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Problems in Germanic and Old English Phonology
Starčević/Autumn 2011
MID TERM TEST

Multiple choice questions

Choose the (one) correct answer.

(1) In **gukiko*- some of the consonants would have been palatalised in early OE. Which of these would have been possible after palatalisation but before *i*-umlaut?

a. j_č_č b. g_č_č ☺ g_č_k d. g_k_č

Only the first **k* undergoes palatalisation (given that it is followed by a front vowel). The second **k* cannot be palatalised as it is followed by a back vowel. As we said, palatalisation spreads both forwards (progressive assimilation) and backwards (regressive assimilation) (but it is stopped if the velars are/were followed by a back vowel), so **gukik* would have turned **gučič*. Palatalisation thus spreads as long as it is not blocked by a back vowel (or a vowel that used to be back in pre-OE). The same applies to **g* (or rather **ɣ*): *wej* < pre-OE **weɣ* (< Germanic **weɣaz*, but by the time palatalisation 'kick in' in pre-OE, the *-az* had already fallen off in West Germanic and thus cannot block the progressive palatalisation of **ɣ*).

(2) Which form would have been possible for the same word after palatalisation and *i*-umlaut had applied?

a. j_č_č b. g_č_č ☺ g_č_k d. g_k_č

No surprises here: palatalisation and *i*-umlaut are in a counter-feeding relationship, i.e. word-initial **g* (**ɣ*) cannot be palatalised to **j* <ġ>.

(3) Which reconstruction below is correct?

a. bæč < *baki b. lēac < *laukja c. čēoc < *keuki ☹ bæč < *bak

Impossible: a. → palatalisation happens as expected, but pre-OE **a* undergoes *i*-umlaut to **e* (expected *beč*).
b. → impossible (no palatalisation; what is more, OE *ēa* is found umlauted to *īe* (we have not discussed this, but the absence of palatalisation is enough to give away the incorrect form)
c. → same as b.
d. → **a* undergoes Anglo-Frisian Brightening, as **æ* is a front vowel, it progressively palatalises **k* to what appears as <č> in recorded OE.

(4) Assume you had to prove that OE <ēa> was phonologically /æɑ/. Which of the flowing real evidence below could you make use of?

(i) č before ēa (ii) c after ēa (iii) g after ēa (iv) ġ before ēa (ġ < *j)

a. (i), (iii), (iv) ☹ (i), (ii), (iii) c. (i), (ii), (iv) d. (i), (iii), (iv)

The evidence in (i)—(iv) is all real (this is not a parallel universe with a slightly different OE). The first part of the diphthong is front vowel, the second a back one. Accordingly, <č> (which can only originate in **k*) shows that the first part of the diphthong is a front vowel. The presence of <c> *k* (the absence of palatalisation) after <ēa> shows that the second half was a back vowel. The presence of <g> /g/ is the mirror image of <c> (recall: palatalisation happens if the velars are followed by original front vowels and if they are preceded by front vowels as long as they are not followed by a back vowel. ***For the specialists:*** note that it makes no sense to say that velars are palatalised if preceded by original front vowels as it implies that there is no palatalisation after *i*-umlaut, but this is impossible as *i*-umalut suggests that **k/g* must have been followed by **i/j* but then palatalisation would have been unavoidable anyway. So: **k* in both **uki* and **iki* would have been paltalised to <č>.

(iv) above shows nothing if the consonant is originates in **j*. If there is <ġ> before a vowel, it shows nothing about palatalisation (**j* is continued as <ġ> *j* in OE no matter what the quality of the following vowel is).

(5) Could OE *bēc* be an existing word?

a. Yes, if originating in IE **bhēg* b. Yes, if originating in Germanic **bāki*

c. No. d. No, unless it originates in Germanic **bōki*

An original front vowel (<ē>) implies progressive palatalisation of **k*. If the vowel was originally a back one (as in b. and d.), **k* would have had to have undergone palatalisation regardless as it was followed by a front vowel (what is more, the umlaut of Germanic **ā* is *ǣ* in the West Saxon variety of OE). Answer a. is just the IE form (it shows nothing interesting as **g* > **k*, but then we are back to c.)

(6) Could *rǣp* be an existing OE word?

a. Yes, if originating in Germanic **raipi* **b.** Yes, if originating in IE **rēpi*

c. Yes, if originating in **rapi* d. No, unless it originates in **rōpj-*

Both answers are correct! Sorry. I accepted both or either of the two.

Recall: a. Germanic **ai* after *i*-umlaut is found as *ǣ* in OE, i.e. **ai* > **ā* (which is umlauted to *ǣ*)
b. IE **ē* > Germanic **ǣ/ē* > West Germanic **ā* > Anglo-Frisian **ǣ* (but this vowel cannot be umlauted as it is already front!).
c. **rapi* > pre-OE **repi*
d. **rōpj-* > pre-OE **rœ̄pj-* > West Saxon *rēp*

(7) If you had to disambiguate the pronunciation of OE *gearum* using editorial notations which one would you have?

(i) gēarum (ii) ġēarum (iii) ġearum (iv) ġeārum

a. (i), (ii) **b.** (ii), (iv) c. (ii), (iii) d. (iii), (iv)

Some of these are impossible. This is a difficult question. In (i) there is <ēa> whose first half was a front vowel, so if there was a velar consonant before it, it underwent palatalisation (if the original consonant was **j*, nothing of interest happens; it remains *j* in OE). So the form should read (even if somewhat redundantly): *ġēarum*. This leads us onto (ii), which is the correct disambiguation. In (iii) there is a short diphthong <ea> but this is impossible as *r* can only break **æ* if it is in coda position (and then only so if followed by another consonant). But even without this one can still know that this is impossible: **a* (unconditioned development leading to *æ*) is retracted to **a* when followed by a back vowel. This happens before palatalisation (in West Saxon), so the following scenario is a possible one: **garum* > **gærum* > **garum* (if it comes from **jarum*, the story is the same, <ea> is impossible, but <ġ> is then expected, i.e. *ġarum*. If you could stand the heat, and argue that <ġe> only shows that the consonant is *j* rather than *g* (with <e> being a diacritic showing a palatal consonant before a back vowel), then you were spot on (I accepted such a solution). This leads us onto (iv), which could be a disambiguation of OE *ja:rum* (if < **jārum*) with <ġe> showing a /j/ before a back vowel.

So, the correct answer is b., but if you supplied a good explanation for (iii), I also accepted it.

(8) Which of these forms shows that early OE may have had a front non-high vowel different from both /e/ and /æ/?

a. *fætu b. *bænda **c.** *mænni d. *teran

Pre-OE **mænni* might have been *ɛ* at some point, later changed to *e*.

(9) Which of these vowels existed in OE before *i*-umlaut?

a. y **b.** ǣ c. œ̄ d. ȳ

OE *ǣ* is either from umlauted **ā* (Germanic **ai*) or West Germanic **ǣ* (or **ā* – from Germanic **ǣ/ē̄* – which later underwent AFB to **ǣ*). So, OE *ǣ* is either original or the result of *i*-umlaut. For this reason original **ǣ* is also called *ǣ* [1], the other *ǣ* [2] (or secondary *ǣ*). West Saxon has both, Anglian only *ǣ* [2] as **ǣ* [1] was spontaneously changed to *ē* (cf. WS *slǣpan* with *ǣ* [1] vs. Anglian *slēpan* 'sleep'. Modern English *sleep* derives from the Anglian form). Kentish is even more radical: there are no *ǣ*'s at all.

(10) Which of these words could *potentially* have existed in pre-OE but it does not because of a Germanic change?

a. *lāti b. *rǣði c. *hola **d.** *goþi

The only form that can potentially have existed, but does not because it is 'bled' by a Germanic sound change, is d. OE **goþi* is impossible (*o* can only derive from Germanic **u* lowered to **o* by *a/o*-umlaut). There is no form from which OE **goþi* can originate: Germanic **goþi* is impossible because of the general **a, o* > **a* merger. If the original Germanic form had been **guþi*, its **u* cannot have lowered to **o* as there was no **a* or **o* in the next syllable. The rest could have originated in Germanic forms: **lāti* < **laiti*, **rǣði* < **rǣði* (or **rēði*), **hola* < **hula*.

(11) Which of these vowels does not have merged origins in OE (more than one vowel collapsing into one vowel) from either Germanic or pre-OE origin?

a. ō **b. u** c. æ d. ǣ

All other vowel have merged origins: OE *ō* < Germanic **ā*, **ō*; OE *æ* < Germanic **a*, **o*; OE *ǣ* < Germanic **ai* (umlauted), **æ/ē*; OE *u* < **u*.

(12) Which of these is/are impossible in Germanic?

(i) kenda (ii) beigi (iii) lǣxi (iv) huri

a. (i), (ii) b. (ii), (iii) c. (ii), (iv) d. (i), (ii), (iii), (iv)

**kenda* > **kindi*; **beigi* > **bīgi*; the rest are possible

(13) Which of these consonants are innovations of OE when compared to Germanic?

(i) g (ii) č (iii) ġ (iv) w

a. (i), (ii) b. (ii), (iii) c. (iii), (iv) d. (i), (iii)

OE *g* <g> < Germanic **ɣ*, and OE *č* < Germanic **k* (with palatalisation); OE <ġ> < Germanic **ɣ* or **j* (but OE <ġ> from Germanic **j* is not an innovation, so only half of the statement is true, which means it is incorrect); OE *w* < Germanic **w*.

(14) What is the traditional name for the following process: **bæþum* > *baþum*?

a. Anglo-Frisian Brightening **b. Restoration of *a***

c. Retraction of *a* before certain consonants
d. Breaking/Fracture

(15) Which vowel shows the unconditioned development of Germanic **a* in OE?

a. æ b. a c. e d. ea

The rest are conditioned: OE *a* < **æ* (with restoration before back vowels), OE *e* < **æ* (with umlaut), OE *ea* < **æ* (with Fracture/Breaking before *r, l, h* (with additional conditions).

(16) Which of these existed in Germanic?

a. eu, ea, iu **b. eu, au, iu** c. eu, ou, au d. ei, ou, eu
(*iu < *eu with early *i*-umlaut)

The rest contain diphthongs that are impossible because of Germanic sound changes: ***ou* (cf. **a, o* > **a*), ***ei* (**ei* > **ī*).

(17) Which of these existed in Germanic?

a. ō, ǣ, o **b. ō, ǣ, ū** c. ā, ī, ǣ d. o, u, i

**o*, **ā* impossible (cf. **o, a* > **a*, **ō, ā* > **ō*); **æ* (or *ē*) < IE **ē*.

(18) If IE has **taini*, what does OE have?

a. tēn b. tīn **c.** tǣn d. tōn

IE **taini* > Germanic **taini* > WG **taini* > pre-OE **tāni* > **tǣni* > OE *tǣn*

(19) Which of these are not affected by *i*-umlaut in pre-OE (for various reasons)?

a. e, i, a b. ō, u, e **c.** e, i, ǣ d. ā, a, ū

There are no instances of pre-OE **e* undergoing *i*-umlaut because it must already have been followed by **i* in Germanic in which case it had already undergone Germanic mutation to **i* before the onset of pre-OE umlaut. Germanic **i* if followed by **i* was unaffected by **i* (or alternatively, it was affected vacuously: **i* > **i*). OE *ǣ* is not mutated as it is already front. The rest of the groups either contain vowels that were affected by *i*-umlaut or those that underwent Germanic *i*-umlaut (i.e. **e*).

(20) OE *gold* 'gold' and *gyldan* 'gild' ('make look like gold) are related. What is the original vowel underlying both words?

a. *guld- b. *gold- c. *gald- d. gōld-

OE *gold* < Germanic **guldam* (by *a/o*-umlaut, the West Germanic **ð* > **d* is also a regular change), *gyldan* < Germanic **guldj-* (with *i*-umlaut).

Short analysis (à 10 points)

(A) The Indo-European stem **wēn-ja-n-* 'wish, think' is found as OE *wēnan* 'think' (infinitive). Show as many steps in the in the life of this word from Common Germanic to (recorded) OE as you can. Make sure you arrange your rules in the correct order.

IE	*wēnjan
Germanic	*wǣnjan (or *wēnjan) by spontaneous *ē > *ē/ǣ (this is also known as $ē^1$ vs. $ē^2$, claimed to be of composite origin preserved in some OE words and past tense of some strong verbs)
West Germanic	*wānjan by spontaneous *ē/ǣ > *ā (some claim that OE developed from the dialect area in which the *ē/ǣ > *ā change never took place. This is the English tradition. The 'continental' and (more recent) tradition maintains the general *ē/ǣ > *ā change from which OE has ǣ, see below)
Anglo-Frisian	*ā > *ǣ by Anglo-Frisian Brightening (The English tradition maintains that this was not a change as the *ē/ǣ > *ā had never taken place, see above. This is a matter of debate.)
Pre-OE	*ǣ > *ō before nasals
Pre-OE	*ō > *œ̄ (with *i*-umlaut)
Pre-OE	*j lost
OE (WS)	*œ̄ > ē

The OE (WS) form is identical to the IE form.

The raising of **ǣ* to **ō* before nasals must be ordered before *i*-umlaut. Otherwise the form would be *wōnan* (in this imaginary dialect we would have: **wænjan* > **wænjan* (nothing happens as *i*-umlaut does not affect **ǣ*) > **wænan* (*j lost) > **wōnan* (raising before nasals).

(B) Observe the following (somewhat edited) OE data

West Saxon	Anglian	West Germanic	
čæf	čæf	*kaf-	'chaff'
ġæf	ġæf	*ɣaf-	'gave'
caru	caru	*karo-	'care'
galan	galan	*ɣalan-	'sing'
canne	canne	*kann-	'vessel, can'
čeald	cald	*kald-	'cold'
čealf	calf	*kalß-	'calf'
eald	ald	*ald-	'old'
ġ(e)alla	galla	*ɣallo-	'cry'

NB: <c> = *k*

Account for the changes in the word-initial consonants and vowels. Some of the changes are shared by both dialects; sometimes the order of changes is different. Discuss all the relevant sound changes (you might want to bring in other data as well). You may want to classify the data into classes.

Most of you described the changes (more or less correctly) but failed to classify and explain the differences between West Saxon and Anglian. I would have wanted to see some argumentation along the following lines.

The following rules (and the relationship between them) ought to have been mentioned:

-- Anglo-Frisian Brightening
-- Restoration of **a* (traditionally taken to have applied to **æ* before a syllable that contained a back vowel (**a/o/u*)
-- Retraction of **a* before certain sonorant consonants
-- palatalisation

+ the (bleeding/feeding/etc.) relationship between the rules

If we take Anglo-Frisian Brightening to have operated unconditionally (this is the view we must adopt on the basis of data discussed in class), then

1. **a* > pre-OE **æ* (AFB)
2. Retraction of **æ* to **a* before nasals: *canne* (WS and Anglian are the same in this respect)
3. Restoration of **a* before back vowels (again both dialects agree in this): *caru*, *galan*

Note: (2) must be ordered before (3), otherwise (3) cannot work. This is a 'feeding' order, i.e. (2) provided a set of environments on which (3) can work. We can follow this through with *galan*: **galan* > **gælæn* (by (1)) > **gælan* (by (2)) > **galan* (by (3))[1]

4. Palatalisation of the velars before front vowels (all of those that remained after Restoration): *čæf, ġæf* (again both dialects are the same), nothing happening in *galan*

So: Restoration and Palatalisation are in a 'bleeding' order, i.e. Restoration bleeds Palatalisation of some of its potential environments.

Now come the interesting bits, those in which the two dialects do not agree.
It seems that Anglian not only had Retraction before nasals, but also before **l*: *cald, calf, ald, galla*. The absence of Palatalisation shows that this more general Anglian Retraction came before Palatalisation (similarly to WS Palatalisation):

2. Retraction of **æ* to **a* before nasals and laterals (i.e. **l*): *canne, cald, calf, ald*
3. Restoration of **a* before back vowels (again both dialects agree in this): *caru, galan*

Note that *galla* can be explained as either the result of (2) or (3).

4. Palatalisation of the velars before front vowels (all of those that remained after Restoration): *čæf, ġæf*, nothing happening in *galan*

So the order of the rules is identical in the two dialects, the difference lies in the fact that (2) is more general in Anglian, thus (4) appears to be more restricted (i.e. the number of palatalised forms is smaller than in WS).

Back to WS.

WS appears to have a process that Anglian does not (based on these data): Breaking before velar consonants (exemplified here with (dark/velar) **l*). The question of what Breaking produces is a moot issue, but it seems reasonable to suppose that it affects front vowels and turns them into a vowel whose second half is a back vowel. If we take this to be the case then **æ* (the result of AFB) is broken to **æa* before **l*.

Note that it is immaterial whether there is Palatalisation or not, as the first half of the diphthongal vowel produced by Breaking is still a front vowel (in the same way as the input vowel is, i.e. **æ*). So, Breaking happened before Palatalisation, but that is all we can say: *čeald, čealf*. It makes no

[1] Why do we have to suppose that OE *galan* went through a stage represented by **gælan*? This word does not show it, but if the intervocalic consonant was *h (< *x), it disappeared after it had broken the preceding vowel (discussed in class): cf. **slahan* > **slæhæn* > **slæhan* > **slæahan* (Breaking) > **slæa_an* (intervocalic *h lost) > **slæ:an* (contraction into a 'long' diphthong) > *slēan* 'slay'. If we assumed that AFB did not take place (or that AFB was followed by Retraction and Restoration happening at the same time), the expected result would have been ***slān*. If we assumed that loss of *h happened before Restoration and Retraction, we would have ***slæn*. Not all forms show all the possible changes, but on the basis of those who show some of the crucial steps, it is 'cheaper' (more general) to assume that AFB happened across the board with some of its effects undone by later changes (Restoration and Retraction) as these are restricted (i.e. they do not happen across the board, in other words, they are conditioned).

sense to say that Breaking produces ('feeds') Palatalisation, it does nothing more that turn a front vowel into another front vowel. Palatalisation is 'blind' as to quality of the vowel, it would work regardless of Breaking. That is, we have no evidence for where Breaking comes in: does it come *before* Restoration or *after* Restoration?

The interesting question is whether the input to the Breaking rule is **æ* or **a*, i.e. whether AFB worked or not in words like *čealf*. It seems counterintuitive to say that it did not because then we would be forced to say that Breaking turned a back **a* into vowel whose first half is a front vowel (**æa*) before a velar/back (sonorant) consonant. This would be a dissimilation process that had no similar counterpart in any part of OE phonology. This is supported by Anglian in which there is no Breaking in words like *calf* (exactly because the vowel is a back one, produced by Retraction). (Mind you, Anglian did have Breaking before **h* (/x/) and **r* (not part of the data).)

A very interesting (and possibly mysterious) example is supplied by what appears in texts as WS *gealla* (with no editorial diacritics here). Three rules can work here: Restoration of **a*, Breaking and Palatalisation. It is clear that Palatalisation comes after Breaking/Restoration (Restoration 'bleeds' Palatalisation, Breaking is immaterial to it), but what is the order of Breaking with Respect to Restoration? Consider the following scenarios.

(A)

	*ɣallo
AFB	*ɣællo
Breaking	*ɣæalla
Restoration	n.a. (only *æ can be retracted)
Palatalisation	*jæalla
OE	ġealla

(B)

	*ɣallo
AFB	*ɣællo
Restoration	*ɣallo
Breaking	n.a. (a back vowel cannot be broken by a back/velar consonant as it is already back)
Palatalisation	n.a.
OE	galla (expected)

It seems Scenario (A) is the correct one, i.e. Breaking precedes restoration and it 'bleeds' it (as it takes way the environment on which Restoration can work).

There are a number of explanations regarding the spelling of < ġealla> and its relation to pronunciation. Some claim <ea> simply shows a 'short' diphthong, some say it <e> is simply a diacritic showing the palatal nature of the consonant. But why show the palatal nature of a consonant before a front vowel (it is exactly this kind of environment in which palatalisation happens)?

The story in short is as follows: the OE <æ> (representing *æ*) can be regarded as a digraph, i.e. <a e>, which means that *j* is actually followed by a back vowel in spelling suggesting a velar consonant: <g a e>. The vowel was *æa*, which, following the above reasoning, could only have

been represented as <a e a> (the second half of the vowel being *a*). This gives <g a e a>, which is a trigraph. OE had no trigraphs, which means that this had to be simplified somehow. The only letter that could reasonably be dispensed with was the first <a> giving <gea>. This <e> can also be regarded as a diacritic showing the palatal nature of <g>, leaving <a> to represent *æa* (a rather contrived story with a rather good solution). This <a> is functionally overloaded but it occurs in a very special environment. The story can be backed up with other evidence as well (which is too complicated at this point). The word is traditionally disambiguated as <ġealla> (or <ġ(e)alla> showing the diacritic nature of <e>).

One of the difficult questions of OE orthography is why a vowel like *æa* should have been spelt <ea>, suggesting *ea*, rather than <æa> corresponding to the reconstructed *æa*. The explanation seems to lie in the spelling tradition of OE: <æ> (a ligature) was considered a digraph (<a e>), e.g., *bæð*. A vowel like *æa* (whether short or long) can only have been spelt <a e a>, but as trigraphs were banned, it seems, it had to be simplified to <ea> by dropping the first letter of the trigraph. So OE spelling may not have been that phonetic, as usually claimed.