

Null Subjects in Old English Interlinear Glossed Psalms

KOBAYASHI Shigeyuki

〔要旨〕

『古英語行間訳語付き詩編』における空主語

空主語現象は生成文法における原理とパラメータ (P&P) 理論における重要な概念の一つであった言語的パラメータの典型的な一例であったため、多くの研究者が理論的な関心によって精力を集中してきた。しかしながら、極小主義が生成文法の主流になるにつれて、言語的パラメータの概念は再考されてきた。

当論文は Biberauer (2018) の P&P 理論におけるパラメータの生得性を廃棄し、極小主義における第三要因を採用するための大きな変化を伴ったパラメータ概念の維持に関する諸概念を概観する。しかしながら、古英語における空主語を十分に説明するためのデータは必要となる。Walkden (2016) はまた古英語における方言的変異説を提案している。古英語における空主語へのこれらの研究のような措置にもかかわらず、Rusten (2019) は広範囲の統計的なデータに基づいて、古英語における空主語の位置づけを否定的に論じている。

当論文は、『古英語詩編』における1、2人称代名詞と3人称代名詞の間の空主語の違いを指摘し、それは、Gelderen (2011) の理論における代名詞の統語的素性によって説明できることを論じる。そして、統計学は空主語の要因を特定する有用なツールであるが、空主語現象の理由を説明できるものではなく、空主語現象はなおも言語理論によって探索されるべきトピックであると結論する。

1 Linguistic Universality and the Parametric View of language Variants

The concept of linguistic universality should be applied not only to

generative grammar, but to other linguistic theories as well. Roberts (2017) insists upon the most fundamental concept of theoretical studies of historical linguistics, quoting Croft (2003: 233): ‘The languages of the past—at least, those we can reconstruct or find records of—are not different in nature from those of the present.’

Roberts (2017) claims that, ‘it entails that the patterns of language change that we can observe in the attested record are the same as those that must have operated at periods for which we have no records’. This concept can be applied to the analysis of early Old English, which allowed null subjects. Dialectal variations can be observed in contemporary languages, which are exposed to language standardisation. Linguistic variants have been attributed to linguistic parameters within the frame of generative grammar, which has been reconsidered because the minimalist programme explores the third factors (Chomsky 2005).

2 Null Subjects Parameter

2.1 The Classic View of Null Subjects Parameter

A few languages allow the null subject, which implies an unrepresented subject. In the Principles and Parameters Theory—the previous version of generative grammar—this linguistic variant was formulated as null-subject parameter by Rizzi’s (1982) pioneer work; examples include:

- | | | | |
|-----|----|------------------|-----------|
| (2) | a. | Parla italiano. | (Italian) |
| | b. | *Speaks English. | (English) |
| (3) | a. | Habla español. | (Spanish) |
| | b. | Mila ellinika. | (Greek) |
| | c. | *Parle français. | (French) |

(Roberts 2007: 25, (9), (10))

The definition of the null-subject parameter is informally formulated as follows:

(4) The Null Subject Parameter

Does T bear a D-feature?

(Roberts and Holmberg 2010: 14, (17))

This definition implies that if the D-features exists in T, then T does not have to attract subject DP by EPP.

Although Roberts and Holmberg (2010) represent a refined version of the original null subject parameter, this view is becoming outdated within the framework of the minimalist programme. Cognola and Casalicchio (eds.) (2018) feature the null-subject phenomenon from the viewpoint of the minimalist theory; Biberauer (2018) represents such a view as follows:

The failings of the ‘classic’ null-subject parameter are by now well known . . . , and the increase in our access to and understanding of the empirical facts has led many researchers to conclude not only that pro-drop is not a unified phenomenon, but also, that it is not in any meaningful sense ‘parametric’ (see Duguine 2014 for recent argumentation in favour of this conclusion).

(Cognola and Cassalicchio (eds.) 2018: 94)

Many linguists opine that the classic view of the null-subject parameter should be refined to attain a more significant goal for the linguistic theory.

2.2 Re-formularisation of the Linguistic Parameters from the Perspective of Emergentist

The Classic Parameter Theory cannot hold, given the shift from the Principles and Parameters Theory to the Minimalist Theory (Chomsky 1995). Many observations of the null-subject phenomena among different languages do not have a simple binary explanation, as the null-subject parameter cited in the previous section. Linguistic variations explained by parameters had to be reformed to fit into the Minimalist Theory, taking in the emergentist view.

Biberauer (2018) examines the effectiveness of the parametric theory for

language variation as follows:

In reflecting on why one might want to retain a parametric perspective on linguistic variation, it is worth considering not just whether GB parameter theory was ‘the right theory’, but also the extent to which it stimulated productive research questions. (Cognola and Cassalicchio (eds.) 2018: 95)

Her attitude toward the parametric theory is methodological in essence, but it is not a principled way of analysing language variation.⁽¹⁾

Biberauer (2018) takes up a discussion about Pintzuk’s (1999) competing model for OE underlying word order VO/OV variation, which is apparently incompatible with the Head Parameter. Pintzuk’s analysis has been adopted by many researchers as a syntactic phenomenon in OE and ME at least, and Biberauer and Roberts (2010) discuss the effects based on the Subset Principle (Berwick 1985; Manzini and Wexler 1987; Clark and Roberts 1993). This theory can be recognised as a solution to reconcile parametric variations with incompatible descriptions, directly avoiding the Parameter Theory.

Biberauer and Roberts (2009) exploit the Subset Principle to incorporate the result of the Principles and Parameters Theory into the diachronic syntax fitted to the three factors that Chomsky (2005) schemed as follows:

UG + PLD + Third factors → steady-state grammar (Chomsky 2005)
(Biberauer 2018: 1)

Biberauer (2018) proposes the Maximise Minimal Means (MMM), scheming it as:

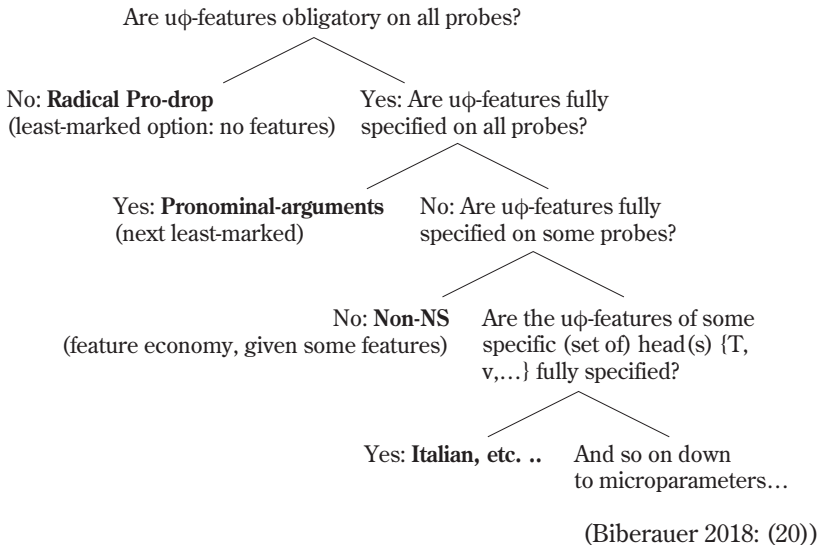
UG + PLD + Maximise Minimal Means (MMM) → steady-state grammar
(Biberauer 2018: 3)

Biberauer redefines Chomsky’s original idea of third factors as follows:

For Chomsky (2005: 6), third factors include general cognitive principles,

such as principles of computational efficiency and principles of data analysis employed in acquisition, including learning biases. [Her] Maximise Minimal Means (MMM) relates both of [third factors].

Biberauer (2018) discusses the difference between the radical pro-drop in East Asian languages and the null subject in Indo-European languages, illustrating the schema below, which was originally proposed by Roberts and Holmberg (2010):



Biberauer (2018) summarises this parametrical scheme regarding the null-subject phenomenon as plausible, as long as it illustrates the relation between ϕ -features on DP and $u\phi$ -features on clausal heads in probe-goal relations. However, as later sections will show, there seem to be many factors regarding the null subject discussed synchronically or diachronically in previous studies.

Biberauer (2018) explains the functioning of the MMM to treat the null subject phenomenon. It cannot be appropriately treated in the above scheme for the parametric view of the null-subject variation, which is called the Aboutness-Topics (the original version by Frascarelli (2007)) as follows:

In the context of an MMM-based approach, we would expect the way in which (aboutness) topicality is formally marked and represented to play a role in determining which pronouns may be null. On the one hand, this relates to the [F](s) employed to mark Aboutness-Topics. MMM would lead us to expect this to be a recycled [F] of some kind, that is, an [F] already in the system, whose original [S]- derived identity might to some extent bleach as a result (Biberauer 2018: 117)

Biberauer (2018) continues the discussion to extend the Aboutness-Topics to radical pro-drop languages, relating it to the feature taking in the concept about speaker hearer as follows:

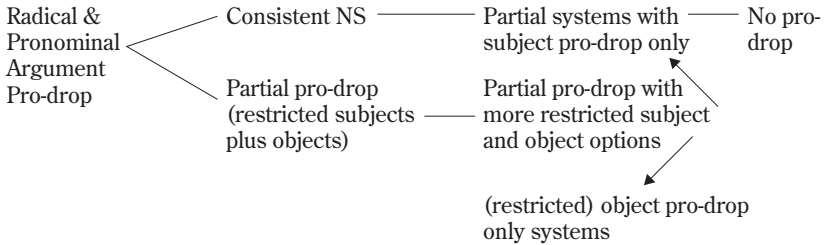
[F]or purposes of exposition that [INDIV] may serve as a recycled topic-marking [F], that is that topics are effectively doubly-individuated (indexical [PART] could serve just as well, and may well be the relevant [F] in radical pro-drop languages, or those in which a range of grammatical devices reflect speaker- and/or hearer - perspective). All topics, then, will bear [INDIV]. On the other hand, aboutness topicality also has left-peripheral implications. (Biberauer 2018: 117)

Additionally, Biberauer (2018) assumes the features in the CP domain to explain the difference about options to activate the Topic in the language as follows:

On the other hand, aboutness topicality also has left-peripheral implications. If (pro-drop) languages, for example, differ as to whether a distinct Aboutness Topic-C is grammatically present or not . . . , we might expect variation as to the availability of pro-drop options: where Aboutness-C is present, person-insensitive pro-drop will be possible, where relevant (e.g. in consistent NS languages) subject to appropriate matching/deletion being possible in the INFL-domain; where it is absent, one might, in the presence of suitably specified INFL, expect the subset of here-and-now (deictic/indexical) topical pronouns to be null as these will still have the possibility

of being identified via the Speaker–Hearer-oriented structure dominating CP. (Biberauer 2018: 117)

Biberauer (2018) illustrates the typology of pro-drop systems from the neo-emergentist approach as follows:⁽²⁾



(Biberauer 2018: (27))

This image provides a general perspective on null-subject variations, and it can be interpreted as a diachronic change scheme among null-subject variations. This will enable addressing the challenge of explaining null-subject variations without exploiting the classic parameters. We have been developing the parametric character of language variations on the basis of many accumulations in the era of the Parameter Theory. The next section discusses the null-subject variation in Old English.

3 Dialectal Variants of Null Subjects in Old English

3.1 Null Subjects in the Northumbria Dialect in Old English

Generally, Old English is not recognised as a null-subject language in the literature on the parametric view. However, Walkden (2016) argues that the Northumbria dialect in OE was a variant of null-subject languages, and advocates for the Old English Dialect Syntax.

Walkden (2016) claims that Northumbria dialect in OE has a discrepancy

between the 1st, 2nd, and 3rd person pronouns. Examples of the former are quite rare, but those of the latter frequently attested (see Table 1).

Rusten (2019) argues against Walkden, suggesting that it cannot be statistically proved that Northumbria dialect in OE is a null-subject language. The result shows the extent of the statistical analysis, which includes a small number of critical examples, with a much larger number of other examples (see Table 2).

Table 1. Pronominal subjects in the Gospel of John, by person and number (Walkden 2016; Table 2)

Person	N	Overt		Null		Total
1	sg.	428	96.8%	14	3.2%	442
	pl.	71	100.0%	0	0.0%	71
2	sg.	161	93.1%	12	6.9%	173
	pl.	226	95.8%	10	4.2%	236
3	sg.	76	18.4%	337	81.6%	413
	pl.	34	19.2%	143	80.8%	177
Totals		996		516		1512

Table 2. Subject pronouns in Old English prose according to dialect (Rusten 2019: 60; Table 3.3)

Dialect	S _{pron}	S _∅	Total	% S _∅
A	16	0	16	0.0%
AX	101	0	101	0.0%
K	183	1	184	0.5%
KX	7	0	7	0.0%
WS	55,665	386	56,051	0.7%
WSA	16,462	296	16,758	1.8%
WSK	310	2	312	0.6%
WSX	2,185	43	2,228	1.9%
Total	74,929	728	75,657	1.0%

Rusten (2019) summarises two opposite claims that argue for and against the null subject in OE in previous studies.⁽³⁾ Table 2 shows that the null subject in OE should be examined in the context of the dialect; this is also suggested by Walkden (2016).

3.2 A few Characteristics and Textual Imbalance of Null Subjects in Old English

We will observe a few characteristics of null subjects in OE and review their dialectal analysis by Walkden (2013).

Given below are a few examples of null subjects (\emptyset) in OE.

- (9) Se halga ða het him bringan sæd. \emptyset wolde on ðam westene
 The saint then ordered to-him bring seed. \emptyset wanted in the wasteland
 wæstmes tilian
 plants grow.
 ‘The saint then ordered the seed to be brought to him. [He] wanted to grow a crop in the wasteland.’
 (*ÆCHom.II.10.86.176*, Fisher, De Smet, and Van der Wurff 2017: 136, (9))
- (10) Nu \emptyset sculon herigeaƿ heofonrices weard
 Now \emptyset must Lord heaven’s praise
 ‘Now [we] must praise the heavenly Lord.’
 (*Caedmon’s Hymn*, Fisher, De Smet, and Van der Wurff 2017: 136)
- (11) Þā ġelamp hit þæt Pyhtas cōmon sūþan of Scythian,
 Then happened it that Picts came from the south from Scythia,
 mid langum scipum, nā manigum. And þā \emptyset cōmon ærest on
 with war ships, not many and when \emptyset came first in
 Norþ-Ibernia ūp, and þær bædon Scottas þæt hīe ðær mōsten wunian.
 North Ireland up and there begged Scots that they there might dwell.
 ‘Then it happened that the Picts came from the south from Scythia, with warships, not many, and [they] first landed in North Ireland, and there begged the Scots that they might dwell there.’

(*The Anglo-Saxon Chronicle* MS E, 1r)⁽⁴⁾

(9) is an example of the aboutness topic (Walkden 2013) and (10) and (11) are recognised as the same type of null subjects.⁽⁵⁾

Walkden (2013) also attributes the null-subject characteristics in the texts exemplified above, as follows:

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.

(Walkden 2013: 163)⁽⁶⁾

Apparently, there is an imbalance of null-subject distribution among OE texts. It would be worth examining this imbalance, although the effort might be hindered by the overwhelming majority of West Saxon prose, which has almost no null-subject occurrence. Walkden's (2013, 2016) dialectal analysis seems like a promising solution for the unevenly distribution of null subjects in OE.

4 Subjects Representation in Old English Interlinear Glossed Psalms

4.1 Data

This study focusses on Old English interlinear psalms—compared by Pulsiano (ed.) (2001)—to investigate the subject representation differences among the manuscripts A to K. The comparison was made among manuscripts A ('Vespasian Psalter'), C ('Cambridge Psalter'), and D ('Regius Psalter') in Psalms 2–10.

Latin original verbs in the Old English Interlinear Psalms are glossed not only Old English but also often, not always added pronouns. The manuscripts differ in terms of representation of subject pronouns in interlinear glosses.

The dates and places of the manuscripts are presented in Table 3.⁽⁷⁾

Table 3. The Dates and Places of Manuscripts A, C, and D

Manuscripts	Dates	Places
A (Vespasian Psalter)	9th c.	Canterbury
C (Cambridge Psalter)	mid 11th c.	Canterbury?
D (Regius Psalter)	10th c.	Winchester

4.2 3rd Person Singular Pronoun

An example of the 3rd person singular pronoun in Psalm 2.5 shows the contrasting representation of subjects among Manuscripts A, C, and D:

(12) Psalm 2.5

Latin: Tunc loquetur ad eos in ira sua

Duay-Rheim: ‘Then shall he speak to them in his anger’

loquetur: spricedð A, sprecedð he C, he spyedð D

The Latin verb *loquetur* (*say, speak*, Ind., Future, sing, 3) is translated into OE *sprecan* (*speak*, prs., sg., 3), as translated into Modern English, ‘(Then) shall he’. While Manuscript A attests the null-subject phenomena in OE, Manuscripts C and D represents the 3rd person pronoun ‘he’.

Suppose that the subject DP is assumed to internally move to the TP Spec position, as generally analysed. Then, the difference of the position of the subject DP can be explained as the EPP feature not applied to Manuscript C, not in Manuscript D.⁽⁸⁾

4.3 2nd Person Plural Pronoun

An example of the 2nd person plural pronoun in Psalm 4.3 shows the overt 2nd person plural pronoun of the subject among Manuscripts A, C, and D, comparing with the example of the 3rd person singular pronoun above.

(13) Psalm 4.3

Latin: ut quid diligitis uanitetem et quaeris mendacium

Duay-Rheim: ‘why do you love vanity, and seek after lying?’

diligitis: luifiað ge AC, lufiað gę D

quaertis: soecað A, secað CD

The first Latin verb *diligitis* (*love*, Ind., Pres., 2) is translated into OE *lufian* (wk. 2. *love*, Pres., Pl), which is followed by the subject pronoun *ge* (*you*) in Manuscripts A, C, and D.⁽⁹⁾ The second one, *quaertis* (*seek*) is translated OE (*ge*)*sēcan* (wk. 1, *seek*, Pres. Pl), which does not accompany the 2nd person plural pronoun—that is, the null-subject example.⁽¹⁰⁾

Overt 2nd person pronouns are usual, as are 1st person pronouns. This is in contrast to the null subjects 3rd person pronouns (*pro*), which are common in OE. We will discuss the discrepancy between 1st and 2nd person pronouns and the 3rd person pronoun (Gelderen 2000, 2011) in a later section.

4.4 3rd Person Plural Pronoun

An example of the 3rd Person Plural Pronoun in Psalm 5.11 shows the contrasting representation of subjects among Manuscripts A, C, and D, as well as Psalm 2.5 discussed above.

(14) Psalm 5.11

Latin: quoniam exacerbauerunt te domine

Duray-Rheim: ‘for they have provoked thee, O Lord’

exacerbauerunt: onscunedo A, hi onscunydon C, hy gremedvn D

The Latin verb *exacerbauerunt* (*irritate*, *provoke*, Ind., Perf., 3, Plu.) is translated into OE *onscunedon* (wk.2, *fear*, pret. Pl.) or *gremian* (wk.2. *provoke*, Pret., Pl.).

Manuscript C, where the verb is followed by the pronoun *he* in Psalm 2.5, may show that the 3rd person plural *hi* changed to the un-interpretive feature faster than *he*, because the referentiality of *hi* is considered to be easier to bleach

than *he*.⁽¹¹⁾

4.5 Diachronic and Dialectal Variants

The variants among the manuscripts on the representation rate of the subject pronoun are presented in Table 4.⁽¹²⁾

Table 4. The Subject Pronoun Representation Rates of the Manuscripts and their Dates and Places

MS	A	B	C	D	E	F	G	H	I	J	K
Sum	74	75	80	96	96	93	83	87	106	84	77
%	51.8	52.5	55.9	68.1	68.6	66.0	60.1	65.9	76.3	58.4	58.8
Date	9th	10th	11th	10th	12th	11th	11th	11th	11th	11th	10th
Place	Can.	Win.	Win./ Can. ⁽¹³⁾	Win.	Can.	SW./ Win.	Win.	Win.	Win.	Win.	Shaftes.

Abbreviations: Can.: Canterbury, Win.: Winchester, SW: South-West England, Shaftes.: Shaftesbury.

The diachronic changes in subject representation are apparent—for example, when comparing Manuscript (Ms.) B and Ms. I, it can be identified which one was created in Winchester. Ms. F and Ms. J have to be explained. In the case of Ms. F, older grammatical characteristics generally remain at the local site, reflected in the low rates of subject representation. In the case of Ms. J, it can be stipulated that the language reflects the written language, which was preserved in the ministry, where it was created.⁽¹⁴⁾

5 Asymmetry between the 1st and 2nd Person Pronouns

Table 5 shows the asymmetric distribution between the 1st and 2nd person pronouns in OE glossed salters.

Table 5. Asymmetry of Subject Pronouns Representation Rates

Pronoun	1				2				3			
	sg		pl		sg		pl		sg		pl	
MS.	SUM	%	SUM	%	SUM	%	SUM	%	SUM	%	SUM	%
A	30	88.2	0	0	32	94.1	3	30	5	10.9	4	21.1
C	30	88.2	0	0	33	97.1	3	30	9	19.6	5	26.3
D	29	85.3	0	0	32	94.1	5	50	19	41.3	11	57.9

The subject pronouns representation rates contrast between the 1st and 2nd person pronouns and the 3rd person pronoun are shown in Table 5.

5.1 The Expectation of the Subject Pronouns Representation from the Morpho-syntactic Perspective

The restriction on null subjects has been assumed in OE grammar. Recently, Rosenkvist (2018) advocated the disagreement agreement (DA) hypothesis as follows:

- (14) Verb agreement is distinct if
- a. a specific verb form (Fa) and a pronoun (P) express the same set of ϕ -features;
 - b. F and P have the same values for ϕ ;
 - c. only Fa matches the values for P.

(Rosenkvist 2018: 303, (30))

This hypothesis itself generally fits into the traditional view of the relation between null subjects and verb morphology. However, when we apply Rosenkvist's (2018) DA hypothesis to OE null subjects, what the hypothesis expects would be problematic; see the OE verb-endings paradigm in Table 6. If this hypothesis holds for OE, it is expected that null subjects would be allowed in the 1st and 2nd person singular pronouns in past-indicative, but not in the 3rd

person pronouns because the latter’s verb-endings are significantly simpler and poorer than those of the former two.

Table 6. OE Personal Verb-endings

<i>present indicative</i>	<i>singular</i>		<i>plural</i>
first person	-e		-aþ
second person	-st		
third person	-þ		
<i>past indicative</i>	<i>weak</i>	<i>strong</i>	
first person	-e	—	-on
second person	-st	-e	
third person	-e	—	
<i>all subjunctives</i>			
all persons	-e		-en

(Baker 2012: 66; Table 7.2, a line is added.)

5.2 Historical Development of the Personal Pronoun Subject’s Feature

Gelderen (2000) argues that 3rd person singular pronouns are fitted to be pro (pro-drop). It can be stipulated that the 3rd person pronouns are more possibly allowed to be dropped than the 1st and 2nd person pronouns, as follows:

In Old English, the occurrence of pro-drop with third person subjects provides evidence that third person features are more specified and that the pronoun can therefore appear as pro. . . . It also appears that singular is perhaps a little more specified than plural since more pro-drop appears (and more reflexives with ‘self’). If ϕ -features of first and second person pronouns are less specified than those of third person ones, one expects a difference in verbal agreement too. (Gelderen 2000: 135–36)

Gelderen (2011) argues that the 1st and 2nd person pronouns swiftly change to obligatory arguments via re-analysis—that is, ‘grammaticalisation’—as follows:

In Old English, the third person pronoun is dropped more often than first or second person pronouns. This means that first and second person pronouns are the first to be re-analysed as obligatory arguments. (Gelderen 2011: 68)

Gelderen’s (2011) theory can explain the discrepancy of morphology and syntax in null subjects in OE better than the morpho-syntactic perspective—for example, Rosenkvist’s (2018) DA. Null subjects in OE require theories exploring morphology to deploy abstract formal features in syntax.

6 Statistical Problems

Walkden (2016) claims that the null subjects attested in the inter-linear glosses in the Lindisfarne Gospels reflect dialectal variants in OE. However, Rusten (2019) argues against Walden, as follows:

[W]hile there are slight differences between dialects as concerns the realisation of pronominal subjects, and while [D]ifferences in subject realisation between West Saxon and non-West Saxon/non-West Saxon-influenced texts are statistically significant for both prose and poetry, the effect size measures presented above also revealed that the association between null subjects and dialect is weak to the point of non existence in both genres. S_0 undeniably is somewhat more frequent in the texts which have non-West Saxon influence, it does not intuitively seem as if diatopic variation is a good candidate for explaining the distribution of Sin OE texts: the phenomenon is very rare in both dialect groups, and the dialect group showing a (minor) preference for null subjects is in itself composed of texts showing predominantly West Saxon features. (Rusten 2019: 62)

Rusten illustrates the distribution of null subjects in the mosaic plot below:

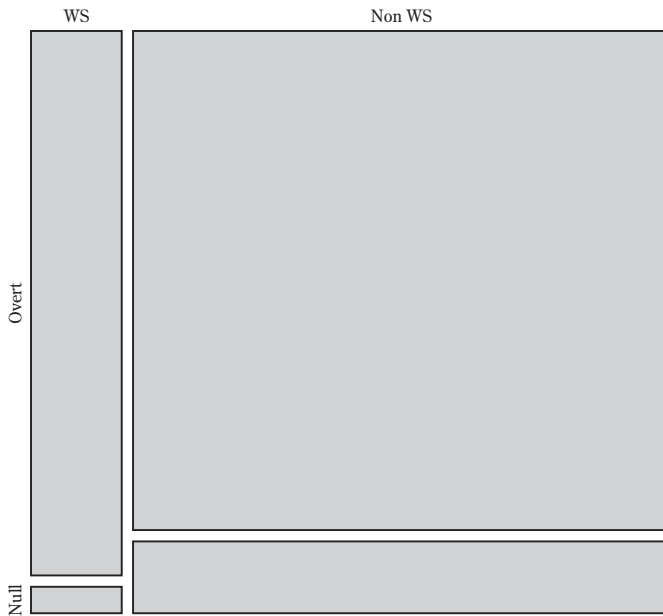


Figure 1. Mosaic plot showing the distribution of overt and null subjects in West Saxon and non-West Saxon/non-West Saxon-influenced texts of Old English poetry (Rusten 2019: 67, Figure 3.4)

Additionally, Rusten (2019: 65) claims that the differences in the occurrences of null subjects among the texts can be attributed more to genres—that is, prose or poetry—than to dialects:

[D]ifferences in subject realisation between West Saxon and non-West Saxon/non-West Saxon-influenced texts are statistically significant for both prose and poetry, the effect size measures presented above also revealed that the association between null subjects and dialect is weak to the point of non-existence in both genres

Rusten (2019) shows the difference among null subjects according to

genres in the mosaic plot below:

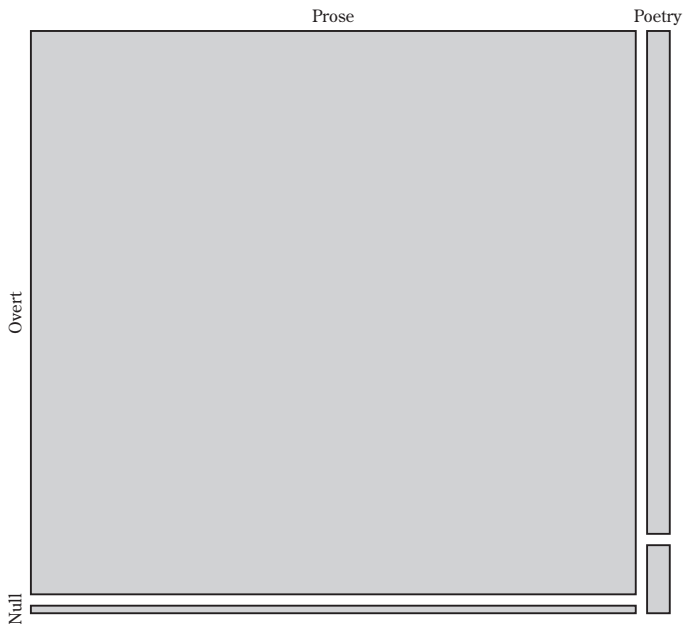


Figure 2: Mosaic plot showing the distribution of overt and null subjects in West Saxon and non-West Saxon/non-West Saxon-influenced texts of Old English prose and poetry (Rusten 2019: 66, Figure 3.5)

Rusten (2019) discusses negatively about the problem which Walkden (2016) proposed for as dialectal study of Old English syntax. From the sociolinguistic perspective, which defines human language as the measure of linguistic communication, we would accept the results of Rusten’s (2019) statistical investigation. The aim of statistics is used to make minor variations should be invalid.

However, a different assumption is that OE had allowed null subjects, but they rarely occurred. The problem to explain the coexisting of non-null subject and null subject or partial null subject has been leaved. We need not reject the non-null subject options in OE—rather, we should seek theories to address the situation.

7 Conclusion

Regarding the discussions about null subjects in OE, Rusten's (2019) claim regarding the statistical perspective is quite reliable and significant—even though it rejects studies that state that OE grammar allows null subject without sporadic conditions. However, statistics generally illustrates factors for the objects; they do not explain the causes, which should be explored via theories. Thus, it is imperative to rethink the discussion from the perspective of comparative syntax and to explore theories to clarify null subjects in OE within the minimalist framework.

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Notes

- (1) Biberauer (2018) considers the Final-over-Final Condition as the opposition against the Head Parameter as follows:

FOFC, for example, stands out as a seemingly universal constraint on the ordering of heads, the strangeness of which is particularly apparent if one considers the possibilities that should be made available by the classic Head Parameter (cf. i.a. Biberauer et al. 2014; Sheehan et al. 2017; Biberauer 2017a, 2017b).

- (2) Biberauer refers to Babroša (2013) in relation to this idea.
- (3) Rusten (2019: 8) reviews as follows:

Even more strongly, van Gelderen's (2000: 121) generative study asserts that 'pro-drop is quite common' in OE, and in her more recent work it is argued that OE was 'a genuine pro drop language' with 'Romance-style pro drop' (van Gelderen 2013: 271, 284). Hulk & van Kemenade 1995: 245), on the other hand, stress that the 'phenomenon of referential pro-drop does not occur in OE', and van Kemenade (1987: 396) says that 'OE allows no referential pro-drop'. Visser (1963: 4) states that 'use of

the subject Pronoun was the rule’, while Mitchell (1985: 633) says that the subject was ‘only spasmodically’ omitted,¹⁶ and that the ‘personal pronoun is normally expressed when it is the subject of a verb’ (p.104). However, he also states that S_0 ‘must be accepted as idiomatic OE’ (p. 633).

- (4) The text is based on Irvine (2004) (ed.). The translation is excerpted from Ichikawa and Matsunami (1986: 88).
- (5) This analysis is based on Holmberg (2010a), which follows Frascarelli’s (2007) analysis of Italian.
- (6) Walkden (2013), following Fulk (2009: 96), indicates that Manuscripts C, D, and E of the Anglo-Saxon Chronicle exemplify the null-subject characteristics to a certain extent.
- (7) The data are excerpted from Pulsiano (ed.) 2001: xxix-iv.
- (8) Walkden (2016) discusses that pronouns followed by verbs in the Lindisfarne Gospels are artifact by the author of inter-linear translations, which is the opposite view to the EPP option analysis.
- (9) A minor spelling difference between *luifiað* and *lufiað* or *soecað* and *secað* is not our concern here.
- (10) Coordinate constructions comprising verb phrases are fitted to the environment where null subjects tend to occur. In this example, there is a slight possibility that the coordinated verb phrase might be a null-topic construction (See Gelderen 2000:133).
- (11) Gelderen (2000: 135, 2011: 68) argues that the ϕ -features of pronouns in OE changed from un-interpretive to interpretive.
- (12) The dates and places are cited from Pulsiano (ed.) (2001). The numbers of century dates in Table 4 are rounded-off based on the original data.
- (13) According to the rate of subject pronoun representation, which is relatively low, Ms. C was, more probably, created at Canterbury than at Winchester.
- (14) Rusten (2019: 51) states: ‘[a]ny investigation on OE, specifically must by necessity be based on the stylistically formal written language output of trained professionals . . . It can reasonably be assumed that the data at hand in the best of cases are removed at some distance from the characteristics of everyday spoken OE’.

References

- Baker, Peter S. (2012). *Introduction to Old English*. Third Edition. Malden,USA/Oxford, UK: Wiley-Blackwell.

- Babrosa, Pilar (2013). 'Pro as a minimal NP: Towards a unified approach to pro-drop', Under review (<http://ling.auf.net/lingbuzz/001949>).
- Berwick, Robert (1985). *The Acquisition of Syntactic Knowledge*. Cambridge, MA: MIT Press.
- Biberauer, Theresa et al. (2014). 'A syntactic universal and its consequences', *Linguistic Inquiry* 45(2): 169–225.
- Biberauer, Theresa (2017a). 'Particles and the Final-over-Final Condition'. In Michelle Sheehan, Theresa Biberauer, Ian Roberts, and Anders Holmberg (eds.), *The Final-over-Final Condition. A Syntactic Universal*. Cambridge, MA: MIT Press.
- Biberauer, Theresa (2017b). 'Word-order variation and change in systems that maximize minimal means'. Paper presented at the Variation and Change in the Verb Phrase Workshop (Oslo).
- Biberauer, Theresa (2018). Pro-drop and emergent parameter hierarchies. In Federica Cognola and Jan Casalicchio (eds.), 94–135.
- Biberauer, Theresa and Ian Roberts (2010). 'Subjects, Tense and verb movement'. In Theresa Biberauer, Anders Holmberg, Ian Roberts, and Michelle Sheehan (eds.), *Parametric Variation: Null Subjects in Minimalist Theory*, 263–. Cambridge: Cambridge University Press.
- Chomsky, Noam (1995). *The Minimalist Program*. Cambridge, MA: MIT Press.
- Chomsky, Noam (2005). Three factors in language design. *Linguistic Inquiry* 36: 1–22.
- Chomsky, Noam (2013). Problems of projection. *Lingua* 130: 33–49.
- Clark, Robin and Ian Roberts (1993). 'A computational model of language learnability and language change,' *Linguistic Inquiry* 24: 299–345.
- Cognola, Federica and Jan Cassalicchio (eds.) (2018). *Null Subjects in Generative Grammar: A Synchronic and Diachronic Perspective*. New York: Oxford University Press.
- Croft, William (2003). *Typology and Universals*, 2nd ed. Cambridge: Cambridge University Press.
- Fisher, Olga, Hendrik De Smet, and Wim van der Wurff (2017). *A Brief History of English Syntax*. Cambridge: Cambridge University Press.
- Frascarelli, Mara (2007). 'Subjects, topics and the interpretation of referential pro: an interface approach to the linking of (null) pronouns'. *Natural Language and Linguistic Theory* 25: 691–734.
- Gelderen, Elly van (2000). *A History of English Reflexive Pronouns*. Amsterdam: John Benjamins.
- Gelderen, Elly van (2004). *Grammaticalization as Economy*. Amsterdam: John Benjamins.
- Gelderen, Elly van (2011). *The Linguistic Cycle: Language Change and the Language Faculty*. New York: Oxford Press.
- Gelderen, Elly van (2013) 'Null Subjects in Old English', *Linguistic Inquiry* 44(2): 274–85.

- Holmberg, Anders (2010). 'Null subject parameters'. In Theresa Biberauer, Anders Holmberg, Ian Roberts, and Michelle Sheehan (eds.), *Parametric variation: Null Subjects in Minimalist Theory*, 88–124. Cambridge: Cambridge University Press.
- Hulk, Aafke, and Ans van Kemenade (1995). 'Verb Second, Pro-Drop, Functional Projections and Language Change'. In Adrian Battye and Ian Roberts (eds.), *Clause Structure and Language Change*, 227–56. New York: Oxford University Press.
- Ichikawa, Sanki and Tamotsu Matsunami (1986). *Koeigo Chueigo Shoho*. Tokyo: Kenkyusha.
- Irvine, Susan (2004). *The Anglo-Saxon Chronicle: MS E (7) Ds* Brewer.
- Kemenade, Ans van (1987). *Syntactic Case and Morphological Case in the History of English*. Dordrecht: Foris.
- Manzini, Maria Rita, and Ken and Wexler (1987). 'Binding Theory, Parameters, and Learnability', *Linguistic Inquiry* 18: 413–44.
- Mitchell, Bruce (1985). *Old English Syntax*. Oxford: Clarendon Press.
- Pintzuk, Susan (1999). *Phrase structures in competition: Variation and change in Old English word order*. New York: Garland.
- Pulsiano, Phillip (ed.) (2001). *Old English Glossed Psalters: Psalms 1–50*. Toronto: University of Toronto Press.
- Rizzi, Luigi (1982). *Issues in Italian Syntax*. Dordrecht: Foris.
- Roberts, Ian (2007). *Diachronic Syntax*. Oxford: Oxford University Press.
- Roberts, Ian (2017). 'Uniformitarianism'. In Adam Ledgeway and Ian Roberts (eds.), *The Cambridge Handbook of Historical Syntax*, 338–59. Cambridge: Cambridge University Press.
- Roberts, Ian and Andes Holmberg (2010). Introduction: Parameters in Minimalist Theory. In Theresa Biberauer, Anders Holmberg, Ian Roberts, and Michelle Sheehan (eds.), *Parametric variation: Null Subjects in Minimalist Theory*, 1–57. Cambridge: Cambridge University Press.
- Rusten, Kristian A. (2019). *Referential Null Subjects in Early English*. Oxford: Oxford University Press.
- Rosenkvist, Henrik (2018). 'Null subjects and Distinct Agreement in Modern Germanic'. In Federica Cognola and Jan Cassalicchio (eds.), 285–306. New York: Oxford University Press.
- Saito, Mamoru (2007). 'Notes on East Asian argument ellipsis'. *Language Research* 43: 203–27.
- Saito, Mamoru (2016). '(A) Case for labelling: Labelling in languages without phi-feature agreement'. *The Linguistic Review* 33: 129–17.
- Sheehan, Michelle, Theresa Biberauer, Ian Roberts, and Anders Holmberg (2017). *The Final-over-Final Condition*. Cambridge, MA: MIT Press.
- Visser, Frederik Th. (1963) *An historical syntax of the English language*, vol. 1: *Syntactical*

units with one verb, Leiden: E. J. Brill.

Walkden, George (2013). 'Null subjects in Old English'. *Language Variation and Change* 25: 155–78.

Walkden, George (2016). Null subjects in the Lindisfarne Gospels as evidence for syntactic variation in Old English. In Julia Fernández Cuesta & Sara M. Pons-Sanz (eds.), *The Old English Gloss to the Lindisfarne Gospels: language, author and context*, 239–56. Berlin: de Gruyter.