

The syntax of preverbal *ge-* in Old English

Prefix Verbs: The Impact of Preposition-like Elements on the Syntax and Semantics of Verbs

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1 Background

1.1 Introduction

Today I'll be talking about the OE prefix *ge-* in its pre-verbal uses.

- *ge-* is quite slippery and has eluded really satisfactory description – let alone analysis – despite getting considerable attention since the 19th century.
- I'm in the middle of a large-scale corpus study of the prefix, trying to get a proper handle on its syntax and semantics in order to develop a better theory.
- Today I will present some intermediate results from the ongoing study and lay out a preliminary analysis that relates it to recent analyses of verbal particles in the modern Germanic languages.

1.2 The challenge

Why OE pre-verbal *ge-* has proven so difficult to characterize:

- It interacts with aspect and aktionsart, argument structure and (lexical) semantics, but it's not clear which of these (if any) defines its primary function.
- It is cognate with German (and Dutch) *ge-*, and at first glance looks similar in its behavior. But a quick comparison shows crucial differences in the details.

The German prefix has two distinct verbal functions:

1. It appears productively on the participle used in the perfect and passive (henceforth the PPP) of all verbs with stress on the first syllable.

(1) 'spielen ~ gespielt 'trinken ~ getrunken ver'spielen ~ verspielt spa'zieren
~ spaziert

2. And it appears non-productively as a derivational prefix, with no consistent semantic contribution:

<i>brauchen</i>	'need, use'	<i>gebrauchen</i>	'use'
<i>fallen</i>	'fall'	<i>gefallen</i>	'please'
<i>hören</i>	'hear'	<i>gehören</i>	'belong to'
<i>denken</i>	'think'	<i>gedenken</i>	'commemorate'
<i>stehen</i>	'stand'	<i>gestehen</i>	'confess'

On a descriptive level, we can characterize this as follows:

- There are two distinct prefixes, one inflectional and the other derivational.
- It is not clear that we have anything to gain from attempting to unify these prefixes synchronically.
- A historical explanation of the homonymy should be sufficient: they represent divergent developments of a single prefix in the prehistory of German.

OE *ge-* also typically shows up on PPPs, e.g. in periphrastic 'perfect' constructions:

- (2) ac hēo hæfde **g**ecoren Crist hyre to brȳdguman
 but she had chosen Christ her to bridegroom
 (coelive,+ALS_[Eugenia]:349.401)

'...but she had chosen Christ as her bridegroom.'

- (3) forðan þe his gebedda **g**efaren wæs of life
 because his bedfellow gone was from life
 (coelive,+ALS_[Maur]:131.1567)

'...because his wife had passed away.'

However, unlike in modern German and Dutch, *ge-* is not an integral part of the PPP.

- ☞ A significant proportion of PPPs lack the *ge-* prefix, even though the verb is morphologically compatible with it, as in 4

- (4) sē gelēaffulla Oswald, Norðhymbra cyning wæs \emptyset -cumen to Cynegylse
 the faithful Oswald, Northumbrians' kind was come to Cynegils
 (coelive,+ALS_[Oswald]:131.5455)

'... the faithful Oswald, the king of the Northumbrians, had come to Cynegils.'

Furthermore, *ge-* is found with rather high frequency on other verb forms beyond the PPP, e.g. on the finite past form in 5:

- (5) Sē **g**eworhte ealle þing (coelive,+ALS_[Christmas]:66.51)
 he created all things
 'He created all things.'

- ☞ Crucially, the appearance of *ge-* in examples like this does **not** look like the derivational use of *ge-* in German verbs like *gefallen*.
- ☞ As we will see, it is far too frequent, too widespread across lexical verbs, and there are signs that it is too regular in its semantic contribution.

1.3 Prior approaches

ge- is meaningless

“*Ge-* apud Saxones semper fere superfluum” –Thomas Benson, *Vocabularium Anglo-Saxonicum* (1701)

ge- is a perfective marker

- This is the most popular traditional idea for the older Germanic languages, associated with Wilhelm Streitberg (1891, etc.).
- Subsequently developed to be less dependent on questionable comparisons with Slavic, e.g. by Eythórsson (1995).

ge- expresses abstract direction

- According to Lindemann (1970), *ge-* means that “the action expressed by any verb to which it is prefixed is directed toward some thing or in a direction forward and outward” [p. 37].

ge- expresses resultativity

- Proposed e.g. by van Kemenade and Los (2003) for various stages of Dutch and English.
- This connects to analyses of verbal particles in some of the modern languages (see e.g. Ramchand and Svenonius 2002, McIntyre 2003)

2 Results

2.1 The broad patterns

ge- is quite common:

- Out of a total of 166,544 clauses examined, 42,366 (25.4%) had *ge-* on their main verb.
- Even setting aside PPPs, 30,862 of 153,622 main verbs (20.1%) had *ge-*.

We find some basic confirmation of previous claims:

- We tend to find *ge-* favored in environments suggestive of perfectivity and/or telicity, and disfavored elsewhere.

2.2 The form of the main verb

Lots of variation, with all forms clearly and productively alternating between *ge-* and no *ge-*, yet with big differences in level of preference:

form	ge-	no	% ge-
Pres. Ptc.	107	1493	6.7
<i>to</i> Infin.	430	2177	16.5
Finite	23723	102434	18.8
Bare Infin.	4329	11188	27.9
Imperative	2273	5468	29.4
PPP	11504	1418	89.0

- *ge-* is extremely frequent with PPPs, as expected, but nowhere near categorical.
- Extremely infrequent with present participles, but again nowhere near categorically absent.

2.3 The identity of the main verb

This is the area where the most interesting results are to be found.

- ☞ I wrote my queries to recognize 31 lexical verbs based on their forms, in addition to ‘have’, ‘be’ and the pre-modals, which are annotated in the corpus.
- ☞ This successfully identified 53,877 forms as belonging to specific lexical verbs as indicated in the tables below.
- ☞ The remaining 74,898 verb forms are listed below as ‘unclassified’.

First an overview of the variation:

Verb	Gloss	ge-	no	% ge-
(pre-)modals		0	2575	0.0
<i>bēon/wesan</i>	‘be’	1	30127	0.0
<i>habban</i>	‘have’	13	5053	0.3
<i>cuman</i>	‘come’	29	4687	0.6
<i>sendan</i>	‘send’	15	947	1.6
<i>drincan</i>	‘drink’	17	779	2.1
<i>etan</i>	‘eat’	26	538	4.6
<i>fēran</i>	‘go’	64	1282	4.8
<i>beodan</i>	‘command’	58	1001	5.5
<i>cwedan</i>	‘say’	553	9145	5.7
<i>gān</i>	‘go’	128	1927	6.2
<i>secgan</i>	‘say’	288	3783	7.1
<i>sprecan</i>	‘speak’	90	1134	7.4
<i>andwyrdan</i>	‘answer’	37	457	7.5
<i>sellan</i>	‘give’	362	2182	14.2
<i>wunian</i>	‘dwell’	202	1093	15.6
<i>writan</i>	‘write’	30	158	16.0

continued...

Verb	Gloss	ge-	no	% ge-
<i>sittan</i>	'sit'	131	649	16.8
<i>seoþan</i>	'boil'	3	14	17.6
<i>fōn</i>	'grasp'	159	728	17.9
<i>hatan</i>	'call/order'	560	2309	19.5
<i>dōn</i>	'do'	933	3681	20.2
<i>slēan</i>	'smite'	87	325	21.1
<i>faran</i>	'go'	241	772	23.8
<i>acsian</i>	'ask'	156	486	24.3
<i>nemnan</i>	'name'	217	601	26.5
<i>þencan</i>	'think'	328	777	29.7
<i>wyrcan</i>	'work, make'	523	1227	29.9
<i>weorthan</i>	'become/be'	500	977	33.9
unclassified		31386	43512	41.9
<i>tēon</i>	'pull'	89	119	42.8
<i>niman</i>	'take'	1431	1265	53.1
<i>halgian</i>	'hallow'	392	108	78.4
<i>hælan</i>	'heal'	626	110	85.1
<i>sēon</i>	'see'	2714	188	93.5

Now let's take that in a few smaller chunks.

- In the each of the following tables I will include the 'general total', i.e. overall frequency across verbs, for comparison.
- First the 'auxiliary' verbs when appearing in their main uses:

Verb	Gloss	ge-	no	% ge-
(pre-)modals		0	2575	0.0
<i>bēon/wesan</i>	'be'	1	30127	0.0
<i>habban</i>	'have'	13	5053	0.3
general total		42366	124178	25.4

- ☞ The extremely low frequencies here are as expected, since these are all (almost exclusively) statives.

Turning to the lexical verbs, here are the ones with markedly low frequency of *ge-*:

Verb	Gloss	ge-	no	% ge-
<i>cuman</i>	'come'	29	4687	0.6
<i>sendan</i>	'send'	15	947	1.6
<i>drincan</i>	'drink'	17	779	2.1
<i>etan</i>	'eat'	26	538	4.6
<i>fēran</i>	'go'	64	1282	4.8
<i>beodan</i>	'command'	58	1001	5.5
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<i>gān</i>	'go'	128	1927	6.2
<i>secgan</i>	'say'	288	3783	7.1
<i>sprecan</i>	'speak'	90	1134	7.4
<i>andwyrðan</i>	'answer'	37	457	7.5
general total		42366	124178	25.4

Some of these are relatively easy to understand:

- That row of speech verbs e.g., makes sense if these are essentially activities.
- The two 'go' verbs are plausibly also activities, though it will depend here quite a bit on the details of individual contexts.

Initially unexpected are *sendan*, *drincan* and *etan*, since we would expect these, especially the latter two, to be telic in most cases.

- ☞ With *sendan*, the story seems to be that other prefixes – *a-* and *on-* – are used in telic contexts rather than *ge-*.
- ☞ As for *etan* and *drincan*, note for now that they are verbs of consumption. We'll come back to them later.

The big surprise is with *cuman*:

- ☞ Verbs meaning 'come' are typically highly telic – unlike verbs meaning 'go', they include an inherent telos (the speaker).
- ☞ Hence we would expect *cuman* to be used primarily in perfective and resultative contexts.
- ☞ These are places where *ge* would be expected under essentially most accounts that have been proposed.

Now on to the verbs with markedly high frequency of *ge-*:

Verb	Gloss	ge-	no	% ge-
<i>tēon</i>	'pull'	89	119	42.8
<i>niman</i>	'take'	1431	1265	53.1
<i>halgian</i>	'hallow'	392	108	78.4
<i>hālan</i>	'heal'	626	110	85.1
<i>sēon</i>	'see'	2714	188	93.5
general total		42366	124178	25.4

Again, we have both the expected and the unexpected:

- ☞ *niman*, *halgian* and *hāelan* are highly telic achievement verbs, so we very much expect them to appear frequently with *ge-*.
- ☞ The huge preference for *ge-* with *seon* is, however, somewhat unexpected, since we would expect it to be an activity verb.

2.4 Interactions with auxiliaries

Let's start with a comparison of all auxiliaries as well as the possibility of no auxiliary:

Aux.	ge-	no	% ge-
none	27853	113588	19.7
(pre-)modal	3374	7441	31.2
BE	9764	2494	79.7
HAVE	965	43	95.7

- ☞ So HAVE and BE show a strong favoring effect on *ge-*, at first glance clearly stronger for the former than the latter.

There's still quite a bit to unpack here, though:

- ☞ First of all, while auxiliary *have* essentially only shows up in the perfect, *be* is also used in the passive and the OE ancestor of the progressive.

If we restrict our attention to just the perfects, we get this:

	ge-	no	% ge-
BE	868	96	90
HAVE	125	4	97

- ☞ We see that appearance of *ge-* is steadily approaching categorical as we narrow down our scrutiny to unambiguous perfects.
- ☞ But again, it looks like the preference is clearly stronger with HAVE than with BE.

It turns out, however, that the difference is spurious, and comes entirely from interaction with lexical effects:

- ☞ It turns out that 86 of the 96 examples of perfects with BE, where the PPP lacks *ge-* are with *cuman*.
- ☞ Recall that – for reasons that remain unclear – *cuman* staunchly resists prefixation with *ge-*.

- ☞ Crucially, *cuman* **only** appears with auxiliary BE in OE (McFadden and Alexiadou 2010).

If we remove the examples with *cuman* from consideration, we get the following:

	ge-	no	% ge-
BE	861	10	99
HAVE	125	4	97

- ☞ The difference between HAVE and BE is thus gone, and aside from the verb *cuman*, *ge-* is essentially categorical with both.

Consider what this means for our analysis of *ge-*:

- ☞ Since its distribution is so categorical once we carefully distinguish contexts, it is plausible to think that it realizes a single, specific category, rather than being variably sensitive to multiple factors.
- ☞ Furthermore, this specific category cannot be one that distinguishes HAVE and BE perfects in OE.
- ☞ It must be something that all OE perfects have in common, which is also variably present in non-perfect clauses as well.

3 An analysis and some explanations

The facts from the perfect lead me to propose that *ge-* has to do with resultativity:

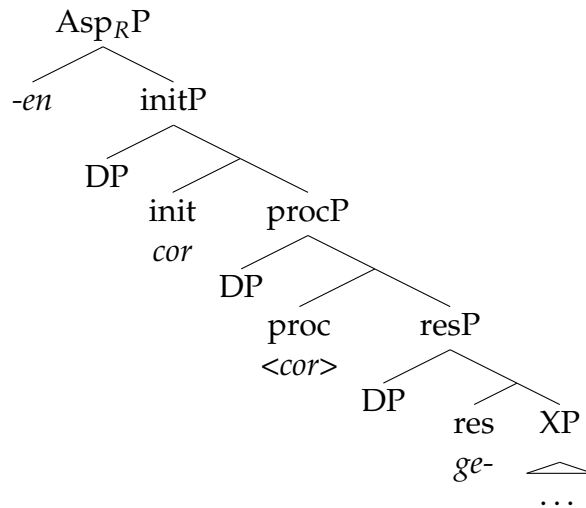
- It is well known that the ‘perfect’ constructions in OE were essentially restricted to resultative interpretations – the experiential reading, e.g., was not yet available.
- If *ge-* marks the presence of a result, we can explain why it is nearly obligatory in the perfect.

For the specifics of my proposal, I will adopt Ramchand (2008)’s system of verbal decomposition.

- Specifically, I propose that *ge-* is the unmarked instantiation of the res head.
- The *-en* suffix in PPPs is higher up, in an Asp head outside of initP (Kratzer 2000, Embick 2004, McFadden and Alexiadou 2010).

Concretely:

(6)



I won't push this too much, but this can make sense of why *ge-* is a prefix, while *-en* is a suffix.

- Given any reasonable implementation of the Mirror Principle, if the three heads in the structure above combine in a single word, the expected unmarked order is res-proc-init-Asp_R.
- Note that it is cross-linguistically common for resultative elements to show up as verbal prefixes, so this seems like a reasonable result.

How do we deal with the extreme dispreference for *ge-* with *cuman*?

- Ramchand's system allows for single verbal elements to simultaneously realize multiple head positions, subject to lexical restrictions.
- We can thus propose that *cuman* is able to lexicalize the res head in addition to init and proc.
- Verbs like *s̄on*, on the hand, cannot lexicalize res, so if res is present in the structure, it must be realized by *ge-*.

What about the low frequency of *ge-* with *etan* and *drincan*? This is where Ramchand (2008)'s theory really pays off.

- ☞ A distinction is made there between resultative meanings that come from the specification of an actual result (target) state, and those that arise from the presence of a bounded path or theme argument.
- ☞ While the former involve an explicit res head in the structure, the latter do not, with the resultative meaning being an entailment of how the rhematic material restricts the interpretation of proc.

Note then that clauses built around *etan* and *drincan*, as consumption verbs, will primarily be found in structures of the latter type:

- They realize *init* and *proc*, and combine with ‘incremental themes’, which introduce a bound for the process, and thus an implication of telicity.
- However, no *res* head will normally be involved in these structures. We thus predict that *ge-* will fail to appear with these verbs, even when they have a ‘resultative’ interpretation.

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