification for person is an important aspect of its syntax. Two other factors which appear to condition the special placement of pronouns are also identified.

1 INTRODUCTION

Old English word order has been, and continues to be, the subject of extensive research, but there remain a number of syntactic phenomena which are not fully understood. One such phenomenon concerns the apparently optional placement of personal pronouns in positions where functionally-equivalent nominals and full NPs are rarely attested. For example, when functioning as the object of a preposition, full NPs are almost invariably found to the immediate right of the preposition, as in (1):[2]

(1) se com **to þam halgan**
he came to the saint
'he came to the saint'
(coaelive, ÆLS_[Swithun]:421.4483)

Personal pronouns, on the other hand, may be found on either side of a governing preposition, as in (2a, b), and sometimes even further to the preposition's left, as in (2c):

(2) (a) Ac þa hundas comon **to him**
But the dogs came to him
'But the dogs came to him'
(cogregdC,GDPref_and_4_[C]:34.310.6.4623)

(b) and se hælend sylf of heofonum com **him to**
and the Saviour Himself from heavens came him to
'and the Saviour Himself came to him from heaven'
(coaelive,ÆLS_[Thomas]:13.7546)

(c) ond misenlico wilddeor **him** þær comon **to**
and various wild-beasts him there came to
'and various wild beasts came to him there'

(comart3,Mart_5_[Kotzor]:Ju2,A.6.887)

Although leading theories of Old English syntax predict the placement of pronominal objects in special positions to be a freely available option (e.g. van Kemenade 1987, Pintzuk 1991), studies of the syntax of pronominal prepositional objects in particular have found evidence which suggests that their special positioning is sensitive to a number of factors, including: pronoun reflexivity (Taylor 2006: 11); pronoun case (Wende 1915: 80–1, Mitchell 1978: §3); grammatical number of the pronoun (Taylor 2006: 8–9); modification or coordination of the preposition (Wende 1915: 65–8); the particular preposition involved (Wende 1915: 71–3, Kitson 1996: 28–32, Taylor 2006: 9–10); the preposition's semantics (Wende 1915: 73–76); the preposition's function (Wende 1915: 68–69); the particular verb with which the preposition co-occurs (Taylor 2006: 11); and, in Latin translations, whether the text is biblical and whether the Old English PP corresponds to a PP in the Latin original (Taylor 2006: 11–12).[3] In preparation for a multivariate analysis of such factors to establish how much of the observed variation can be attributed to their combined effects, this paper reports the results of an investigation of one particular and seldom-noted correlation involving the pronoun's specification for grammatical person to determine whether this factor merits treatment as an independent variable also.

The motivation for this investigation is found in Wende's (1915) extensive study of the placement of prepositional objects in Anglo-Saxon. Wende's examination of Old

English data includes an analysis of the placement of pronominal objects of *to* 'to', *on* 'on, in', *fram* 'from, by', *mid* 'with' and *for*(*e*) 'before, for' occurring in four major prose texts.[4] Each of these objects was also categorised by grammatical person, revealing a striking difference in the frequency of special placement of third person pronouns in comparison to first and second person pronouns, as summarised in Table 1.

	left-of-P	right-of-P	total	% specially placed
first person	10	190	200	5%
second person	7	109	116	6%
third person	347	416	763	45.4%
total	364	715	1,079	33.7%

Table 1

Pronoun placement by grammatical person (Wende 1915: 76)

Despite more recent reports of a range of person-related syntactic asymmetries cross-linguistically (cf. §4), there has been no subsequent investigation of the apparent significance of third person reference for the special placement of personal pronouns in Old English; consequently it is presently unclear how the data in Table 1 should be interpreted.

This paper seeks an explanation for the data trend shown in Table 1. The possibility that this grammatical person asymmetry (henceforth GPA) is simply a sampling artefact is considered and rejected in §2. In §3 I falsify three other hypotheses, each attempting to explain the GPA by reference to factors other than the pronouns' specification for grammatical person. Having demonstrated that the GPA defies these

independent explanations, in §4 I defend the treatment of grammatical person as an independent variable in my ongoing research into the predictability of pronoun placement in Old English and discuss how the findings of this paper might be more fully understood.

2 EXTENDING THE EVIDENCE BASE

2.1 *Introduction*

As Wende's data consist of the pronominal objects of a small number of prepositions occurring in a small number of (admittedly sizeable) texts, it is possible that the correlation between special placement and third person reference evident in Table 1 is simply a sampling artefact. However, in this section I show that the same effect is also evident in a more extensive set of data.

The York-Toronto-Helsinki Parsed Corpus of Old English Prose, or YCOE, (Taylor et al. 2003) incorporates some 1.5 million words from one hundred Old English prose texts. With the aid of CorpusSearch 2 (Randall 2005), I extracted from the YCOE all personal pronouns parsed as the unmodified and uncoordinated object of a preposition.[5] A total of 9,698 tokens were found and each was classified according to grammatical person and position relative to its prepositional governor.[6] As grammatical person is not distinguished by the YCOE labelling scheme, tokens were classified for person according to their word-initial letter, with <m-> and <u-> forms categorised as first person, <þ->, <ð->, <i-> and <e-> forms categorised as second person, and <h-> forms categorised as third person.[7] For the positional variable, two levels were employed: 'left-of-P', for specially placed pronouns, and 'right-of-P', for pronouns which follow the preposition.[8] For comparative purposes, I also extracted all other NPs

parsed as prepositional object and classified these 109,849 tokens according to their position relative to their prepositional governor.[9]

2.2 *Results*

Table 2 summarises the results of the pronominal data analysis by person and position.

	left-of-P	right-of-P	total	% specially placed
first person	170	1,441	1,610	10.6%
second person	136	1,206	1,342	10.1%
third person	2,460	4,286	6,746	36.5%
total	2,766	6,933	9,698	28.5%

Table 2

Pronoun placement by grammatical person (YCOE)

While the percentages in Table 2 differ somewhat from those in Table 1, the same general trend clearly obtains: third person tokens appear to the preposition's left much more frequently than do first and second person tokens. As the difference between first and second person data in Table 2 is not significantly different ($\chi^2 = 0.14$, $p = 0.7$), these categories were collapsed into a single 'non-third person' category. The difference in frequency of special placement between third and non-third person pronouns, on the other hand, is highly significant ($\chi^2 = 686.15$, $p < 0.0001$).[10]

Whereas 28.5% of bare personal pronouns were found to occur somewhere to the left of a governing preposition in the YCOE, the equivalent figure for the 109,849 other NPs is just 0.09% (or 99 tokens). And although these 99 tokens have not been

examined in detail, it is clear that some admit a straightforward explanation, e.g. *tough* movement.

In summary, there is clear evidence that the significance of third person reference for the special placement of bare personal pronouns functioning as the object of a preposition (henceforth PPOPS) reported by Wende (1915: 76) is not an artefact of his sampling. The YCOE data also lend support to hitherto unquantified claims that the vast majority of specially placed prepositional objects are bare personal pronouns.

3 GRAMMATICAL PERSON AS AN INDEPENDENT VARIABLE

3.1 *Introduction*

Having shown that Wende's results cannot be explained as a sampling artefact, a more detailed analysis is now required to establish whether they are consequent upon the pronouns' specification for grammatical person in particular. In this section I attempt to falsify this null hypothesis by exploring three alternative explanations for the GPA.

The first hypothesis, motivated by cross-linguistic work on pronoun typology, assumes that the GPA results not from the pronouns' specification for person, but rather from their specification for the feature [human] (§3.2). After rejecting this hypothesis on empirical grounds, I then consider whether the GPA is simply a consequence of the low frequency of third person PPOPs and the high frequency of non-third person PPOPs in one particular context which appears to disfavour their special placement (§3.3). After rejecting this hypothesis on empirical grounds also, I finally explore whether the GPA can be explained as a by-product of the effects of various other factors which are known or believed to condition the placement of PPOPs in Old English (§3.4). Once again, the evidence favours the pronouns' person specification as the more likely explanation.

3.2 *The [human] hypothesis*

3.2.1 *Introduction*

Across a diverse range of unrelated languages, pronouns with non-human reference have been shown to exhibit special syntactic behaviour, such as an inability to be modified or coordinated and an inability to appear in peripheral positions (for evidence from modern West Germanic varieties, see Haegeman 1993, Cardinaletti & Starke 1996, 1999, Cardinaletti 1999). Assuming, uncontroversially, that a [-human] specification typically entails third person reference, it therefore seems reasonable to hypothesise that the 'real' factor behind the data trends evident in Tables 1 and 2 is the pronouns' specification for [human].

This idea, of course, presupposes that third person pronouns are free to refer to non-humans when functioning as the object of a preposition, yet evidence from modern West Germanic varieties suggests that this cannot be taken for granted. For example, while PPOPs may be specified [-human] in modern Standard German (Cardinaletti & Starke 1996: 30), e.g. (3), the same is not true for non-Southern varieties of modern Dutch ('NSV Dutch') (Toebosch 2003: 45–7), e.g. (4a), although the same NSV Dutch pronoun is grammatical when specified [+human], e.g. (4b).[11]

(3) *Modern Standard German*

Ich kann **ohne es** nicht leben

I can without it not live

'I can't live without it'

(Cardinaletti & Starke 1996: 30, ex. 28a)

(4) *NSV Dutch*

(a) *toen ze **naar'm** keek[12]

when she to-it looked

'when she looked at it (= the cabinet)'

(Toebosch 2003: 46, ex. 47a)

(b) toen ze **naar'm** keek

when she to-him looked

'when she looked at him (= John)'

(Toebosch 2003: 46, ex. 46)

This evidence from NSV Dutch immediately raises questions about the viability of the proposed [human] hypothesis: if Old English places similar constraints on the semantics of PPOPs, then all tokens will be specified [+human], irrespective of their position in the clause. The first step, then, is to investigate whether third person PPOPs are free to refer to non-humans in Old English.

3.2.2 *Methodology*

A systematic study of the frequency with which Old English personal pronouns refer to non-humans when functioning as the object of a preposition is unavoidably complicated by the fact that grammatical gender and natural gender do not necessarily coincide in the nominal system: accordingly *any* third person pronoun may, in principle, have a non-human referent.

To gauge the frequency of PPOPs with non-human reference, two separate samples were analysed. §3.2.3 deals with the first sample and its analysis, §3.2.4 with

the second sample and its analysis. The significance of the two sets of results is discussed in §3.2.5.

3.2.3 *First sample*

The first sample targeted neuter PPOPs. According to Mitchell (1985: §§55–71): neuter pronouns typically refer back to neuter nouns; neuter nouns typically refer to non-humans entities; and anaphoric reference to those few neuter nouns with human reference tends to reflect natural gender, e.g.:

(5) (a) Ðæt cild … he
The child-NEUT … he-MASC
(ÆCHom i.24.27 [Mitchell 1985: §69 (3a)])

(b) to ðam wife … hire
to the woman-NEUT … her-FEM
(ÆCHom i.16.32 [Mitchell 1985: §69 (3a)])

This means we can expect few neuter pronouns to be specified [+human] in the YCOE.

Since *hit* 'it (acc, 3sg, neut)' is the only unambiguously neuter object form in the Old English personal pronoun paradigm, I isolated all instances from the 6,746 third person tokens reported in Table 2.[13] Just seven tokens were found, and each was examined in context to identify its antecedent's referent. Two tokens were found to refer back to *cild* 'child (neut)', as illustrated in (6).

(6) Þonne se mæssepreost cristnað ærest þæt cild, þonne orðað he þriw
When the mass-priest christens first the child then breathes he three

on an **on hit**

forthwith on it

'When the high-priest first christens the child, he then breathes thrice (literally *three*) on it forthwith'

(cowulf,WHom_8b:15.549)

None of the remaining five tokens is specified [+human]. The token in (7a) appears to refer to an idea expressed earlier in the text, given in (7b).[14] The other four tokens are given in (8).

(7) (a) gif ge **hit** georne **ymbe** smeagan willað & æfter spyrigan
if you it carefully about think wish and later pursue
'if you wish to think carefully about it and later pursue it'

(coboeth,Bo:16.36.4.651)

(b) Hu micle mare is ðonne þæs monnes lichoma to metenne wið þæt
How much greater is then the man's body to measure against the
mod þonne seo mus wið ðone mon
mind than the mouse against the man
'How much greater, then, is man's body compared to his mind, than the mouse compared to man?'

(coboeth,Bo:16.36.2.650)

(8) (a) *pronoun antecedent:* gewitt *'sense, knowledge (neut)'*[15]

midðæm ðe **hit** cnyssað **on** unryhta wilnunga, & hit toterað

when it strike against unrighteous desires and it destroy

'when unrighteous desires strike against it and destroy it'

(cocura,CP:52.405.3.2769)

(b) *pronoun antecedent:* assa *'he-ass (masc)'*

gyf ðu þonne wurþ **for hit** ne sylst, hit sceal sweltan

if you then price for it not give it must die

'if you then do not give the price for it, it will die'

(cootest,Exod:34.20.3594)

(c) *pronoun antecedent:* weofod *'altar (neut)'*

gyf ðu ðin tol ahefst **ofer hit**

if you your tool raise over it

'if you raise your tool over it'

(cootest,Exod:20.25.3212)

(d) *pronoun antecedent:* hus *'house (neut)'*

& gyf þæt hus witodlice wyrþe byð eower syb cymð **ofer hyt**

and if the house truly worthy is your peace comes over it

'and if the house is truly worthy, your peace will come over it'

(cowsgosp,Mt_[WSCp]:10.13.600)

To test whether the low frequency of *hit* as PPOP results from a low frequency of accusative PPOPs quite generally, I also isolated all instances of *hine* 'him, it (acc, 3sg, masc)'. This supplementary search retrieved 496 tokens.[16]

It is clear, then, that ***hit***, the pronoun most likely to be specified [-human], rarely occurs as the object of a preposition in the YCOE, both in absolute terms and in comparison to the control pronoun. Although four tokens were found to refer to non-human entities and another was found to have a linguistic antecedent, it is possible that their apparent exceptionality may be connected to their occurrence in Latin translations.

3.2.4 *Second sample*

Although Old English neuter nouns typically denote non-humans, it is not the case that non-humans are typically denoted by neuter nouns (Mitchell 1985: §60). Where the antecedent is a masculine or feminine noun with non-human reference, the pronoun usually reflects grammatical gender (Mitchell 1985: §71c), e.g. (9). Where the antecedent is a masculine or feminine noun with human reference, the pronoun tends to reflect both natural and grammatical gender (Mitchell 1985: §71a), e.g. (10).

(9) *Non-neuter nouns with non-human reference*

(a) þes monað … he

this month-MASC … it-MASC

(ÆCHom i.98.35 [Mitchell 1985: §69 (3b)])

(b) Seo eorðe … heo

The earth-FEM … it-FEM

(ÆCHom i.108.16–21 [Mitchell 1985: §69 (3b)])

(10) *Non-neuter nouns with human reference*

(a) se apostol … him

the apostle-MASC … him-MASC

(ÆCHom i.60.11 [Mitchell 1985: §45])

(b) seo foresprecene cwen … to hire

the aforesaid woman-FEM … to her-FEM

(cobede,Bede_3:9.184.7.1828)

The second sample provides an analysis of all third person PPOPs occurring in a single text file, namely ***Lives of Saints.***[17] A total of 517 tokens were found. The antecedent of each token was categorised as either 'human' or 'other', with the 'human' category reserved for: persons (living or dead, and including the Saints); Christ; God; the Gods; angels; and the devil or devils. The results are summarised in Table 3.

	no. of tokens
human referent	503
other referent	14
total	517

Table 3

Third person PPOPs by type of antecedent's referent

Table 3 shows that 97.3% of the third person PPOPs occurring in the *Lives of Saints* text file have an unambiguously 'human' referent, although some of the 'other' referents also show signs of personification. Consider (11) for example:

(11) Þas ðincg soðlice, ðæt is se lichama and seo sawl winnað **him**

These things verily, that is the body and the soul fight themselves

betweonan.

between.

'These things verily, that is the body and the soul, fight between themselves.'

(coaelive, ÆLS_[Auguries]:7.3537)

Being co-indexed with the subject of *winnan* 'to fight, strive, struggle', *se lichama* (nom, masc) and *seo sawl* (nom, fem) are already understood with a sense of agency which is further implied in the immediately ensuing text:

(12) Ac seo sawl is ðæs flæsces hlæfdige, and hire gedafnað þæt heo simle gewylde
But the soul is the flesh's mistress and her befits that she ever rule
ða wylne, þæt is þæt flæsc, to hyre hæsum
the bondmaid that is the flesh to her hests
'But the soul is the flesh's mistress, and it befitteth her that she should ever rule the bondmaid, that is the flesh, according to her hests'

(coaelive,ÆLS_[Auguries]:8.3538–9)

The remaining 'other' referents include concrete entities such as the sun and the earth, and abstract concepts such as life, pride and God's holy law. While this is not the place to debate Anglo-Saxon philosophy or anthropomorphism, I suggest that such considerations might help explain the apparently exceptional use of a PPOP with non-human reference in this sample.

3.2.5 *Summary*

The analyses of both samples suggest that, when functioning as the object of a preposition, personal pronouns rarely refer to non-human entities in Old English.[18] Of course only the first sample is sufficiently comprehensive for this generalisation to be made with certainty. Nevertheless I conclude that, taken together, the results provide sufficient grounds for rejecting the hypothesis that the underlying basis of the GPA is the pronouns' specification for [human].

3.3 *Direct speech study*

3.3.1 *Introduction*

The YCOE editors' decision to label material occurring in direct speech made it possible to identify another person-related difference among PPOPs: approximately 80% of non-third person tokens occur in direct speech compared to approximately 14% of third person tokens. In this section I reveal that, irrespective of person specification, PPOPs are also about half as likely to be specially-placed in direct speech contexts as they are elsewhere. Since non-third person tokens preponderate in direct speech contexts (where special placement is *less* frequent) and third person tokens preponderate elsewhere (where special placement is *more* frequent), I then consider whether the GPA is simply a by-product of these facts.

3.3.2 *Methods and results*

Clauses of direct speech are identified in the YCOE by means of a unique 'SPE' label, which is attached to clauses which complement a verb of saying and, in certain texts, to personal comments of the narrator (henceforth [+SPE] contexts).[19] Within the YCOE a total of 3,246 PPOPs within 60 text files were found to occur in [+SPE] contexts. To

ensure a fair comparison of third and non-third person data, I excluded from this total all tokens obtained from text files which did not yield at least one third person and at least one non-third person token. This reduced the [+SPE] dataset to 3,173 tokens from 43 text files. Finally, to ensure a fair comparison between data occurring in [+SPE] contexts and data occurring elsewhere (henceforth [-SPE] contexts), I extracted the remaining 5,178 PPOPs from the same 43 text files.[20]

Table 4 summarises the results of the analysis of the [+SPE] and [-SPE] data by person and position.

	[+SPE] contexts			[-SPE] contexts		
	left-of-P	right-of-P	total	left-of-P	right-of-P	total
non-third person	210	2,030	2,240	76	368	444
third person	207	726	933	1,845	2,889	4,734
total	417	2,756	3,173	1,921	3,257	5,178

Table 4

PPOP placement by grammatical person and [SPE] context

Firstly, Table 4 reveals that 83.5% (or 2,240/2,684) of non-third person tokens occur in [+SPE] contexts compared to just 16.5% (or 933/5,667) of third person tokens, broadly consistent with what is found across the corpus as a whole (cf. §3.3.1).

Secondly, it is evident that the special placement of PPOPs occurs approximately twice as frequently in [-SPE] contexts as in [+SPE] contexts: 17.1% *vs.* 9.4% for non-third person data ($\chi^2 = 23.33$, $p < 0.0001$); and 39% *vs.* 22.2% for third person data ($\chi^2 = 95.09$, $p < 0.0001$). To my knowledge this correlation has not

previously been reported, although further research is needed to understand its underlying basis.

However, despite the preponderance of non-third person tokens in [+SPE] contexts (where special placement is less frequent) and the preponderance of third person tokens in [-SPE] contexts (where special placement is more frequent), Table 4 also shows that third person PPOPs precede the preposition significantly more frequently in comparison to non-third person PPOPs, both in clauses of direct speech ($\chi^2 = 94.71$, $p < 0.0001$) and elsewhere ($\chi^2 = 83.1$, $p < 0.0001$).

In conclusion, the discovery that special placement of PPOPs is significantly less frequent in direct speech is an extremely interesting finding in its own right, but appears to offer no insight into the underlying basis of the GPA.

3.4 Cweðan to *study*

3.4.1 *Introduction*

In her study of effects of Latin word order on the placement of PPOPs in translations from Latin to Old English, Taylor (2006) found a number of factors to have a statistically significant effect, including pronoun reflexivity and idiosyncrasies associated with particular verbs and prepositions.[21] In this section I present the results of a study designed to control for some of these effects by focusing on the behaviour of PPOPs which co-occur with one particular verb + preposition combination, namely *cweðan to* 'to say, speak, declare to'. This combination was selected for several reasons: firstly, it has already been associated with the GPA by Wende (1915: 76); secondly, it was expected to yield a reasonable number of tokens; thirdly, it was expected to occur primarily with non-reflexive PPOPs, allowing effects of pronoun reflexivity to be

controlled; fourthly, it holds the verb and preposition constant, allowing verbal and prepositional idiosyncrasies to be controlled; and fifthly, it controls for possible effects of pronoun case, since this construction invariably selects a dative object.[22]

The methodology of this '*cweðan to*' study is presented in §3.4.2, the data are analysed in §3.4.3 and my findings are summarised in §3.4.4.

3.4.2 *Methodology*

The clauses containing the 9,698 tokens reported in Table 2 were filtered to isolate those in which the PPOP is parsed as the object of a *cweðan to* construction. This search produced 1,196 tokens from 46 text files.[23] Again, to ensure a fair comparison of data, I excluded all tokens obtained from text files which did not yield at least one third person and at least one non-third person token. This reduced the *cweðan to* dataset to 1,022 tokens from 18 text files.

To help gauge whether any interesting aspects of the *cweðan to* data are construction-specific or obtain more generally, I separately retrieved all remaining PPOPs from the same 18 text files. This produced 3,968 tokens for the control dataset, which consists of those PPOPs which co-occur with any other verb and preposition combination.[24]

3.4.3 *Data analysis*

3.4.3.1 *Initial findings*

The 1,022 PPOPs in the *cweðan to* dataset were firstly analysed for reflexivity. Reflexive pronouns are identified in the YCOE by means of a unique 'RFL' label, which is attached to non-possessive pronouns which are coreferential with the subject of their clause. None of the 1,022 PPOPs in this sample were found to carry this label.

The tokens in each dataset were then analysed by grammatical person and position relative to the preposition. The results are given in Table 5.

	cweðan to data			control data		
	left-of-P	right-of-P	total	left-of-P	right-of-P	total
non-third person	10	59	69	74	1,402	1,476
third person	425	528	953	807	1,685	2,492
total	435	587	1,022	881	3,087	3,968

Table 5

PPOP placement by grammatical person in cweðan to *and control constructions*

The results for the *cweðan to* dataset reveal that, despite controlling for pronoun reflexivity, case and the particular verb + preposition combination, the GPA remains statistically significant: of the 69 non-third person PPOPs, 14% appear somewhere to the preposition's left compared to 44.6% of the 953 third person PPOPs ($\chi^2 = 23.85$, $p < 0.0001$). Note that the control data provide assurance that the *cweðan to* construction is not responsible for the GPA, as they too exhibit a statistically significant GPA ($\chi^2 = 402.02$, $p < 0.0001$).

3.4.3.2 *Effect of position of preposition relative to the verb*

Immediately apparent from a cursory inspection of the *cweðan to* data was a strong correlation between the position of the PPOP relative to *to* and the position of *to* relative to the form of *cweðan*, as illustrated by the following minimal pairs:

(13) (a) Petrus cwæð **to him**
Petrus said to him
'Petrus said to him'
(cogregdC,GDPref_1_[C]:7.5.48)

(b) Petrus **him to** cwæð
'Petrus said to him'
(cogregdC,GD_1_[C]:2.20.5.196)

(14) (a) and cwæð **to me**
and said to me
'and said to me'
(conicodC,Nic_[C]:145.154)

(b) and **me to** cwæð
'and said to me'
(conicodC,Nic_[C]:220.227)

This apparent relationship between left-of-V prepositions and left-of-P PPOPs and between right-of-V prepositions and right-of-P PPOPs prompted an analysis of the frequency of special placement of PPOPs according to the preposition's position relative to the verb, as summarised in Table 6.[25]

	cweðan to data			control data		
	left-of-P	right-of-P	total	left-of-P	right-of-P	total
[P V] contexts	166	17	183	474	1,225	1,699
[V P] contexts	269	570	839	407	1,862	2,269
total	435	587	1,022	881	3,087	3,968

Table 6

PPOP placement by position of P relative to V

Table 6 shows that special placement of PPOPs indeed occurs significantly more frequently when the preposition precedes the verb, i.e. in [P V] contexts, than when the preposition follows the verb, i.e. in [V P] contexts. This is especially true of the *cweðan to* data, where 90.7% (or 166/183) of PPOPs occurring in [P V] contexts precede the preposition compared to 32.1% (or 269/839) of PPOPs occurring in [V P] contexts ($\chi^2 = 211.37$, $p < 0.0001$), but is also true of the control data, where 27.9% of PPOPs occurring in [P V] contexts precede the preposition compared to 17.9% of PPOPs occurring in [V P] contexts ($\chi^2 = 55.81$, $p < 0.0001$). While Table 6 provides (hitherto lacking) quantitative evidence for the claim by Quirk & Wrenn (1955: §141) that 'postposition [of the preposition] is most frequent … when it enables the preposition to stand before a verb form', without further analysis the reason for this correlation is unclear.[26]

Having observed that special placement of PPOPs occurs more frequently when the preposition precedes rather than follows the verb, the data in Table 6 were then analysed by grammatical person to test whether the GPA is evident in both contexts. Data occurring in [V P] contexts are presented first in Table 7.

	cweðan to data			control data		
	left-of-P	right-of-P	total	left-of-P	right-of-P	total
non-third person	2	56	58	9	958	967
third person	267	514	781	398	904	1,302
total	269	570	839	407	1,862	2,269

Table 7

PPOP placement by grammatical person in [V P] contexts

It is clear that the GPA is manifest in [V P] contexts of both datasets: 4% of non-third person PPOPs in the *cweðan to* dataset precede the preposition compared to 34.2% of third person PPOPs; and 0.9% of non-third person PPOPs in the control dataset precede the preposition compared to 30.6% of third person PPOPs. These results further show that, when grammatical person is controlled, the frequency of special placement in [V P] contexts differs little between the two datasets.[27]

The analysis of the data occurring in [P V] contexts is presented in Table 8.

	cweðan to data			control data		
	left-of-P	right-of-P	total	left-of-P	right-of-P	total
non-third person	8	3	11	65	444	509
third person	158	14	172	409	781	1,190
total	166	17	183	474	1,225	1,699

Table 8

PPOP placement by grammatical person in [P V] contexts

Again the GPA is clearly manifest in both datasets: 73% of non-third person PPOPs in the *cweðan to* dataset precede the preposition compared to 91.9% of third person PPOPs; and 12.8% of non-third person PPOPs in the control dataset precede the preposition compared to 34.4% of third person PPOPs. These percentages further indicate that the frequency of special placement of PPOPs in [P V] contexts is especially frequent in *cweðan to* constructions, although the reason for this is also unclear.[28]

In sum, it appears that pre-verbal placement of the preposition significantly increases the likelihood of the special placement of PPOPs irrespective of their person specification. Nevertheless this finding does not explain why third person PPOPs are significantly more likely to be specially placed than non-third person PPOPs.

3.4.3.3 *Translation effects*

Once the various unwanted effects outlined in §3.4.1 were controlled for, Taylor (2006) found strong evidence that the invariable head-initial word order of Latin PPs inhibited the special placement of PPOPs in translations from Latin to Old English.[29] As a large proportion of texts included in the YCOE are Latin translations the two sets of data were further analysed according to whether or not the source text is a Latin translation. The results of this initial analysis are summarised in Table 9.[30]

	cweðan to data			control data		
	left-of-P	right-of-P	total	left-of-P	right-of-P	total
translations	146	502	648	330	1,743	2,073
non-translations	268	69	337	547	1,263	1,810
total	414	571	985	877	3,006	3,883

Table 9

PPOP placement in Latin translations and in non-translations

As predicted by Taylor (2006), the data in Table 9 show signs of Latin interference: in the *cweðan to* dataset 22.5% (or 146/648) of PPOPs occurring in Latin translations precede the preposition compared to 79.5% (or 268/337) of PPOPs occurring in non-translations (χ^2 = 295.58, $p < 0.0001$). A similar, although less marked, trend is evident in the control data, in which 15.9% of PPOPs occurring in Latin translations precede the preposition compared to 30.2% of PPOPs occurring in non-translations (χ^2 = 113.05, $p < 0.0001$).

Having found evidence that special placement of PPOPs occurs more frequently in non-translations than in translations, the data in Table 9 were then analysed by person in order to determine whether the GPA is evident in both types of data source. Data occurring in Latin translations are analysed first in Table 10.

	cweðan to data			control data		
	left-of-P	right-of-P	total	left-of-P	right-of-P	total
non-third person	6	46	52	36	707	743
third person	140	456	596	294	1,036	1,330
total	146	502	648	330	1,743	2,073

Table 10

PPOP placement by grammatical person in Latin translations

Table 10 suggests that there is a significant GPA in Latin translations: less so in the *cweðan to* dataset where 12% of non-third PPOPs precede the preposition compared to 23.5% of third person PPOPs ($\chi^2 = 3.91$, $p = 0.048$); and more strongly so in the control data where 4.8% of non-third person PPOPs precede the preposition compared to 22.1% of third person PPOPs ($\chi^2 = 106.1$, $p < 0.0001$).

The analysis of the data occurring in non-translations is presented in Table 11.

	cweðan to data			control data		
	left-of-P	right-of-P	total	left-of-P	right-of-P	total
non-third person	2	12	14	34	644	678
third person	266	57	323	513	619	1,132
total	268	69	337	547	1,263	1,810

Table 11

PPOP placement by grammatical person in non-translations

Unfortunately the distribution of the *cweðan to* data in Table 11 is not suitable for chi-square analysis although it is certainly consistent with the general trend of the GPA. In the control data, however, the GPA is clearly evident, with 5% of non-third person PPOPs preceding the preposition compared to 45.3% of third person PPOPs ($\chi^2 = 326.62$, $p < 0.0001$).

In sum, the data in Tables 10 and 11 provide convincing evidence that third person PPOPs are significantly more likely than non-third person PPOPs to precede the preposition whether or not they occur in a Latin translation.[31]

3.4.4 *Summary*

The results of the *cweðan to* study show that even when the preposition, verb and PPOP case are held constant and the possible effects of pronoun reflexivity are factored out, the GPA persists. Although the special placement of PPOPs appears to be sensitive to the ordering of the preposition and verb, the data further suggest that the GPA is independent of this factor also. Finally, the manifestation of the asymmetry in translated texts as well as in non-translated texts suggests that the significance of third person reference for the special placement of PPOPs is also independent of Latin interference.

4 DISCUSSION AND OUTLOOK

The special placement of personal pronouns to the left of a governing preposition in Old English prose has so far evaded a comprehensive account. In this paper, however, I have shown how three factors, two seldom-noted and one previously unreported, appear to play an important role in conditioning the phenomenon.

Firstly, I have shown that Wende's (1915: 76) discovery of the significance of third person reference for the special placement of PPOPs in Old English prose cannot

be attributed to his sampling methods, to a contrast in the pronouns' specification for the feature [human], nor to the effects of the various factors which were controlled for in the studies discussed in §3.3 and §3.4.[32] Although I am unaware of any other study of the relationship between grammatical person and the special placement of pronouns, it may be noted that many other third *vs.* non-third person grammatical asymmetries are attested cross-linguistically, for example: the general Person-Case Constraint (Bonet 1994), which precludes the combination of a non-third person accusative pronoun with a third person dative pronoun, specifically where both pronouns are weak pronouns or clitics (Cardinaletti 1999: 64–5); restrictions on pro-drop in German (Cardinaletti 1990: 79) and in Standard Finnish and Hebrew (Gutman 2004); restrictions on the non-realisation of a clitic double in French (Sichel 2002: 14, fn. 7); and the host for clitic pronouns in certain types of clause in Old Spanish (Nieuwenhuijsen 2002). Viewed from this perspective it is unsurprising that the special placement of PPOPs in Old English exhibits a third person *vs.* non-third person asymmetry in particular (rather than, say, a second person *vs.* non-second person asymmetry), but more data are needed to determine whether the asymmetry is also unsurprising in terms of patterns of special placement of personal pronouns in other functions and in other languages. Nevertheless, I conclude that there is adequate justification for treating grammatical person as an independent variable in a multivariate analysis of the special placement of PPOPs in Old English prose.

Secondly, I have found evidence to suggest that the special placement of PPOPs occurs significantly less frequently in direct speech than in other contexts, but once again there are insufficient directly comparative data to help make sense of this result. For example, Davies (1995) reports a significant difference in the frequency of clitic

climbing (another apparently optional type of pronoun movement) between spoken and written Spanish, but his spoken data cannot be compared to the Old English direct speech data as the latter are not necessarily linguistically faithful representations of original utterances.

The third factor found to correlate significantly with the placement of PPOPs is the position of the preposition relative to the main verb, mysteriously significant especially in *cweðan to* constructions. While the effect has not been tested for other verb + preposition combinations, we may assume that, for reasons which are not presently understood, some combinations will invariably resist special placement, e.g. combinations involving *liefan* 'allow', *þurh* 'through' (Taylor 2006: 9, fn. 9) and combinations selecting a genitive PPOP (Mitchell 1978: §3, Wende 1915: 80).

Finally, it is important to emphasise that the significance of each of the correlations discussed in this paper for a theory of the placement of Old English PPOPs cannot be understood in isolation. Although this paper goes a long way towards establishing a main effect of grammatical person, it is only through the application of multivariate analysis techniques that main, interaction and epiphenomenal effects may be fully differentiated and the predictive ability of different permutations of conditioning factors may be calculated (cf. Hinrichs & Szmrecsanyi 2007: 459–67). This type of analysis is therefore key to elucidating precisely which facts need be accommodated in the theory and may also shed new light on the apparently optional movement of pronouns in other functions and in other languages.

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FOOTNOTES

[1] This paper is an abridged version of my AHRC-sponsored Master's dissertation and I gratefully acknowledge the AHRC's support.

[2] Unless otherwise indicated, references for all Old English examples are to the York-Toronto-Helsinki Parsed Corpus of Old English Prose (Taylor, Warner, Pintzuk & Beths 2003). Translations of examples taken from the YCOE's *Ælfric's Lives of Saints* text file ('coaelive') are those of Skeat (1881–1900).

[3] It is presently unclear whether pronominal objects of verbs display the same sensitivities, primarily because the special placement of these constituents is often ambiguous. See Koopman (1992, 1997) for a discussion of the consequences of phenomena such as topicalization, extraposition and verb second for structural analyses of the position of pronominal objects of verbs.

[4] Wende's corpus of Old English prose consists of: the *Catholic Homilies* (Thorpe 1844–6); *Cura Pastoralis* (Sweet 1871); the Old English *Bede* (Miller 1890–8); and the Parker Chronicle (Plummer 1892).

[5] According to Koopman (1997: 87) and Wende (1915: 65–9), coordinated or modified pronominal objects of prepositions rarely precede their governing preposition.

[6] Excluded from this total are the 15 bare pronouns found to occur between the elements of a complex preposition and whose prepositional governor is therefore ambiguous, e.g. (i). As 96 full NPs were also found to occur complex-medially, e.g. (ii), it seems clear that these 15 pronouns are not specially placed.

(i) (a) on him uppan

‘on it’

(cocura,CP:33.219.1.1457)

(b) wið his weard

‘towards him’

(coaelhom, ÆHom_15:1.2133)

(ii) (a) on ðæm weobude uppan

‘upon the altar’

(cocura,CP:33.219.4.1458)

(b) wiþ þæs heofones weard

‘heavenward’

(coaelive, ÆLS_[Oswald]:114.5449)

[7] All 9,698 tokens began with one or other of these letters. As I found no instances of <it> as prepositional object; <i-> forms are unambiguously second person.

[8] All right-of-P PPOPs in this study occur immediately to the preposition’s right.

[9] ‘Other’ NP prepositional objects include: modified PPOPs; coordinated PPOPs; DPs; bare nominals; and demonstrative pronouns. NP objects whose positions are independently determined by *wh*-movement rules are not included.

[10] All chi-square values were calculated using the online resource published by Lowry (2001–8). For significance at the 0.05 level, the chi-square value should be greater than or equal to 3.84.

[11] See Zwart (2005: 920) for evidence that NSV Dutch is not the only modern West Germanic variety to exhibit this constraint.

[12] Example (4a) can be rescued by replacing *'m* with the 'locative' form *d'r*, which must precede the preposition (Toebsoch 2003: 46).

[13] The search terms targeted all spelling variants of *hit*.

[14] The use of *hit* as a recapitulatory pronoun is noted by Mitchell (1985: §1490).

[15] Clark Hall (1960) lists *oncnyssan* 'to cast down, afflict, vex, oppress'. If the elements of this compound verb can be shown to be separable, then it may be argued that the neuter pronoun in (7b) is in fact a verbal object.

[16] The search terms targeted all spelling variants of *hine*.

[17] This text file was chosen for two reasons: firstly, it is a reasonably large text file (in fact it is the second largest text file in the YCOE and accounts for 7.7% of all third person PPOPs in the corpus); secondly, Skeat's (1881–1900) edition includes a facing page translation, which considerably facilitated the quick identification of the pronouns' antecedents.

[18] In place of a personal pronoun or full NP we find either a demonstrative pronoun (which invariably follows the preposition) or else *þær* 'there' or *her* 'here' (which invariably precede the preposition). Although *þær*/*her* are traditionally classified as adverbs, e.g. Clark Hall (1960), Mitchell (1985: §1062), their pronominal 'flavour' has attracted occasional comment (cf. Mitchell 1985: §1155, fn. 267). Pronominal status is also suggested through their alternative description as 'R-pronouns' (in accordance with their form) or 'locative pronouns' (in accordance with their common function), e.g. van Kemenade (1987: 108–9).

[19] The YCOE editors acknowledge that others might treat a wider range of material as direct speech.

[20] Although the data in this reported speech study are from only 43 of the YCOE's 100 text files, these 43 text files account for 83.1% of PPOPs occurring in the entire corpus.

[21] Taylor found pronoun reflexivity to promote the likelihood of special placement and identified a number of verbal and prepositional idiosyncrasies, the most extreme of which are *liefan* 'allow' and *þurh* 'through' which were found to invariably co-occur with right-of-P PPOPs. Other significant factors reported by Taylor are: translation effects (which I discuss separately in §3.4.3.3); and, for first and second person tokens, grammatical number. With respect to grammatical number, Taylor found that non-third person PPOPs are significantly more likely to precede the preposition when plural than when singular, but the effect for third person PPOPs was not measured because of number ambiguities of most third person object forms. I do not attempt to control for grammatical number in this study for the same reason.

[22] Wende (1915: 77–81) and Colman (1991: 77) claim that the majority of left-of-P PPOPs are dative, although Mitchell (1978: §27) reasons that this simply reflects a preponderance of dative-governing prepositions. If Mitchell is right, we would expect to find similar proportions of dative, accusative and genitive PPOPs in special positions. While the placement of accusative PPOPs has not been systematically analysed, both Wende (1915: 80) and Mitchell (1978: §3) found no unambiguously genitive pronouns to the left of a governing preposition, suggesting that case may indeed play a role in conditioning the special placement of PPOPs.

[23] As the YCOE is not lemmatised, the search targeted all morphological forms of *cweðan* as well as their spelling variants.

[24] The search terms for the control dataset excluded tokens in which the main verb is BE, HAVE or a modal. This is because the YCOE does not distinguish between auxiliary and main verb functions for these verbs.

[25] [V P] and [P V] contexts include those in which the preposition and verb are not immediately adjacent. For example (iii) and (iv) are treated as [V P], and (v) is treated as [P V].

(iii) and he cwæð **him** þa þus **to**
and he said them then thus to
'and he then said to them thus'

(coaelhom,ÆHom_8:20.1174)

(iv) Þæt wif **him** cwæð þa **to**
The woman him said then to
'The woman then said to him'

(coaelhom,ÆHom_5:21.690)

(v) & **to him** þus cwæð
and to him thus said
'and thus said to him'

(corood,LS_5_[InventCrossNap]:143.140)

[26] Visser (1963–73: §709) claims that placement of a PPOP to the preposition's left is often found when 'the predicative verb gets end-position'. This accords with Quirk & Wrenn's statement, although it doesn't go quite as far.

[27] For third person data the difference between the two datasets is not significant ($\chi^2 = 2.94$, $p = 0.08$). The non-third person data is not suitable for chi-square analysis.

[28] For third person data the difference between the two datasets is statistically significant ($\chi^2 = 204.41$, $p < 0.0001$). Again the non-third person data is not suitable for chi-square analysis.

[29] Taylor's findings are actually more complex. She found that the special placement of PPOPs occurring in non-biblical translations is inhibited only where the PP corresponds to a PP in the Latin original. The special placement of PPOPs occurring in biblical translations, on the other hand, exhibits interference effects whether or not there is a corresponding Latin PP. As I am presently concerned with the overall effect of these factors rather than their *modus operandi,* I do not distinguish between biblical and non-biblical data, or between PPs which correspond to a Latin PP and those which do not.

[30] 37 of the 1,022 *cweðan to* PPOPs and 85 of the 3,968 control PPOPs reported in Table 6 occur in text files whose source may or may not be a Latin translation. These 122 PPOPs are therefore not discussed in this section.

[31] In fact the data further suggest that the inhibitory effect of Latin word order on the special placement of PPOPs in translations is *moderated* by the pronoun's person specification, in that the Latin interference reported by Taylor (2006) appears only to affect pronouns with third person reference. This seems to be the case not only in the relevant parts of the *cweðan to* and control datasets, but across all YCOE data derived

from Latin translations. However, as this paper is concerned with evidence of a ***direct*** relationship between grammatical person and PPOP placement, I do not pursue the status of grammatical person as a 'moderator' variable (cf. Jaccard 2001: 12).

[32] One as yet unexplored hypothesis is that the GPA results from a tendency to place pronouns earlier in the clause where the antecedent is either ambiguous or far removed, as is claimed to be the case for verbal object clitics in certain types of clause in Old Spanish (Nieuwenhuijsen 2002: 370–3). Whether such a tendency existed in Old English is a matter I leave for future research.