Null subjects and null D: historical evidence from Germanic

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DiGS XVIII, Ghent, 29th June 2016
Talk outline

- Empirical background: early Germanic languages as partial null argument languages
- Theoretical background: the relation between null arguments and null or absent D
- Evaluating the theory on the basis of Germanic data (historical English and Icelandic)
Theme

• Using syntactic theory to gain insight into historically-attested languages, but also...

• the use of historically attested languages to test syntactic theories.
  • Minimally different systems, temporally adjacent (cf. dialect syntax and work on microsyntactic variation)

• Relates to big question in syntactic theory: what categories are there, and how universal?
Null arguments in Germanic

- In previous work (Walkden 2014: ch. 5), I've made the case for the early Northwest Germanic languages as *partial* null argument languages in the sense of Holmberg & Roberts (2010).

- Summarizes, incorporates and builds on a lot of earlier work (esp. Rosenkvist 2009).

- No Gothic today due to differences (but see e.g. Fertig 2000, Ferraresi 2005, Walkden 2014: 158–164).
Northwest Germanic

- The patterns reported here are characteristic of a range of early Germanic varieties (basically):
  - Old High German (OHG; Axel 2005, 2007; Axel & Weiß 2011)
  - Old Icelandic (OI; Hjartardóttir 1987; Sigurðsson 1993; Kinn, Rusten & Walkden 2016)
  - Old Norwegian (ON; Kinn 2015)
  - Old Saxon (OS; Walkden 2014: 190–195)
  - Old Swedish (OSw; Håkansson 2008, 2013)
Examples

1) þonne bið on hreþre under helm drepen biteran stræ le
   then is in heart under helm hit bitter dart
   ‘Then he is hit in the heart, under the helmet, by the bitter dart’
   (OE; cobeowul,54.1745.1443; van Gelderen 2000)

2) Sume hahet in cruci
   some-ACC hang-2PL to cross
   ‘Some of them you will crucify’ (OHG; Monsee Fragments XVIII.17;
   Matthew 23:34; Axel 2007: 293)

3) þá skar Rognvaldr hár hans, en áðr var úskorít
   then cut R. hair his but before was uncut
   ‘Then Rognvaldr cut his hair, but it had been uncut before’
   (OI; Nygaard 1906: 10)
Examples

4) þa var hanum sact
   then was him told
   ‘Then it was told to him.’
   (ON; OSHL, 21774; Kinn 2015)

5) lîbes uueldi ina bilôsien, of he mahti gilêstien sô
   life.GEN would him take if he could achieve so
   ‘he would take his life if he could’
   (OS; Heliand 1442; Walkden 2014: 192)

6) þar gierþi kirchiu aþra
   there made church other
   ‘There he built another church.’
   (OSw; Håkansson 2013: 156)
Null subjects in embedded/subordinate clauses are rare (though they do occur).

- This can't be due to licensing by the verb in C à la Adams 1987.
- It also can't be topic drop as in modern Germanic.

Null subjects are much more frequent in the third person than in the first or second person.

- Not an absolute effect – but statistically significant in chi-square tests in all of the early Northwest Germanic languages.

Explanation not likely to be solely Latin or metre.
Rich agreement?

- Traditional account following Apollonius Dyscolus (~200 AD) and Taraldsen (1978) attributes null subjects to rich agreement (in languages like Italian, Greek...).

- But this can’t account for the early Northwest Germanic facts.
  - Agreement is just too weak (syncretisms).
  - Differences between texts/dialects/lgs. not explained.
  - Predicts differences between sg. and pl. in OE & OS.
  - Null objects not explained.
Rich agreement?

OS, weak verb *nerian* ‘to save’:

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>sg 1</td>
<td>nēri-u</td>
<td>nēri-d-a</td>
<td>nēri-e</td>
<td>nēri-d-i</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>nēri-s</td>
<td>nēri-d-es</td>
<td>nēri-es</td>
<td>nēri-d-is</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>nēri-ēd</td>
<td>nēri-d-a</td>
<td>nēri-e</td>
<td>nēri-d-i</td>
<td></td>
</tr>
<tr>
<td>pl 1/2/3</td>
<td>nēri-ad</td>
<td>nēri-d-un</td>
<td>nēri-en</td>
<td>nēri-d-in</td>
<td></td>
</tr>
</tbody>
</table>
Analysis

- In Walkden (2014) I argued that these were partial null argument languages.
  - Hebrew, Finnish, Marathi: person split
- Barbosa (2011, 2013): partial null argument languages are a subtype of radical (East-Asian-type, “discourse-driven”) null argument languages.
  - Both permit null generic inclusives
  - Both exhibit locality effects in interpretation
  - No obviation effects
  - Null objects can be found
Null generic inclusives

7) Ah John waa hai Jinggwok jiu gong Jingman
   PRT John say in England need speak English
   ‘John says that one/he needs to speak English in England.’
   (Cantonese; Barbosa 2013: 11)

8) Oppilas tietää ettei tehtävää pysty ratkaisemaan
    student knows that-NEG assignment can solve
    ‘The student knows that the assignment can’t be solved.’
    (Finnish; Barbosa 2013: 5)

9) þonne þurh muð bitere hr cð oþþe bealcet
    when through mouth bitterly retches or belches
    ‘when one retches or belches bitterly through the mouth’
    (OE; colaece,Lch_II_[2]:15.1.1.2296; Walkden 2014: 215)
Lack of obviation

10) Zhangsan_i shuo ta_i/j hui lai
   Zhangsan say he can come
   ‘Zhangsan said that he can come.’
   (Mandarin; Huang 1982: 331)

11) Ram_i mhanala ki tyani_i ghar ghetla
    Ram say-PST.3SM that he house buy-PST.3SN
    ‘Ram said that he bought a house’.
    (Marathi; Holmberg & Sheehan 2010: 131)

12) Thô he_i thanan scolda ... sôkien lioht ôďar,
    when he thence should.3SG seek.INF light other
    thô he_i im iungron hêt gangan nâhor
    then he REFL disciples commanded.3SG go.INF nearer
    ‘When he was about to die, he told his disciples to gather round’
    (OS; Heliand 576–579; Walkden 2014: 201)
Null objects

13) Ta kanjian le
    he see ASP
‘He saw him.’
(Mandarin; Huang 1984: 533)

14) Lo, ima šeli sarga
    no mother my knit
‘No, my mother knitted them.’
(Hebrew; Taube 2012: 319)

15) sa baugr skyldi vera hverjum hofuðsbani, er átti
    the ring should be anyone.DAT headbane that had
‘the ring would bring death to anyone who possessed it’
(OI; Sigurðsson 1993)
The early Northwest Germanic languages had null arguments.

They don't seem to be Italian-type consistent/canonical null argument languages.

They behave – as far as can be established – like (Chinese-type) radical null argument languages.
In GB/Minimalist syntactic theory, it is often held that nominal phrases are headed by a functional category D (Szabolcsi 1983, Abney 1987).

How universal is this?
- Longobardi (1994): all arguments are DPs
D-lessness in early Germanic

- Early Germanic languages are good candidates for languages without D.
  - No requirement for overt article
  - Possessor & demonstrative may co-occur
  - Flexible word order inside nominals
- Old Norse: Lander & Haegeman (2014)
Old English

16) Gecyste ba cyning ... ðegn betstan
kissed then king ... warrior best
‘The king ... then kissed the best warrior’
No articles (Beowulf 1870; Sommerer 2011: 194)

17) His ba æfestan tungan
his that.NOM.PL pious tongue.F.PL
‘that pious tongue of his’
Possessive & demonstrative (Bede 342.17; Wood 2007: 177)

18) on wlanca þam wicge
on splendid that.DAT horse.DAT
‘on that splendid horse’
Adjective precedes demonstrative (Maldon 240; Wood 2007: 172)
Old Icelandic

16) jarl var vinsæll við búendr
   earl was friendly with farmers
   ‘The earl was popular among the farmers.’
   No articles (Lander & Haegeman 2014: 288)

17) hinn yngsta son þinn
    the/that youngest son your
    ‘your youngest son’
    Possessive & demonstrative (Lander & Haegeman 2014: 291)

18) maðr sá blindi
    man the/that blind
    ‘the blind man’
    Noun-demonstrative-adjective (Lander & Haegeman 2014: 295)
Bošković (2010): radical argument drop is possible only in NP languages.

- Follows from proposed requirement that the number feature of D be overtly spelled out.
  - (Necessarily holds only in DP languages.)
- Proposal: NP languages also lack TP.
  - If so, there can be no English-style EPP requirement in such languages.
Barbosa (2013), following Tomioka (2003):

- Key factor in radical argument drop is independent availability of bare NP arguments.
  - Null NP universally available
  - Pronouns are Ds (Postal 1969)
  - Requirement to spell out D will result in requirement for pronouns

- Not crucially linked to lack of D as category – but it must be phonologically null
Predictions for diachrony

- If the absence of (overt) D is linked to the possibility of radical argument drop, and...
- ...if syntactic change is conceptualized as change in the weighting of 'competing' grammars associated with probabilities (Kroch 1994), then...
- ...where we find a higher proportion of bare definite NPs, we will find a higher proportion of null subjects.
Experiment 1

- For Old English: numbers of bare nouns that are definite and referential.
- Sommerer (2011) manually investigates the first 250 bare nouns in 4 texts.
- I replicated this for *Beowulf*.
Bare referential NPs

- Prediction seems to be borne out (preliminarily):

<table>
<thead>
<tr>
<th>Text</th>
<th>N definite bare common nouns</th>
<th>% definite bare common nouns</th>
<th>N null subjects (Walkden 2013)</th>
<th>% null subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cura Pastoralis</em></td>
<td>11/250</td>
<td>4.4%</td>
<td>10/2575</td>
<td>0.4%</td>
</tr>
<tr>
<td><em>Boethius</em></td>
<td>12/250</td>
<td>4.8%</td>
<td>13/2270</td>
<td>0.6%</td>
</tr>
<tr>
<td><em>Orosius</em></td>
<td>17/250</td>
<td>6.8%</td>
<td>28/1378</td>
<td>2.0%</td>
</tr>
<tr>
<td><em>Bede</em></td>
<td>31/250</td>
<td>12.4%</td>
<td>76/2210</td>
<td>3.4%</td>
</tr>
<tr>
<td><em>Beowulf</em></td>
<td>87/250</td>
<td>34.8%</td>
<td>65/418</td>
<td>15.6%</td>
</tr>
</tbody>
</table>

- Clear correlation: Spearman’s $\rho = 1$, $p<0.0001$. 

Introduction

Germanic

D-lessness

Predictions

Conclusion
Bare referential NPs

- Cura Pastoralis
- Boethius
- Orosius
- Bede
- Beowulf

% bare arguments
% null subjects
Experiment 2

- 'Quick and dirty' method for larger corpora: proportion of noun-containing nominal phrases that are bare nouns.
- Advantage: can be automated.
  - Historical Icelandic: IcePaHC (Wallenberg et al. 2011)
  - Historical English: YCOE, YCOEP, PPCME2, PCMEP
- But yields messy data, as you'll see!
The rise of the article: Icelandic

- Correlation (Spearman's rho = 0.49487, p<0.0001)

- Texts with most bare nouns also have most null subjects (*First Grammatical Treatise, Grey Goose Laws*)

- Both phenomena bounce back
The rise of the article: English

- Correlation (Spearman's rho = 0.28879, p=0.00232)
- Again a “bounce” in both (cf. Walkden & Rusten to appear)
  - Dialectal effect?
- Very high percentages of both: Bald's Leechbook, Beowulf
Conclusion

• In the early Northwest Germanic languages investigated, the rise of obligatory overt D seems to go hand in hand with the loss of null subjects.

• This is just what we'd expect under the accounts of Barbosa (2011, 2013) and Bošković (2010), and would be mysterious otherwise.

• Results still preliminary – more investigation needed!
Thank you for listening!
References (1)


References (2)

References (3)


References (4)


References (5)


References (6)


References (7)


References (8)


- Wallenberg, Joel C., Anton Karl Ingason, Einar Freyr Sigurðsson, and Eiríkur Rögnvaldsson. 2011. *Icelandic Parsed Historical Corpus (IcePaHC)*. Version 0.9.


How rich is rich?

- Rohrbacher (1999: 116): RefNSs are present if ‘in at least one number of one tense of the regular verb paradigms, the person features [1] and [2] are both distinctively marked’
  - ✓ Predicts RefNSs in early NWGmc. ✗ But also in modern German and Icelandic.
- Müller (2005): RefNSs are present unless system-wide syncretisms in verb paradigms exist.
  - ✗ Predicts no RefNSs in early NWGmc (as Müller acknowledges).
- Tamburelli (2006: 443): RefNSs are present if ‘each of the possible feature types [±speaker, ±addressee, ±singular – GW] appears in both a positive and a negative setting within the paradigm’
  - ✓ Predicts RefNSs in early NWGmc and Finnish, and ✓ not in German or Icelandic. ✗ But also in standard French.