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## Possible Solutions for Long-standing Problems Involving Old English Nominal Forms


#### Abstract

Solutions are presented, most involving Celtic influences in West Germanic (WG) during the ancient period, for some long-standing problems involving nominal forms. The M N-SG forms of /n/-stems in WG may be seen as due to loss of /-n/ (in analogical /-oon/) having happened after shortening. Apparent replacement of the F G-SG by the D-SG in WG may be seen as due to the D-SG of the F personal pronoun being employed, in "external possession", as a kind of indirect reflexive, after /siin-/ became limited (for reasons connected with Celtic influence) to M SG meaning. This case has analogues in Romance. Final $/-s /$ in the A-PL of $\mathrm{M} / \mathrm{a} /$-stems may be seen as due to Celtic influence causing /-nz/ to be replaced by /-ns/.


Keywords: West Germanic, Old English, Celtic influence, equivalence interference

## 1. Introduction

In treating the development of nominal forms in West Germanic (WG), the conventional wisdom fails to explain (in a sensible manner) several important cases. After about 150 years of assiduous and dutiful effort, some OE nominal forms still have no good explanation. Since all such cases belong to the history of English, all have been regarded as fair game here, regardless of whether the solutions proposed have wider applicability. The most important cases are 1) the $\mathrm{N}-\mathrm{SG}$ of $\mathrm{M} / \mathrm{n} /$-stems, 2) the G-SG of $\mathrm{F} / \mathrm{oo} /$-stems, and 3) the N -PL of $\mathrm{M} / \mathrm{a} /$-stems in northerly WG. In presenting the facts it is often necessary to distinguish between northerly WG (N-WG) and southerly WG (S-WG). Old English (almost always joined by Old Frisian) is always northerly, and Old High German is always southerly. Old Dutch (OD) and Old Saxon (OS) can show either northerly or southerly forms, the details rarely having much relevance.

### 1.1 Prefatory Notes

For convenience, the terms "non-West Germanic" and "non-East Germanic" are sometimes used, without any intended implications for grouping. The usual practice among Indo-Europeanists of using " $y$ " for IPA " j " has been followed. The /o/-stems and /aa/-stems of PIE will be referred to as "thematics". It is assumed that ProtoGermanic had a square V-system, so that [a] and [oo] are regarded as / / and /כ/. Since the Germanic forms posited are often quite early, the term "Early Germanic" will often be employed. The traditional division of Celtic into Gallo-Brittonic ("P-Celtic") and Goidelic ("Q-Celtic"), though currently (for no good reason) out of fashion (Schrijver 1995, 465), is assumed. Palatal $/ \mathrm{k} /$ in OE is represented as " $c$ ".

### 1.2 Celtic or "Para-Celtic" in the Area of Northerly WG

In this section, all references to the area of "N-WG" refer to the situation as it was during the late Roman period, which is to say to continental N-WG. The area in question is roughly the Low Countries and Westphalia, which is to say the area of later OD and (attested) OS. (There are no texts from the NE part of the OS area (Rauch 1992, 105), which is the only part that belonged to the original Germanic homeland.) Most of the cases treated below involve influences from Celtic, or more properly "Para-Celtic", entering N-WG during ancient times. There are, especially in N-WG, a fair number of cases where WG shows a resemblance to Celtic, or at least an odd innovation that could be explained as motivated by Celtic influence, if we had only the linguistics to worry about.

But we do not have only the linguistics to worry about. A historical linguist compelled to dabble in archeology soon discovers that no two archeological maps show the same thing. There does seem to be general and long-standing agreement that the spread of WG into the area of N-WG both began earlier and took longer than the spread of WG into the area of S-WG (Priebsch and Collinson 1962, 22; Barnes 2009, 15). A very rough time span, in nice round numbers, might be 750 to 0 B.C. for the former (Keller 1978, 46) and 0 to 500 A.D. for the latter (Keller 1978, 46). It is clear that the area of S-WG was Celtic-speaking before it became Germanic-speaking. But it is not clear that the same is true about the area of N-WG. Far from it, here the long-standing conventional wisdom, expressed in the title "Völker zwischen Germanen und Kelten" (Hachmann, Kossuck, and Kuhn 1962), is that it was not. But this conclusion is based almost entirely on toponymic evidence, and other linguistic evidence pointing to a contrary conclusion will be given soon below. It is not disputed that the area was at least IE-speaking.

The early material culture of the area, belonging to the type known as "Urnfield", had connections (in western Europe) with later Celtic types but not with the Germanic type known as "Jastorff". (The Harpstedt culture seems to
represent the first wave of Germanic conquest.) In a situation where the archeological evidence admits of various interpretations, a historical linguist is free to prefer whatever interpretation makes the best fit with the linguistic evidence. In the present case, this is that the area in question belonged to Celtic (Barnes 2009, 26-27) or rather "Para-Celtic". No doubt "Para-Celtic" is the most appropriate term, technically speaking, since the IE place-names of the area do not show the characteristic sound-changes (like loss of $/ \mathrm{p} /$ ) that define true Celtic. Nor does the material culture of the area show artifacts of the Hallstatt and La Tène types, which within the domain of archeology define true Celtic. But that could well be because the area once belonged to a "Pre-Celtic" culture that, cut off from other Celtic after it was conquered by Germans, did not participate in the later changes of linguistic and material culture that allow us to identify an area as belonging to true Celtic.

As for the linguistic evidence, this includes not only the toponymic evidence but also the evidence of grammatical features, which is to say the areal evidence. In fact grammatical resemblances to Celtic are found in essentially all of the territory of WG (as of about 750 A.D.). This is true not only in Britain and SW Germany, where the pre-Germanic population clearly was Celtic-speaking, but also in the more northerly area where it supposedly was not. Furthermore, resemblances to Celtic appear to be more common in N-WG than in S-WG. Though it is difficult to prove a negative, there appears to be only one case, wide-spread $/ \mathrm{s}$-/ in $3^{\text {rd }}$ person pronouns, where a possible Celticism appears in S-WG but not in N-WG, and here it may well be that/h-/ in N-WG was created by a later evidence-erasing innovation. As the pattern in the areal evidence is the exact opposite of what the conventional wisdom would lead us to expect, we must suspect that the conventional wisdom is wrong.

A list of (easily explained) apparent Celticisms that occur in N-WG but not in S-WG will now be presented. Some of these will come up below. Since the exponential math inherent in assessing the likelihood of coincidence means that it is better to present numerous brief cases than a few detailed cases, that is what has been done.

1) Complete loss of the reflexive/non-reflexive distinction in pronouns. There seems to be general agreement that OD and OS underwent this loss before regaining the accusative from S-WG. Reflexive pronouns were completely absent in Celtic (Vennemann 2013, 121), this being a characteristic innovation of Celtic.
2) Loss of /-t/ in /ist/. A change of $/ \mathrm{st} / \mathrm{to} / \mathrm{ss} /$ (later reduced to $/-\mathrm{s} /$ in final position) appears to be lautgestzlich in Celtic (Schrijver 1995, 403, 428). Thus all textually attested Celtic shows no /t/ in its various reflexes of PIE /esti/ 'is' (Lewis and Pedersen [1961]1989, 318-321). The cognancy of Germanic /isti/ and Celtic /issi/ would have been clear to Celts secondarily acquiring WG, providing a motivation for loss of $/ \mathrm{t}$ /
3) Use of the same form as both dative and accusative in (singular) non- $3{ }^{\text {rd }}$ personal pronouns. This is found in Celtic (Lewis and Pedersen [1961]1989, 194-195, 204-205). The same innovation is also general in Romance, where the most widespread (and centrally located) Pre-Roman languages were various forms of Celtic. This matter will be treated below.
4) Absence of /NS/ sequences (nasal plus voiceless fricative). Celtic, including Gaulish, did not have/-ns-/ and other /NS/ sequences (Jackson 1953, 542-543), but did have intervocalic /-s-/ (Jackson 1953, 542-543). If the usual reconstructions (Stifter 2006, 45, 97, 112, 147) are correct, then in Celtic /-Vns/ in the A-PL of V-stems became $/-\mathrm{VVs} /$, which is to say $/ \mathrm{n} /$ before $/ \mathrm{s} /$ was lost with moraic continuity, as in $\mathrm{N}-\mathrm{WG}$.
5) Replacement of /-ew-/ by /-aw-/ in /u/-stems (Ringe and Taylor 2014, 57). Non-front quality in stem-final Cs in the /u/-stems of Old Irish shows that /e/ had been replaced by $/ \mathrm{a} /$ in the $/ \mathrm{u} /$-stems of Celtic (Lewis and Pedersen [1961]1989, 170; Stifter 2006, 112-113).
6) $/ \mathrm{ft} />/ \mathrm{xt} /$. This occurs widely in Dutch (Donaldson 1983, 153-154) and sporadically in neighboring languages. Some examples are stihtan 'build' in OD (Cowan 1961, 14-15), thiuchte 'theft' in OF (Markey 1981, 117), kraht 'power' in OS (Gallée 1910, 164), and chaitif > chétif 'captive' > 'weak' in French. The Celtic connection is clear: older Gallo-Brittonic had $/ \mathrm{xt} /$ but not $/ \mathrm{ft} /$ or $/ \mathrm{pt} /$ (Jackson 1953, 394, 404), so that /xt/ was substituted for these. The reason that $/ \mathrm{ft} />/ \mathrm{xt} /$ does not occur in AF is that by the time of the AS conquest Brittonic had developed /f/ (and /p/).
7) Sharp separation between stressed and unstressed non-nominative $3^{\text {rd }}$ pronouns. This occurs in both Irish and Brittonic (Lewis and Pedersen [1961]1989, 193-195, 203-205), not to mention also in Old French (Kibler 1984, 74), where it is plausibly seen as due to Gaulish sub-stratal influence. In AF and Dutch (Donaldson 1983, 171-172; Bremmer 2009, 56), $3{ }^{\text {rd }}$ pronouns evidently bifurcated into stressed forms with /h-/ and unstressed forms without /h-/. OS seems to show the older state of affairs, with /h-/ only in nominatives.
8) Initial voiced fricatives. Since the evidence of Romance seems to indicate (indirectly) that Gallo-Brittonic developed voiced initial (and medial) fricatives both rather early and before it developed voiceless initial fricatives, voicing of initial (and medial) fri-catives in Dutch (Donaldson 1983, 150-151) and (southern, Middle) English (Mossé 1952, 38-39) may be regarded as due to Celtic influence.
9) Non-aspiration of voiceless plosives. In continental WG, this occurs only in (non-NE) Dutch and nearby forms of Low German (Schrijver 2014, 123). Much of the Dutch part of this area belongs to an area that Schrijver (2014, 141) regards as having once belonged to proper Celtic, and the rest belonged to "Para-Celtic". It seems probable that both proper Celtic (in this area) and "Para-Celtic" had non-aspirated voiceless plosives, passing this feature on to local forms of WG during secondary acquisition.

The combined implication of these cases should be taken seriously: the PreGermanic IE language of the N-WG area was much closer to Celtic. It will be argued below that there are additional cases where an odd innovation of WG can be explained by reference to a feature that, far from being just vaguely IE, is in fact identifiably Celtic. Since having to repeatedly use terms like "Celtic or ParaCeltic", though technically correct, would be very awkward, the term "Celtic" will be employed with this meaning from here on.

## 2. Tri-moraic /-כد/ in the N-SG of /n/-stems

The recent conventional wisdom (Stiles 1988; Jasanoff 2002) is that in the N-SG of M /n/-stems bi-moraic /-כح/ became tri-moraic /-ככ/ by phonological change. But even a strong supporter (Ringe 2006, 74) calls the supposed development of trimoraic /-כככ/ "very surprising". Though there is of course no problem with positing tri-moraic Vs in cases where they are morphologically warranted, as with /-כد-כm/ in the G-PL of F thematics, the N -SG of $\mathrm{M} / \mathrm{n} /$-stems does not qualify in this regard. From its home in the $/ \mathrm{n}$ /-stems, where it is clearly ad hoc, the theory of tri-moraic /-כد/ has spread to various other cases. In these, the fact that no need to posit tri-moraic //ככ/ had previously been felt indicates that what we have here is desire to create plausible deniability about the original theory being ad $h o c$. Over the years, the result of additional "discoveries" involving tri-moraic Vs (without morphological warrant) has been a theory that is both problematic in its core case and suspiciously complex.

Any theory about how the $/ \mathrm{n} /$-stems of Germanic developed must explain the following two cardinal facts. The first is that in WG the M N-SG, pointing back to /-כد/, has one more mora than would be expected to result from PIE /-oo/. (It also does not fall together with the result of PIE /-aa/ in the N-SG of F thematics.) The second is that the F N-SG and the N N/A-SG are always (except where the alternative $\mathrm{F} \mathrm{N-SG/-ii/} \mathrm{is} \mathrm{found)} \mathrm{the} \mathrm{same}$. attempts to explain the first of these facts by positing ad hoc tri-moraic / $/ \nu \rho /$, and does not attempt to explain the second at all, presenting the impression that it is merely coincidental. But if WG developed M N-SG/-oon/ and N N/A-SG/-on/, for the same analogical reasons that Greek developed M N-SG/-oon/ and N N/A /-on/, then we have a possible explanation for why the M N-SG in WG would seem to be one mora too long: /-n/ would shield /כ/ from shortening. Likewise in the $\mathrm{F} / \mathrm{n} /$-stems, if these were created after shortening, the first F N-SG might well have been the same as the N N/A-SG /-on/, or at least similar enough to be taken as such.

Whether such a scenario could work depends on the development of final nasals in Germanic. It is not controversial that /-m/ in monosyllables became /-n/. As cases of this type have no relevance there, they will be ignored from here
on. For other cases, the long-standing conventional wisdom (Wright [1910]1954, 33-34; Ringe 2006, 85-86) is that $/-\mathrm{m} /$ became $/-\mathrm{n} /$, and that all $/-\mathrm{n} /$ was early on lost, with nasalization of long Vs at least. Since common loss of final nasals is what this amounts to, that is what it will be called below. But it is far from clear that common loss of final nasals actually occurred, and it will be seen that there is no need to posit nasalization of unstressed Vs before lost nasals, which would violate the general rule that unstressed Vs show fewer distinctions than do stressed Vs. Cases of final $/-n /$ in PIE are in any event so rare and uncertain that there is no proof that final $/-\mathrm{n} /$ did in fact fall together with final $/-\mathrm{m} /$.

If we assume that WG (at least) developed $\mathrm{M} \mathrm{N-SG/-ovn/}$, Germanic developed N N/A-SG /-on/, by essentially the same analogies that motivated $\mathrm{M} \mathrm{N-SG/-oon/} \mathrm{and} \mathrm{N} \mathrm{N/A-SG/-on/} \mathrm{in} \mathrm{Greek}$, is any evidence that common loss of final nasals occurred in WG, the answer is no. Using OE as our example language, /-כっm/ (A-SG of F thematics) appears as $/-e / \ll /-ว /$, whereas $/-\supset o n /(N-S G$ of $M / n /$-stems) appears as $/-a / \ll /-ว \supset /$. Similarly, /-om (A-SG of M thematics) appears as /-/ <</-ว/, whereas /-on/ (N-SG of $\mathrm{N} / \mathrm{n} /$-stems) appears as $/-\mathrm{e} / \ll /-כ /$. Under this scenario, forms with $/-\mathrm{m} /$ are regularly one mora shorter than forms with /-n/, and /-כ/ has two different outcomes, depending on whether it was followed by $/-\mathrm{m} /$ or $/-\mathrm{n} /$. Thus if the unremarkable analogies posited above occurred, we have not only no evidence that common loss of final nasals did occur, but positive evidence that it did not. The evidence of WG may be seen as resulting from the following changes having occurred (at least in WG ) in the following order: 1) loss of $/-\mathrm{m} /$, 2) shortening of final Vs, and 3) loss of $/-\mathrm{n} /$. To revisit the evidence of OE, 1) /-כon/ would become $/ \mathrm{-a} /$, 2) $/-\supset \supset \mathrm{m} /$ and $/-\supset \mathrm{n} /$ would become $/-\mathrm{e} /$, and 3 ) $/-\mathrm{om} /$ would become $/-/$. Since such forms are what we find, we must suspect that this series of changes is what occurred. But if so, common loss of final nasals did not occur.

As for how the apparent rule of identity between F N-SG and N N-SG developed, the best possibility appears to be 1) that the first Fs developed after shortening, and 2) that there was (in non-East Germanic) a change of unstressed $/ \mathrm{J} /$ to $/ \mathrm{u} /$ not only before moraic $/ \mathrm{m} /$ (Ringe and Taylor 2014, 17) but also before (at least some) moraic $/ \mathrm{n} / .^{1}$ Technically speaking, this change was really loss of possible contrast between unstressed $/ \mathrm{J} /$ and $/ \mathrm{u} /$ before nasals, which is hardly surprising. In non-East Germanic, $\mathrm{N} \mathrm{N}-\mathrm{SG} /-\mathrm{on} / \sim /-\mathrm{un} /$ would be indistinguishable from F N-SG /-un/ ~/-on/. In East Germanic, the two would also be the same, just with clear /-on/ instead of muddled /-on/ ~/-un/. Either way, the result in all Germanic would be identity, creating a basis for a rule of identity.

Three loose ends remain to be tied up (or not, in the case of the last).
The idea that $/-\mathrm{oo} /$ in the $\mathrm{F} / \mathrm{N} \mathrm{N}-\mathrm{SG}$ of Gothic is phonological rather than analogical in origin involves positing the "surprising" change of /-כ// to /-כว/, which will not of course be done here. Gothic F/N N-SG/-oo/, identical with the result of /-כ..วm/ in the G-PL of F thematics, is simply too long to have any plausible
source in Early Germanic, and must instead have the same analogical source as /-oo/ in Runic (Haugen 1976, 126). The fact that the two inherited /n/-stems with N-SGs in M-looking /-כว/, 'name' and 'seed' (Ringe 2006, 275), developed M gender in WG is hardly surprising. In Gothic, the other way of resolving the contradiction was taken: 'name' retained N gender, but developed a regular N N/A-SG in /-on/, later altered to /-כว/ in lock-step with the F. Though re-development of / / / creates the impression that /כ/ / existed all along, this impression is an illusion. The similarity between Gothic /namoo/ (N) and pre-OHG /namoo/ (M) is merely coincidental, and as such has no implications for Early Germanic.

As has long been known, or at least strongly suspected (Wright [1910]1954, 167-168), various Gothic adverbials in /-oo/ or /-ee/ can be seen as showing long Vs not because their Vs were originally tri-moraic but rather because they still had (when final long Vs were shortened) /-t/ from ablative /-d/. Nothing in such forms indicates tri-moraic Vs that would create plausible deniability about trimoraic /כد// in the M N-SG of /n/-stems being ad hoc.

Reconstruction of the M N-SG in non-WG, more difficult than relevant, has not been attempted. Suffice to say that if Prokosch $(1939,251)$ is right, $\mathrm{M} /-\varepsilon /$ in Pre-Gothic could provide an explanation for Gothic G-PL /- $\varepsilon \varepsilon />/-e e /$ : analogy with F N-SG /-د/ and G-PL /-כ/.

It seems advisable to present a table showing that the sound-changes posited do not lead to wrong results, at least in the major cases treated. (As for minor cases not treated, "proving a negative" about these would be very difficult.) The table is intended to apply only to WG , though some side notes are made about non-WG. Changes have been simplified somewhat in order to avoid irrelevant complications. The meanings of the column labels employed are as follows. 1: A-SG of M thematics, N/A-SG of N thematics; 2: N -SG of $\mathrm{M} / \mathrm{n} /$-stems; 3: A-SG of F thematics; 4: N-SG of F thematics, N/A-PL of N thematics, 1SG present of many Vs; 5: N/A-SG of N /n/-stems, (eventual) N-SG of F /n/-stems; 6: G-PL of F thematics; 7: N-PL of M thematics, N-PL of F thematics, G-SG of F thematics; 8: A-PL of M thematics. Changes have been put in bold. Preceding states are repeated before every set of changes, and zero as an ending has been represented by "○". The case of the infinitive, which is difficult, will be treated below.
/-m/ Loss. Final /-m/ is lost. In non-East Germanic, /-כح/ becomes /-uu/.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -om | -כon | -כom | - כ- | -on | -วכวm | -כoz | -כnz |
| -כ | -כวn | -כ | -uu | -on | כככ | -כЈz | -onz |

Mora Loss. Final unstressed Vs (except /u/) lose one mora. ${ }^{2}$ Soon afterwards, F /n/-stems are created, with N-SG/-un/. Since /-un/ and /-on/ are not distinguishable, the new F N-SG is in effect the same as the old N N-SG (case 5 ),
and a rule of identity develops. In N-WG, /-nz/ becomes /-ns/. (This case will be treated in section 4.) Column 8 must now be split into two columns, 8 a and 8 b .

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 a | 8 b |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $-\supset$ | $-\supset \supset n$ | $-\supset \supset$ | - -uu | $-\supset n$ | $-\supset \supset \supset$ | $-\supset \supset z$ | $-\supset n z$ | $-\supset n z$ |
| $\bigcirc$ | $-\supset \supset n$ | $-\supset$ | $-\mathbf{u}$ | $-\supset n$ | $-\supset \supset$ | $-\supset \supset z$ | $-\supset n z$ | $-\supset n s$ |

$/-z /$ Loss. Final /-z/ is lost in WG. (It is quite possible that /-z/ after Vs was not lost at the same time as $/-z /$ after $/ \mathrm{n} /$ ). In $\mathrm{N}-\mathrm{WG}, / \mathrm{n} / \mathrm{in} /-\mathrm{ns} /$ is lost, with moraic continuity.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 a | 8 b |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | $-\supset \supset n$ | $-\supset$ | -u | $-\supset n$ | $-\supset \supset$ | $-\supset \supset z$ | $-\supset n z$ | $-\supset n s$ |
| $\bigcirc$ | $-\supset \supset n$ | $-\supset$ | $-u$ | $-\supset n$ | $-\supset \supset$ | $-\supset \supset$ | $-\supset n$ | $-\supset \supset s$ |

/-n/ Loss. Final /-n/ is lost.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8a | 8b |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | -วงn | - | -u | -on | -כ | -כ | -эn | -כos |
| $\bigcirc$ | -כ | - | -u | -כ | -כ | כ-כ | -כ | -כวs |

Later Vs. Vs assume their later forms: /-כ/ becomes /-a/ and /-כ/ becomes /oo/.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 a | 8 b |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\bigcirc$ | $-\supset \supset$ | $-\supset$ | -u | $-\supset$ | $-\supset \supset$ | $-\supset \supset$ | $-\supset$ | $-\supset \supset s$ |
| $\bigcirc$ | $\mathbf{- 0 0}$ | $-\mathbf{a}$ | -u | $\mathbf{- a}$ | $\mathbf{- 0 0}$ | $\mathbf{- 0 0}$ | $-\mathbf{a}$ | $\mathbf{- 0 0 s}$ |

The complete table is as follows:

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8a | 8b |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Start: | -om | -วงn | -כวm | -כЈ | -on | -วงวm | -כコz | -onz |  |
| /-m/ Loss: | - | -วงn | -כ | -uu | -on | ככ- | -כコz | -onz |  |
| Mora Loss: |  | -วงn | -J | -u | -כn | -כ | -כJZ | -onz | -כns |
| /-z/ Loss |  | -כงn | - | -u | -on | כ-- | -כ- | -כn | -כos |
| /-n/ Loss: | ) | -כ | -Ј | -u | -כ | כ-כ | -כ- | -כ | --os |
| Later Vs: | $\bigcirc$ | -00 | -a | -u | -a | -00 | -00 | -a | -00S |

What is most important here is what does not appear: tri-moraic Vs. Reasons to consider this a desideratum have been given above. Also worth noting as "not appearing" are nasal Vs. This too is a desideratum: the idea that Early Germanic
had nasal Vs only in unstressed Vs violates (as has been noted) the general rule that stressed Vs show more distinctions. ${ }^{3}$ It is worth noting that, without nasalization of unstressed Vs, the conventional wisdom loses its explanation for the difference of development between F N-SG/-כว/ and F A-SG /-כom/.

If the infinitive ending in Pre-Germanic was /-onom/, the scenario given above wrongly predicts that we should find infinitives in $/-\mathrm{a} /</-\mathrm{J} /$. It is therefore necessary to posit that the infinitive ending was something else. But first some comments on /-onom/ are appropriate. In the older IE languages that show a variety of infinitive endings, which is to say Vedic Sanskrit, Homeric Greek, and Old Irish, a form pointing back to /-onom/ appears in only one verb: 'milking' in Old Irish (Thurneysen 1946, 454). Thus there is little reason to believe that /-onom/ existed in PIE A better possibility appears to be that the original ending was /-omnom/, with the same $/ \mathrm{m}-\mathrm{n} /$ that was employed to form middle participles and abstract nouns (including verbal nouns) in PIE, and which appears in some infinitives in Homeric Greek (Sihler 1995, 618, 288, 609). A dissimilatory change of $/ \mathrm{mn} /$ to $/ \mathrm{md} /$, followed by a change of $/ \mathrm{md} /$ to $/ \mathrm{nd} /$, appears to lie behind Latin "secundus" (Sihler 1995, 627). If the same thing happened in Pre-Germanic, then the initial developments would be $/-$ ontom/ $>/-$ onto/ $>/-$ ont $/>/-$ on/ $>/-\mathrm{an} /$.

To sum up, the relevant changes were as follows: 1) creation of M N-SG/-oon/ in WG (at least) and N N/A-SG /-on/ in all Germanic, 2) loss of final /-m/, 3) mora loss, 4) creation of a) F /n/-stems, and b) the rule of identity between F N-SG and N N/A-SG, and 5) loss of final /-n/. Such a scenario explains, without recourse to "surprising" changes, the two cardinal facts noted at the outset: 1) why the F N-SG is (in WG) one mora shorter than the M , and 2) why the F N-SG is (in all Germanic) the same as the N N-SG, apparently by rule. Negatively speaking, such a scenario involves denying the following changes: 1) change of final $/-\mathrm{m} /$ to $/-\mathrm{n} /$, 2) loss of final $/-n /$ before mora loss, 3) development of nasalized Vs, 4) existence of tri-moraic Vs without morphological warrant, and 5) merely coincidental identity between the F N-SG and N N-SG of /n/-stems. It seems better simply to posit that $/-\mathrm{n} /$ developed in the M N-SG of WG (at least) and in the N N/A-SG of all Germanic, and that final $/-n /$ was lost after mora loss.

## 3. Two Related Cases involving Datives and Reflexives

### 3.1 The G-SG of F Thematics in West Germanic

It has never been explained why the G-SG of F /o/-stems in WG does not simply continue the reflex of Early Germanic /-כoz/, as do /-oos/in East Germanic and /-ar/ in North Germanic (Wright [1910]1954, 90; Gordon [1927]1957, 285). The WG forms should appear as northerly $/-\mathrm{a} /$ and southerly $/-\mathrm{o} /$. Hogg and Fulk (2011, 30-31) admit this, and offer no explanation as to why G-SG $/-\mathrm{a} /$ is rare in OE. By
contrast Ringe and Taylor (2014, 58-60), following Stiles (1988, 129-130), deny that the WG forms should have been northerly $/-\mathrm{a} /$ and southerly $/-\mathrm{o} /$, positing that unstressed bi-moraic /د/ became /aa/ in some cases. But the cases cited in support are all dubious. Only three can be treated here.

First, it is improbable, on general principles, that the inherited preterit 3-SG of weak verbs was analogically replaced by the $1-\mathrm{SG}$. Nor is there any reason (not counting wishful thinking and benefit of hindsight) to believe with Ringe $(2006,148)$ that $1-\mathrm{SG} /-\mathrm{eem} /$ would be expected to become /-oo/. More probable is that the 1-SG and 3-SG fell together by analogy going the other way, from 3-SG $/ \mathrm{d} \varepsilon \mathrm{d} \varepsilon /$ (with final stress). Second, the N-PL of F thematics, which Ringe and Taylor attempt to explain as differing from the G-SG by having three moras instead of two, probably had only two. The older IE languages never (Sihler 1995, 267-271) show F thematic forms in $/-\mathrm{s} /$ that can only be explained by positing $/ \mathrm{ah}_{2} / 4$ plus a vocalic ending that would add a 3rd mora. For example, there is no evidence pointing back to A-PL $/-\mathrm{ah}_{2} \mathrm{n} \mathrm{s} /$. The attested forms point back to $/$-aans/, variously resolved as $/-\mathrm{aas} /$ or $/-\mathrm{ans} /$, and it is evident that in the A-PL at least $/-\mathrm{ah}_{2}-/$ became /-aa-/ early enough that C-initial endings were employed (except in the G-PL, which was a late innovation). Third, M A-SG pronominal forms appearing to point back to nasalized /-כว/might go back rather to /-ot/ </-ad/, since /-t/ would (unless Ringe $(2006,144)$ is wrong about the ordering of apocope) protect $/ \mathrm{J} /$ from apocope. If so, long $/ \mathrm{oo} /$ and $/ \mathrm{ee} /$ before $/ \mathrm{x} /$ in Gothic would have to be due to lengthening before $/ \mathrm{x} /$, but there does not appear to be anything decisive against that. There is no compelling reason to think that bi-moraic /-כว-/ became /-aa-/ in Late Germanic.

The G-SG of F thematics in WG appears to go back (where instrumentals in /-u/ have not intruded) to the D-SG (Ellis 1966, 31). The one exception, abstracts with G-SG /-unga/, is pretty clearly due to assimilation of /-æ/ to /-a/ after /-ung/ (Hogg and Fulk 2011, 31). What may be called "instrumental intrusion" will be ignored from here on, except to note that, as instrumental forms are most frequently found as datives, instrumental intrusion in the genitive is itself a form of "dative intrusion". The dative ending (in origin a locative) was $/-\mathrm{i} /$, so that the D-SG of F thematics should have been /-osi/, which is to say the F thematic stem $\mathrm{V} / 0 /$ (after shortening) plus the M thematic D-SG ending /-oi/. No doubt/-วงi/ >/-ooi/ is the origin of forms pointing back to /-uu/ in Norse. In other Germanic, it is evident that/-əวi/ was shortened before / $\omega /$ became /oo/. In East Germanic, this must have happened after /-si/ >/-ai/ became /-ee/ >>/-a/.

In Gothic, F D-SG /-oi/ became /-ai/ (Wright [1910]1954, 44, 90). Since in OHG the D-SG of F thematics is $/-\mathrm{a} /$ (Ellis 1966, 31), not the same as $\mathrm{M} /-\mathrm{e} /$ from earlier /-ai/ (Ellis 1966, 28), the F must have a different origin. It seems probable that shortened $/-\mathrm{oi} />/-\mathrm{ai} /$ simply lost its $/-\mathrm{i} /$. Since $/-\mathrm{a} /$ in OHG as a rule corresponds to $/-æ /$ in OE , the simplest interpretation is that the same thing happened in N-WG.

For OE, a literal interpretation of the evidence would indicate that $/-\mathrm{e} /$ in the M D-SG became /-æ/, falling together with F /-æ/, with a later change of /-æ/ to $/-\mathrm{e} /$. But a back and forth change of /-e/ to /-æ/ to /-e/ must arouse some suspicion, and critical examination reveals no compelling evidence that "-ae/-æ" and "-e" were in fact in contrast in the earliest glossaries, most notably Épinal. It seems probable that unstressed /-e/ in OE had already become centralized enough that preceding Cs struck Irish ears as more back than front, so that "-ae", which to Irish eyes meant /e/ preceded by a back C, would be the appropriate spelling. ${ }^{5}$ Since to Irish ears $/-æ /$ in OE also seemed to be /-e/ preceded by a back C, contrast between "-ae" and "-e" was not possible (in the original system). To the native English, it would seem that /-e/ and /-æ/ were both, for some strange reason, to be spelled as "-ae". All in all, it seems most probable that the F /-æ/ and M /-e/ fell together only with the later change of $/-æ /$ to $/-\mathrm{e} /$.

The idea that the G-SG of F thematics is exactly what it looks like, the old D-SG employed as a new G-SG, is not new. Hogg and Fulk $(2011,31)$ note that it was argued by Flasdieck (1930), and it is presented (in passing) as a plain fact by Ellis $(1966,31)$ for OHG. Yet it has not won much acceptance. Hogg and Fulk $(2011,31)$ dismiss the idea as "unilluminating", an implicit admission that the theory works technically. It is not as if there is no connection between the meanings 'dative' and 'possession', as is sufficiently conveyed by the phrase "dative of possession", and random divergence might be why this connection had effects only in WG. But random limitation to F thematics is problematic: any purely semantic motivation should have applied across all declensional classes. This must be what Hogg and Fulk object to. The question that must be answered is this: why did the D-SG drive out the G-SG in WG only and in F thematics only?

An answer to this question may be found lurking in a corner of the grammar that might at first appear to have no possible relevance: loss of the reflexive/ non-reflexive distinction in genitive/possessives. The connection is by way of "external possession". This typically 1) involves a dative (or prepositional phrase) functioning as a de facto genitive to mark the possessor, and 2) is reflexive in meaning (Scholten 2018, 36-37). ${ }^{6}$ If 1) the D-SG of the F personal pronoun began to be employed as a sort of indirect reflexive, filling the gap created as /siin-/ became regarded as no longer capable of expressing F SG meaning, and 2) the D-SG later lost its originally intended reflexive meaning, becoming regarded as nothing more than a new G-SG, then spread of this usage to other F thematics would result in dative intrusion.

Developments in this case cannot be understood in isolation from their larger areal context. Across a wide swath of western and northern Europe, more or less in the areas now belonging to Romance and WG, the reflexive/non-reflexive distinction had been, by the middle of the Dark Ages, either partially or totally lost. There are two main types.

In Romance and S-WG, the reflexive/non-reflexive distinction was partially lost: in genitive/possessives. As Old French is the form of Romance with the greatest potential relevance to WG, and matters are essentially similar in other Romance, Old French will be the focus from here on. In Old French, the inherited reflexive form is used in the genitive/possessive of SGs , and non-reflexive forms are used elsewhere (Mendeloff 1969, 64). In S-WG, the inherited reflexive form was used in the genitive/possessive of the M SG, and non-reflexive forms were used elsewhere (Ellis 1966, 48). In both Old French and S-WG, the forms in question are employed with both reflexive and non-reflexive meaning, though reasons will be seen below to think that this was a later development.

In N-WG, the reflexive/non-reflexive distinction was (to simplify a bit) completely lost, due to complete loss of the inherited reflexive (Ringe and Taylor 2014 , 165). Though in OE the old reflexive /siin/ (oddly enough employed as a true reflexive, for all numbers) limps on in poetic/archaic usage, the impetus towards loss was clearly strong from the beginning. It is clear that OD and OS originally went with OE in this regard, though by the time of attestation both have either wholly or partially adopted the system of S-WG (Gallée 1910, 237-238; Cowan 1961, 42). Though /siin/ occurs (only as a non-clitic) in OF (Bremmer 2009, 56), the fact that it is employed in the manner of S-WG means that its appearance must be due to later influences from S-WG (transmitted by way of OD and OS). It is not immediately apparent whether N-WG shared early developments with S-WG. Reasons will be given below to think that it did.

Two additional facts should be noted. Old French shows a confusion of reflexive and non-reflexive pronouns (Kibler 1984, 88) that would be inconceivable in Modern French. Evidently an abortive move toward total loss of the reflexive/non-reflexive distinction was being reversed that Old French, S-WG, and N-WG all lose the dative reflexive (Ellis 1966, 48; Mendeloff 1969, 64). Since the predominant use of this must have been to express reflexive possession, its loss must have some connection with loss of the reflexive/nonreflexive distinction in genitive/possessives. What that connection might be will be seen below.

It can hardly be stressed too strongly that even partial loss of the reflexive/ non-reflexive distinction, which should have been both clear and useful, is at best un-expected and at worst perverse. The same goes for loss of the dative reflexive. Neither one of these losses occurs in Gothic or Norse (Wright [1910]1954, 122; Gordon [1927]1957, 294), which must represent the expected development. The areal evidence indicates that a motivation for both losses existed in Romance and in WG (especially N-WG), but not in non-WG. This in turn indicates something that is anathema to traditional Germanicists: external motivation. Grammatical resemblances between French (often joined by northern Italian) and continental WG are common enough that a "Charlemagne Sprachbund" has been posited (Auwera 1998). The conventional wisdom seems to be that the Charlemagne

Sprachbund was created by mutual superstratal influences flowing back and forth between Romance and continental WG.

But whether or not that is true in most cases (which for reasons not worth going into seems improbable), it cannot be true in the present case, for a very simple reason: nothing in the start-states of Romance or WG would provide a motivation. We would be stuck with positing an innovation without motivation, hardly a likely scenario, except for two facts. The first is that one thing French, northern Italian, and WG have in common is that they all existed in territory that had once belonged to Celtic. The second is that reflexives did not exist in Celtic. Since external possession is strongly associated with reflexive meaning, it can hardly be surprising that external possession too did not (apparently) exist in Celtic, which simply employed possessive pronouns in the manner of PDE (Lewis and Pedersen [1961]1989, 194-195, 204-205). As the reflexive/non-reflexive distinction is more widely lost in genitive/possessives, it seems that the distinction was, for some reason that need not detain us, more easily lost in genitive/ possessives. It is difficult to avoid concluding that loss, partial or total, of the reflexive/non-reflexive distinction in French, S-WG and N-WG was motivated by influences from Celtic.

In the PL genitive/possessives of WG, where apparently nothing happened except that the old reflexive became limited to M SG meaning, the inherited forms employed are genitives, as expected. But in the F SG, the form employed in S-WG is not the genitive but rather the dative. This is not as expected, and so requires some explanation. It seems that a semantic connection was perceived between the meanings 'reflexive' and 'dative'. This is hardly surprising, since (as has been noted) datives in external possession typically have reflexive meaning. Some examples are French "Je me lave les cheveux" 'I wash/am-washing my hair', literally 'I wash (for) me the hairs', and its F 3 'rd person equivalent "Elle se lave les cheveux", 'she washes/is-washing her hair', literally 'She washes (for) herself the hairs'. (Note the accusative in place of the lost dative.) The question is why this semantic connection, which would have applied quite generally, had linguistic consequences only in the $F S G$.

The answer appears to be that the F-SG stood in a saliently contrastive relation with the M SG, where /siin-/ had come to be limited to M reflexive meaning. Note that if /siin-/ had already become regarded as covering both reflexive and non-reflexive meaning, there would have been no reason not to use the genitive of the F pronoun. Use of the dative instead makes sense only if the reflexive/nonreflexive distinction was not quite dead yet. Speakers casting about for some new way of expressing F SG reflexive meaning could hardly have done better than to employ the dative of the F personal pronoun as a kind of indirect reflexive. Probably in the beginning this usage was in effect by analogy with non- $3^{\text {rd }}$ pronouns. For the historical moment, F reflexive meaning was signaled not directly, by form, but indirectly, by case. The situation was roughly as follows:

|  | Reflexive |  | Non-Reflexive |
| :--- | :--- | :--- | :--- |
| $\mathrm{M}:$ | siin- | $\varepsilon s \varepsilon$ |  |
| $\mathrm{~F}:$ | $\varepsilon z \supset . \supset \mathrm{i}$ | $\varepsilon z \supset \supset z$ |  |

But in the long run this awkward system could be not maintained, and all forms of WG lost the reflexive/non-reflexive distinction in genitive/possessives. Even in a situation devoid of external influences, use of the old D-SG as a new G-SG might well be interpreted as nothing more than a "fashion trend" toward using the old D-SG as the new G-SG. But the situation in Old French and WG does not qualify as "devoid of external influences". To Celts, whose language had neither the reflexive/non-reflexive distinction nor external possession, 'wash her(D-SG) hair', intended as indirectly signaling reflexive meaning, could only be interpreted as 'wash her(G-SG) hair', without any specifically reflexive meaning. (The time period was before the development of definite articles in Germanic.) The attempt to save the reflexive/non-reflexive distinction in the F SG by using the D-SG was thus inevitably abortive.

What happened overall was evidently as follows. As Romance and WG spread into areas where the previously existing languages, whether Celtic (or, in some of the Romance area, Vasconic), did not have either the reflexive/non-reflexive distinction or external possession, both of these concepts were somewhat damaged. The dative of the reflexive was so damaged as to be completely lost. (More on this will be said in the next section.) In Romance and S-WG, both the reflexive/non-reflexive distinction (outside of genitive/possessives) and external possession were able to survive the near-death experience that followed their encounter with Celtic. As the reflexive/ non-reflexive distinction (in genitive/possessives) continued to fade away in WG, S-WG generalized /siin-/. But N-WG, where the impetus away from reflexives with /s-/ was stronger, generalized non-reflexive /es-/ (with development of initial /h-/ in OE). Use of the old D-SG as a new G-SG spread from the personal pronoun first to F demonstratives, then to F thematic adjectives, and finally to F thematic nouns. Since this process is common to all WG, it is difficult to avoid the conclusion that N-WG did indeed share early developments with S-WG.

If this is what happened, we have answers to three questions. The first is why the F SG form used (in the personal pronoun) to express possession is not the genitive but the dative: the dative was employed in an abortive attempt to express the reflexive/non-reflexive distinction through external possession. The second is why the D-SG replaced the G-SG in F thematics only: the starting point, the personal pronoun, was a F thematic. The third is why the D-SG replaced the G-SG in WG only: WG was the only branch of Germanic that was in contact with Celtic.

### 3.2 Common A/D-SG forms in $1^{\text {st }}, 2^{\text {nd }}$, and Reflexive Pronouns

In personal pronouns, except for $3{ }^{\text {rd }}$ person non-reflexives, Old French and $\mathrm{N}-\mathrm{WG}$ show endingless accusatives identical with the dative (Gallée 1910, 236; Cowan 1961, 42; Mendeloff 1969, 64; Hogg and Fulk 2011, 203, 205). Two matters connected with, but not really relevant to, the present case will be ignored here: 1) variation between /e/ in OE and $/ \mathrm{i} /$ elsewhere, and 2) non-singular non-3 ${ }^{\text {rd }}$ pronouns in Germanic. In these last, development of a common accusative/ dative, which is found in Gothic and Norse (Wright [1910]1954, 120; Gordon [1927]1957, 293), is clearly old.

The conventional wisdom (Hogg and Fulk 2011, 203; Ringe and Taylor 2014 , 86) regards loss of $/-\mathrm{z} />/-\mathrm{r} /$, which is to say a phonological change, as the reason that $\mathrm{N}-\mathrm{WG}$ shows dative non- $3^{\text {rd }}$ pronouns without $/-\mathrm{z} />/-\mathrm{r} /$. (Since it is not entirely clear whether it was $/-z /$ or $/-r /$ that was lost, use of "/-z/ > /-r/" seems best.) But there are problems with this idea. One is that loss of the dative reflexive $/ \mathrm{siz} /$ in all WG cannot of course be attributed to loss of $/-\mathrm{z} />/-\mathrm{r} /$ in only some WG. Thus there is at least one case where loss of the dative was not phonological, and whatever cause operated in that case could have operated in others. Another is that the sound-change posited to explain $/ \mathrm{r} /-\mathrm{less}$ pronouns in WG is, according to Hogg and Fulk (2011, 198), "exceptional", i.e. not regular. Indeed it is not entirely clear that the occurrence of "/r/-less" pronouns in N-WG and "/r/-full" pronouns in S-WG has a unitary explanation: nominatives with or without $/ \mathrm{r} /$ could be due to leveling in different directions, and datives without $/ \mathrm{r} /$ could be due to replacement by the accusative. Though Hogg and Fulk (2011, 203) regard endingless accusatives in OE as datives employed as accusatives, this does not tell us much if the origin of these is not clear, and it is quite possible that the forms in question are actually accusatives employed as datives.

A complication is that Anglian OE and OS, both from the NE part of the $\mathrm{N}-\mathrm{WG}$ area, show distinct accusatives with an ending pointing back to original $/-\mathrm{k} /$, though these are always in competition with endingless accusatives (Campbell 1959, 288; Rauch 1992, xxx). Since in Gothic and Norse only "endingful" accusatives with /-k/ occur (Wright [1910]1954, 120; Gordon [1927]1957, 293), it seems clear that endingless accusatives in N-WG are the result of an innovation that originated along the more westerly coast of the North Sea, in effect taking a bite out of the much larger area that retained accusative $/-\mathrm{k} /$. The innovation was thus marginal rather than central, which is somewhat odd. Its geography, even considered in isolation, would suggest external motivation. But its geography does not exist in isolation. Endingless accusatives in Germanic are integrally associated with loss of the accusative/dative distinction, which also occurs in neighboring Old French. Thus we have some reason to suspect that endlingless accusatives in N-WG are the result of an externally motivated innovation connected in one way or another with similar developments in Old French.

There is a simple rule, valid for both Old French and N-WG, as to what pronouns lose the accusative/dative distinction: every personal pronoun that either may or must have reflexive meaning loses the accusative/dative distinction. Only Old French shows the syndrome applying to all possible instances: /me, te, se/. These are most simply seen as accusatives employed as both accusatives and datives, as is indisputably the case with /nos, vos/ (Mendeloff 1969, 62). Thus at least for Old French it is clear that its common accusative/datives are accusatives employed as datives. As for $\mathrm{N}-\mathrm{WG}$, if we ignore for the moment distinct accusatives existing alongside non-distinct accusatives, the situation is the same as in Old French, except for the predictable absence of reflexives in OE and (original) OD and OS. The common accusative/dative forms seen in N-WG can be regarded as endingless accusatives employed as datives. Doing so permits a unified description of the overall evidence: loss of the always-reflexive $3^{\text {rd }}$ person dative with /s-/ (which occurs in Old French and all WG) is more widespread than loss of the sometimes-reflexive non-3 ${ }^{\text {rd }}$ person datives without $/ \mathrm{s}-/$ (which occurs in Old French and $\mathrm{N}-\mathrm{WG}$ ). The point of a unified description is that it might permit a unified explanation. There appear to be two possibilities.

The first possibility is that some cause created a greater motivation for loss of always-reflexive datives than for loss of sometimes-reflexive datives. For persons whose only native language was Celtic, the combination of dative reflexives and external possession would have been doubly difficult, given that both concepts were alien to Celtic. Latin /sibi/ and WG/siz/ must have been used very often in ways that were difficult for the Celtic mind to comprehend. Influences from Celtic, temporarily stronger than they later became, may well have much to do with why external possession, though it occurs in both Classical Latin and later Romance, is oddly absent in Late Latin (Luraghi, f.c.). It is worth noting that when dative reflexives are revived in French and German, the form employed is the accusative, which is to say that the dative has already been lost. With non-3 ${ }^{\text {rd }}$ pronouns, which were only sometimes reflexive, the impetus toward loss would have been weaker. But though this would explain why loss of the dative reflexive occurs more widely than loss of other datives, it would not explain why loss of non- $3{ }^{\text {rd }}$ datives occurs where it does: the area of Old French and N-WG.

The second possibility begins with the observation that odd parallels between Old French and Old English must be suspected of being due to parallel Celtic substratal influences "under" French and English. A good example is the odd palatalization and vocalization of $/ \mathrm{k} /$ before $/ \mathrm{t} /$ seen in English "night" and French "nuit", compared with Welsh "noeth" (and contrasted with German and Dutch "nacht"). In Celtic, forms pointing back to /me, te/, though clearly accusatives in origin, were employed as common accusative/datives (Lewis and Pedersen [1961]1989, 194-195, 204-205). Thus Celtic/me, te/ might well be identified with Latin/Romance /me, te/ and (less straightforwardly) with Germanic /mek, Өek/ by equivalence interference. The Germanic half of this makes more sense when we
consider that the spread of Germanic into the area of NW continental WG evidently occurred early enough to pre-date Grimm's Law, so that what Celts encountered in Germanic was /mek, tek/. There are two reasons that getting rid of $/-\mathrm{k} /$ would seem sensible to Celts: 1 ) $/-\mathrm{k} /$ did not correspond to any element in Celtic, and 2) $/-\mathrm{k} /$ did not make any distinction that Celtic made (in its non $-3^{\text {rd }}$ pronouns). This scenario, unlike the one given just above, would explain why loss of non-3 ${ }^{\text {rd }}$ datives occurs where it does: there is (as has been seen) independent evidence suggesting that Celtic influences were stronger in N-WG (and Old French) than in S-WG. The similarity between /me(e), Өe(e)/ in Old English and /me, te/ in Old French is almost certainly not coincidental.

It seems most probable that the first possibility lies behind the widespread loss of the dative reflexive pronoun, and that the second possibility lies behind the more limited use of endingless accusatives as common accusative/datives in non- $3{ }^{\text {rd }}$ pronouns.

The further development, and unexpected demise, of accusative /-c/ in OE remains to be treated. In Anglian OE (the only kind of OE where they occur), accusatives with /-c/ are always (as has been seen) in competition with endingless accusatives identical with the dative. They had evidently become archaic/poetic variants, and do not survive the transition to post-AS English (Mossé, 54-5). ${ }^{7}$ As this violates the general rule that Anglian variants dominate in Middle English, some explanation is required. Here it must be relevant that N-WG in Britain was subjected to another round of Celtic substratal influence simply by being in Britain. Even if by this time earlier /me, te/ had been reduced to something like $/ \mathrm{m}, \Theta /$, the same general considerations would apply: $/ \mathrm{m}, \Theta /$ would be recognizably cognate with $\mathrm{OE} / \mathrm{me}(\mathrm{c}), \Theta \mathrm{e}(\mathrm{c}) /$, both were common accusative/datives, and accusative $/-\mathrm{c} /$ would seem pointless. But since apocope in Brittonic did not, apparently, happen till around 525 (Jackson 1953, 695-696), chances are that what happened in Britain during the early AS conquest in the N was a repeat of what had happened earlier on the continent, leaving accusative $/-\mathrm{c} /$ mortally wounded even where it had been strong.

### 3.3 Conclusion

The fact that Celtic had neither reflexives nor external possession had very significant consequences for WG, both southerly and northerly, not to mention for Old French (and other Romance). In all three, the reflexive/non-reflexive distinction in genitive/possessives and the dative of the reflexive were lost. In all of WG, an abortive attempt to save the reflexive/non-reflexive distinction in Fs, by using the D-SG as an indirect reflexive, led to "dative intrusion" in the G-SG in F thematics. In N-WG, stronger influences from Celtic led to the reflexive/ non-reflexive distinction being entirely lost. In westerly N-WG and Old French,

Celtic influence caused the accusative (in WG shorn of its $/-\mathrm{k} /$ ) to replace the dative. In English, another round of Celtic influence caused the same process to happen again, so that Anglian forms with /-c/ were lost. The developments seen in WG and Old French cannot be considered in isolation from each other, and neither can be understood without reference to Celtic substratal influence.

## 4. N/A-PL/-ocs/ in Northerly WG

It has never been explained why $\mathrm{N}-\mathrm{WG}$ shows $/-\mathrm{s} /$ in the $\mathrm{N} / \mathrm{A}-\mathrm{PL}$ of $\mathrm{M} / \mathrm{a} /$-stems. And it has always been ignored that N-WG, as it spread SW into territory formerly belonging to other forms of IE, re-developed a plural ending that was widespread in older IE. If we set aside for a moment the evidence of WG, which is the disputed case, it is clear that the N-PL of M thematics should have become /-כzz/, from late PIE /-oos/ </-oes/. The N-PL and A-PL of F thematics (along with the G-SG) should have become /-ovz/, in this case from late PIE /-aas/. (Reasons to think that the expected third vocalic mora was somehow lost, due to early development of $/ \mathrm{a} /$, were given in the section 3.1.) As with the G-SG of F thematics, non-WG retains the expected syncretisms unaltered except by regular sound-change, Gothic with /-oos/ and Norse with /-ar/ (Wright [1910]1954, 85, 90; Gordon [1927]1957, 283, 285), and the question is why N-WG does not do the same.

Developments are complicated by the fact that the N/A distinction in PLs was, except for a few archaisms in the F thematics of EWS (Campbell 1959, 234), completely lost in WG (Prokosch 1939, 241, 244; Cowan 1961, 36; Bremmer $2009,60,62$ ). Accordingly it is necessary before proceeding to reconstruct the situation in WG before this loss. The forms seen in WG point back to two Vs, one short (as in Anglian OE $/-\mathrm{e} /</-\mathrm{a} /$ ) and one long (as in non-Anglian OE $/-\mathrm{a} /</-\mathrm{oo} /$ ). Since 1 ) a short V would make more sense before $/-\mathrm{nz} /$ than before $/-z /, 2$ ) the form with a short V occurs only as an accusative in EWS (Campbell 1959, 234), and 3) the evidence of non-WG shows that the form with a long V is older, it seems clear that a new F A-PL was created by simply throwing the M A-PL/-onz/ into the breach. It is worth noting that the later falling together of N-PL and A-PL in WG may well be due to Celtic influences (later than those posited below), since thematic N-PL forms in Celtic were (before the M ending was replaced by a pronominal form) the same as A-PL forms: /-uus/ </-oos/ in M thematics and /-aas/ in F thematics (Stifter 2006, 43, 59).

The reason that the origin of A-PL $/-\mathrm{s} /$ remains an unsolved problem is that the proposals that have been made to date make little sense. Final stress would be $a d$ hoc. Ringe and Taylor's idea (2014, 162-163) that $/-\mathrm{s} /$ is not plural $/-\mathrm{s} /$, but rather somehow the same element as $/-\mathrm{s} /$ in PDE "this" and NHG "diese", just goes to show that desperate situations do indeed produce desperate expedients. Little better is the idea is that the forms seen go back to a double plural /-ovs-ez/
(Hogg and Fulk 2011, 11-12). (The tri-moraic V posited by Hogg and Fulk, which is without morphological warrant, has above been replaced by a bi-moraic V of the normal kind.) But as Ringe and Taylor $(2014,116)$ note, a double plural is not independently evidenced, and would have no clear motivation.

Arguments in favor of /-כวs-દz/ are wholly dependent on the plausibility of double plurals. But this leaves quite a lot to be desired. Though double plurals occur in Vedic and Avestan (Sihler 1995, 261), literally all of our evidence on these languages comes from poetry, where if a double plural fit the meter a single plural would not. Such double plurals are almost certainly artificial creations motivated by metrics. Furthermore, double plurals in Vedic represent only about $1 / 3$ of such forms, so that it is not as if double plurals have actually replaced single plurals, which is what is posited for WG. The one double plural from outside of Indo-Iranian that Sihler $(1995,261)$ cites, "herring boxes without topses" from "Clementine", is also from poetry, and occurs in a situation where a single plural would spoil the meter (and the rhyme). In Dutch cases like "tenen" 'toes', medial $/ \mathrm{n} /$ was long ago reinterpreted as belonging to the SG (Donaldson 1983, 164-165). If no better examples than these can be brought forth, there is no good reason to believe that double plurals are a naturally occurring innovation in human language.

Though it is traditional to posit that the change of $/-\mathrm{z} /$ to $/-\mathrm{s} /$ occurred in N-PL/-כvz/, there is no compelling reason to do so, and it also works, as is rather casually suggested by Ellis $(1966,29)$, to posit that /-s/ developed in A-PL /-onz/. New /-ons/ would regularly become /-כos/, later appearing as /-as/ in OE and as $/$ os/ in OS. ${ }^{8}$ The obvious question is why it would strike anyone as a good idea to change $/-\mathrm{onz} /$ to $/-\mathrm{ons} /$. A different version of the same question, no easier to answer, is not avoided by going back to the idea that the change was really $/-\mathrm{oz} /$ to $/-כ ว s /$. As a century or two of futility has shown, there is no reason that changing /-onz/ to /-ons/ would seem like a good idea to native speakers of Germanic.

The only remaining possibility, of course, is that it seemed like a good idea to non-native speakers of Germanic. As has been noted, the development of plural $/-\mathrm{s} /$ in $\mathrm{N}-\mathrm{WG}$ created an areal resemblance to other IE languages with plural /-s/. Though the fact that N-WG winds up patterning with Latin/Romance and Celtic in having plurals with /-s/ has long been implicitly dismissed as merely coincidental, we have just seen reasons to doubt that. The linguistics of this case will work only if the requisite non-native speakers were speakers of an IE language that had A-PLs in /-ns/, but not in /-nz/. Though Latin/Romance does not qualify in this regard, Celtic does. According to Stifter (2006, 43, 59), there was a time when Celtic had /-ons/ in the A-PL of M thematics but /-aas/ in the F-PL of F thematics. It also had /-ans/ in C-stems (Stifter 2006, 47). The WG analogues of these would have been M thematic /-onz/, F thematic /-onz/, and C-stem /-unz/. Only in the case of M thematic /-onz/ is there any close similarity between Celtic and Germanic. (In unstressed position before a nasal, the difference between Germanic / $/$ and Celtic /a/ would not prevent recognition of cognate morphology.)

Thus "correction" of /-onz/ to /-ons/ would have been motivated in M thematics, but not elsewhere. As the innovation in question seems to require external influences being rather strong, it would be more likely to occur in N-WG.

A good question is whether the scenario proposed might have some unwanted side-effects. In theory, alteration of $/-\mathrm{nz} /$ to $/-\mathrm{ns} /$ might also be expected with /i/-stems, /u/-stems, and C-stems (which had A-PL /-unz/) in Germanic, since Celtic had/-ins, -uns/ as the A-PL of/i, u/-stems. But in WG the A-PL forms of /i/-stems and /u/-stems could well go back to the N-PL (Ringe and Taylor 2014, 375; Hogg and Fulk 2011, 39, 48), so that there can be no decisive evidence on this point. The fact that Gothic /futu/ 'foot' and /tunӨu/ 'tooth' were transferred from the C-stems to the $/ \mathbf{u} /$-stems/ does indeed provide good evidence that C -stems once had A-PL/-unz/. But the widespread syncretism of A-PL and N-PL in Germanic must have had a starting point, and as the C-stems of older Germanic never show any contrast between A-PL and N-PL (Prokosch 1939, 249, 250, 257), it seems probable that the starting point was in C-stems. Though Ringe and Taylor $(2014,376)$ suggest that $/-\mathrm{u} /$ in "bordwudu" (Beo 1243) is a distinct A-PL ending going back to /-unz/, it may well be an A-SG ending employed simply because (archaic) A-PL $/-o o /$ would spoil the meter. If so, the correct literal translation of the phrase is not "bright board-woods" but rather "bright board-wood". The bottom line is that there do not appear to be any unwanted side-effects.

To sum up, what happened was apparently as follows. As the ancestor of N-WG spread to the SW and was thus imposed on speakers of Celtic, A-PL /-onz/ in the M thematics of WG was identified with A-PL/-ons/ in the M thematics of Celtic. To the Celtic mind, $/-z /$ (which did not exist in Celtic) appeared to be wrong, and so was corrected to $/-\mathrm{s} /$. To say that it is predictable that Celtic influence would cause /-nz/ to become /-ns/ would be getting carried away. But it is at least understandable. Since otherwise we have no plausible explanation for why the change of $/-\mathrm{z} /$ to $/-\mathrm{s} /$ happened at all, much less why it happened in $W G$ only and in $M$ thematics only, it seems best to posit that this is indeed what happened.

It would be remiss not to note that the general loss of $/ \mathrm{z} /$ in WG, both after Vs and after $/ \mathrm{n} /$ (whether or not $/ \mathrm{z} / \mathrm{in} / \mathrm{nz} /$ was in N-WG lost by becoming $/ \mathrm{s} /$ ) could be due to the absence of $/ \mathrm{z} /$ (and presence of $/ \mathrm{s} /$ ) in Celtic. But to posit that $/ \mathrm{z} /$ in $/-\mathrm{nz} /$ was, just randomly, altered to $/-\mathrm{s} /$ in $\mathrm{N}-\mathrm{WG}$ but lost in $\mathrm{S}-\mathrm{WG}$, implying that any of the three other possible outcomes was just as probable, is both unattractive and unnecessary. Development of A-PL/-ons/ in N-WG seems better seen as motivated by the existence of A-PL/-ons/ in Celtic, in an area where there is independent evidence that Celtic influences were stronger than in S-WG.

## 5. The Gerund and the Present Participle with /-(i)yo-/ in West Germanic

It is a noted peculiarity of WG that its verbal nouns, instead of being limited to an infinitive with only a N/A form, as in other Germanic, developed (at least in theory) the full range of cases, and that these are based not on the old stem /-כ-/ but rather on a new stem /-yo-/ (Ringe and Taylor 2014, 79). Ringe and Taylor do not suggest a motivation for either aspect of this innovation. But Celtic influence can certainly explain the first half of this innovation and may well explain the second as well. Celtic is locally notorious for having verbal nouns that are very "nouny" in being normal abstract nouns, with no limitation on case (Lewis and Pedersen [1961]1989, 312). The development of "extra" cases in WG is thus quite plausibly seen as due to Celtic influence.

The same is quite probably true of what appears to be randomly intruded $/ \mathrm{y} /$ in /-yo-/. But this case is quite a lot more complex. First off, it may be noted that present participles in WG also developed /-y/ (Ringe and Taylor 2014, 78), automatically converted to /-iys/ by Sievers' Law, which in effect prevented contrast between $/ \mathrm{y} /$ and $/ \mathrm{i}(\mathrm{y}) /$ in many circumstances. For presentational convenience, both will (arbitrarily) be referred to as $/ \mathrm{y} /$ from here on. It must arouse some suspicion that unexpected $/ \mathrm{y} /$ develops in both present participles and gerunds. That some connection between the two was felt is demonstrated by the fact that present participles often do not show umlaut, apparently on the model of infinitives (Ringe and Taylor 2014, 78). If, as posited above (section 2), Germanic infinitives once had /-nt/, similarity of sound might be part of the answer. But whatever effects followed from similarity of sound should have applied with equal force across all Germanic, so why do we see results only in WG?

We may suspect that, in this case as in some others treated above, the answer has something to do with Celtic. Though Celtic had verbal nouns with both /-yo-/ and /-o-/ (Thurneysen 1946, 448), there is no obvious reason that Celtic influence would cause /-ว-/ to be replaced by /-yo-/ in WG. But there is an un-obvious reason: it seems that in most forms of Gallo-Brittonic (all but Cornish/Breton) the inherited gerund became regarded as also a present participle. (The cause is basically that /in/ </sind/ 'thus', which had been pressed into service as a predicate marker, was homophonous with /in/ 'in'.) Such identity occurs in English, Welsh, and (marginally) in French, in usages like "Il est parti en disent cela" ('He left saying that'). It was much more common (though evidently beginning to be restricted) in Old French, where one can find things like "par mes armes portant" 'by carrying my weapons' (Kibler 1984, 284). Since these three languages are areally adjacent but not closely related, the usual reasoning applies: where unusual resemblances occur across language boundaries, the cause is language contact. In this case, as in others that have been seen above, the only historically plausible language contact is Celtic substratal influence, leading to parallel independent innovations in English and French.

Turning back now to WG, if the present participle in WG had already developed /-yo-/, to Celts it would seem that the gerund too ought to have /-yo-/. Though obviously the two did not fall together, substratal influences can be resisted or even reversed: we have already seen that in French this happened with the reflexive/ non-reflexive distinction. In WG, modeling the gerund on the present participle would have started with /-ond-yo/ being employed in both the present participle and the gerund, followed by later re-formation as /-on-yo/ after final/-t/ was lost in the infinitive.

As for why the distribution of forms with and without $/ \mathrm{y} /$ is as it is, with $/ \mathrm{y} /$ in extra case forms but not in the infinitive, extra case forms and intrusive $/ \mathrm{y} /$ would at first have been associated with Celtic-accented speech, so that they would become associated with each other. By contrast, the use of the inherited N/A form without / y / would be characteristic of non-accented speech. The result would be extra cases in /-yo-/ opposed to the N/A in /-on/.

It seems then that all three of the unexpected developments seen in WG, 1) creation of "extra" case forms for the infinitive, 2) intrusion of $/ y /$, and 3 ) the distribution of forms with and without $/ \mathrm{y} /$, can be explained as being due to Celtic substratal influence.

## 6. Generalization of /-an/ in the /n/-stems of Anglo-Frisian

It must be stressed that this case is fundamentally different from the ones that have been treated above, as it involves later Celtic influences limited to AngloFrisian (AF).

It is a peculiarity of AF that it has streamlined the declension of $/ \mathrm{n} /$-stems by always having /a/ ( $>/ \mathrm{a} /$ in F) before $/ \mathrm{n} /$ (Hogg and Fulk 2011, 53; Ringe and Taylor 2014, 163-164), except for some early archaisms and G-PL/-ena/, which is clearly secondary. Ringe and Taylor describe this development as "obscure" (as in having no clear explanation). The treatment given by Hogg and Fulk (2011, $52-54)$ seems to show embarrassed silence as to why AF does not show variations of the sort seen in all other Germanic languages textually attested before the year 1000. It seems that there was in AF a stronger motivation to regularize the paradigm of $/ \mathrm{n} /$-stems than existed in other Germanic. But the conventional wisdom says nothing about what that motivation was.

The difference between AF and other WG can be attributed to additional Celtic influences consequent upon N-WG spreading to Britain. ${ }^{9}$ An obvious consideration is that secondary acquisition tends to promote regularization. But since Old English (unlike Middle English) does not in general show reduced morphology in comparison with other Germanic languages of its time, there must have been some additional factor that caused the $/ \mathrm{n} /$-stems to be singled out for special treatment. This is not hard to find. According to Stifter $(2006,209)$, Celtic had (except in the
vocative) an unvarying V before $/ \mathrm{n} /$ in its (non- N ) $/ \mathrm{n} /$-stems, and that V was $/ \mathrm{o} /$, actually attested in Gaulish (Lambert 1994, 61). Both 1) the lack of variation in the Celtic paradigm, and 2 ) the similarity of sound between/on/ in Celtic and /an/ would have favored generalization of /an/ in the $/ \mathrm{n} /$-stems of early AF. What was different about AF was that in Britain it was brought into renewed contact with Celtic, and what was different about the $/ \mathrm{n} /$-stems was that their paradigm was, compared to its clear Celtic analogue, very irregular.

## 7. Conclusion

The major conclusions reached above are as follows. A prefatory conclusion was that the Pre-Germanic IE language of the Low Countries and Westphalia was an early form of Celtic. Because language shift in this area took longer than in the area of S-WG, Celtic influences are significantly stronger in N-WG than in S-WG. Loss of $/-\mathrm{n} /$, most notably in an analogical M N -SG $/-$ oon/, happened after loss of final $/ \mathrm{m} /$ and after apocope/shortening. Nothing is gained by positing tri-moraic /כבכ/ in the M M-SG of /n/-stems or common loss of final nasals. The rule of identity between the F-N-SG and N N-SG in /n/-stems is due to the first N -SG of $\mathrm{F} / \mathrm{n} /$-stems (which were created after apocope/shortening), having been /-un/, not distinct from N/A-SG/-on/ in Ns. The reason that the reflexive/non-reflexive distinction was partially lost in S-WG and Romance and totally lost in N-WG is that all three branches were subject to substratal influences from Celtic, where the reflexive/non-reflexive distinction was completely absent. In all WG, the G-SG of the F personal pronoun adopted the form of the D-SG, as part of an abortive attempt to save the reflexive/non-reflexive distinction by expressing this indirectly, through external possession. From the personal pronoun, the new G-SG spread to other F thematics. Non-3 ${ }^{\text {rd }}$ singular pronouns in (some) N-WG got rid of accusative /-k/ and employed the accusative as a common accusative/ dative due to substratal influences from Celtic, where non- $3^{\text {rd }}$ singular pronouns (/me, te/) had a common accusative/dative, identifiably cognate with its analogues in WG. (A similar process happened in Old French.) A second wave of the same process happened much later in Anglian OE. N-WG develops plural /-s/ in M thematics because $/-\mathrm{nz} /$ in the A-PL of M thematics was "corrected" to /-ns/ during secondary acquisition by Celts, whose language had A-PL/-ns/ but not A-PL/-nz/. The infinitive in WG developed "extra" cases because verbal nouns in Celtic had a full range of cases, and /-yo-/ spread from the present participle because the two were the same in (Gallo-Brittonic) Celtic. Generalization of $/ \mathrm{a} /$ in the $/ \mathrm{n} /$-stems of AF occurred because the result produced greater similarity to the $/ \mathrm{n} / \mathrm{stems}$ of Celtic.

It is deeply traditional among Germanicists to assume the proposition that may be expressed as "In Germanic languages, all (non-lexical) innovations are internally motivated". But this is only an assumption, not a conclusion based on
decades of open-minded investigation. There is no equation we could plug numbers into to tell us how many years we have to wait before deciding that traditional methods no longer have much chance of solving classic problems. But it does seem probable that this point has been reached. Though there are a few cases where traditional methods have recently succeeded in solving problems, all of the cases in question are minor, and several major problems ("classic" or not) remain as unsolved as ever. If some innovations in Germanic were in fact externally motivated, which is hardly improbable, it is predictable that they would become unsolved problems. Logically speaking, the converse does not apply. But practically speaking, it is difficult to see why whatever satisfactory solutions that could be discovered using traditional methods have not already been discovered. Given traditional assumptions, the only two possibilities are 1) that many generations of Germanicists, knowledgeably and intelligently applying traditional methods, have failed to find internal motivations that did in fact exist, or 2) that some innovations in Germanic occurred without having any motivation. As neither of these makes sense, the conclusion must be that at least some of the innovations of Germanic, quite probably including a few classic problems, had external motivations. The cases treated above are intended to provide some candidates.

## Notes

1 A change of unstressed $/ \mathrm{J} /$ to $/ \mathrm{u} /$ before nasals might allow preterit $3 \mathrm{PL} /$-un/ to be derived from a (re-formed) perfect ending /-ond/. It might also explain /hund/ </hond/ in numbers. The conditioning environment appears to be very weakly stressed syllables: final or later than second.
2 Though shortening (of original long Vs) must have occurred after apocope, no change that is relevant here occurred between them, so that it is convenient to regard them as the same change.
3 The nasal vowels of Old Icelandic occurred only in stressed syllables (Haugen 1976, 154).
4 On the grounds that when a language has only one V that V should be $/ \mathrm{a} /$, /a/ has been used instead of $/ \mathrm{e} /$.
5 Reasons to think that the first OE spelling systems (outside of Kent) were developed by Irish missionary linguists are given by White (2015).
6 Though Scholten's study is about Dutch, Dutch is a core member of the continental European language area.
7 Since "ich" appears in Middle English (Mossé 1952, 54), a phonological explanation for why accusatives with "-ch" do not also appear in Middle English would be difficult at best.
8 In OF, Norse-looking /-ar/ appears to be due to $/-z /$, created by later laxing of final /-s/, having been caught up in the Norse change of final /-z/ to/-r/.

9 Reasons to think that Anglo-Frisian developed in Britain are given by White (2018).

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