The binary vs. privative status of verbal inflectional morphology: The case of Germanic

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1 Background and questions to pose from a DM perspective

I argue that the binary opposition [+/–past] entails that T_{past} contrasts with T_{pres} in computing one more τ (or tense)–feature in the morpho-syntax and exhibiting one more Vocabulary Item (or marker) in the morpho-phonology. This used to be the case for all Germanic languages in their old periods but is no longer the case for Present Day English or Mainland Scandinavian.

From a broad formalist point of view, the (non-periphrastic) Present tense and Past tense in Germanic languages appear to fit particularly well with the *binary* specification *[+/–past]*, since a concrete marker or segment –namely, the dental segment– expones exclusively in Past forms and can thus intuitively be used as a criterion to characterize these as *marked* forms as compared to the Present. Identifying the Past as the morpho-syntactically *marked* form requires nevertheless to account in an exhaustive way also for the Present.

From the perspective of *Distributed Morphology* (DM), for which morphological markers or, the same, *Vocabulary Items* (VI´s), are the (morpho-phonological) output of the computation of (morpho-syntactic) features, Present and Past forms in a language like Present Day English (PDE) are equally characterized as *[+/–past]*. One aspect that DM highlights (Halle & Marantz 1993) is the mismatch between morpho-syntax and morpho-phonology that could be argued to exist between Present and Past forms in the language since, aside from the stem, the VI that is overtly realized is the output of a tense feature (τ) in the case of the Past (the cited dental segment) while it is the output of an agreement feature (φ) in the case of the Present (the segment typically or traditionally referred to as *subject agreement ending*): note *deem-s* vs. *deem-ed*. The way that this mismatch is accounted for is by invoking a process of *fusion*, which would be additionally preceded by *impoverishment* in the case of the Present. See Table 1 below. Incidentally, in order to save space in this abstract, reference is only to regular pasts for all languages cited; further, allomorphy of the dental segment is not relevant for the argumentation and is therefore obviated. I do not use here phonetic transcriptions.

Table 1. Segmentation for Present and Past forms in PDE previous to *fusion* (DM generalized account)

	Present Indicative of *deem*	Past Indicative of *deem*
1sg	deem-Ø-Ø **STEM-τfeature-φfeature**	deem-ed-Ø **STEM-τfeature-φfeature**
2sg	deem-Ø-Ø	deem-ed-Ø
3sg	deem-Ø-s	deem-ed-s
Pl	deem-Ø-Ø	deem-ed-Ø

In effect, in order for the morpho-syntax to be (initially) symmetric, Halle & Marantz (1993) postulate a mechanism of impoverishment as applying in the Present: note the Ø–segment in medial position, which means that there is a τ–feature for the Present, in a symmetric way to the Past, though this morpho-syntactic feature is bound to have no morpho-phonological realization. Turning to the Past, the segment that would correspond to the φ–feature is added, this time in a symmetric way to the Present. Subsequently, the very impossibility of **he/she deem-ed-s* leads to positing *fusion*, which consists in that only one VI will be inserted for both τ–features and φ–features, the other being obliterated: the VI

or output of corresponding τ–features is cancelled out for the Present and the VI or output of corresponding φ–features is cancelled out for Past forms. Incidentally, it must be clarified that it is fusion of *heads* that the authors specifically refer to: as is widely known, Early Minimalism inherits the hierarchical sentence structure of the GB period where Agr(eement)P(hrase) and T(ense)P(hrase) are both canonical projections, and where the checking or computation of agreement or φ–features ([person] and [number]) corresponds to the Agr head and that of tense or τ–features (above-cited [+/–past]) corresponds to the T head. The subsequent generalized consensus in the literature on the rejection of an Agr projection proper in the process of derivation of syntactic structures leads to the likewise generalized account of T as the head in charge of the computation of τ–features and φ–features (Chomsky 2000, 2001; Pesetsky & Torrego 2004/2007 or quite recently e.g. Bjorkman & Zeijlstra 2019). Having said this, the core of the analysis in Halle & Marantz (1993) remains: that is, only one type of feature –either τ–features or φ–features– expones in the English morpho-phonology, at the cost of the other.

Table 2. Segmentation for Present and Past forms in PDE after *fusion*

	Present	Past
1sg	deem-Ø	deem-ed
2sg	deem-Ø	deem-ed
3sg	deem-s	deem-ed
Pl	deem-Ø	deem-ed

I would like to argue that it is necessary to raise the following questions or issues in connection with the account in Table 1:

(1) It is not clear in what sense it is to be concluded that a morpho-syntactic [+/–past] feature is available in PDE. That is, in what sense are Past forms *marked*, rather than Present forms? Now, maybe it is implicitly assumed that it is *exclusively contrastive* values and not *marked* values that are involved, which should mean that Present and Past forms are the result of the computation of two *privative* (or also *unary*) features, rather than a *binary* feature, a description that is actually the one I defend for PDE in this proposal. But the focus must be put on the account or analysis proper in Table 1. And in this sense, I would like to argue the following.

(2) It does not seem to be explanatory to start by assuming a *symmetric* status for the Present and the Past when a situation of *asymmetry* can be at stake, that is a situation where the number of morpho-syntactically active features can be bigger for one of the elements in the relevant opposition, and as a result of this, the number of realized segments or VI´s.

(2bis) Regarding specifically impoverishment (or otherwise a rule of *obliteration*, as in Arregui & Nevins (2012) or the *pruning* of a T head, as in Embick (2015)), this can be indeed an impeccable mechanism for other situations, but for it to be presented as the cause of a non-realizational *default* appears to be fully *ad hoc*.

(3) It does not seem to be explanatory to assume an *-s* marker for 3 person sg in the Past (Table 1), it being the case that there are (Germanic) languages where subject agreement markers are different for the Present and the Past. Incidentally, as I defend in my research, this is the case for languages descending from Proto-Indo-European in general and it plays a major role in the account I defend here (see (B) in Section 2 below).

(4) If the account in Table 1 is applied to a language like German (or also Icelandic, or Frisian), and it being the case that the segmentation for Past forms is as in *kauf-te-Ø* ('I bought') (as generally assumed), then it would be so expected that impoverishment is implemented on Present forms, with a result as in *kauf-Ø-e* ('I buy'). I do not think this is explanatory because of the reasons in (2) and (2bis) above, and because of (B) in Section 2 below.

(5) If the account in Table 1 is applied to a language like Danish (or also Swedish, or Norwegian), there is the additional issue of resolving first whether the segmentation for Past forms is as in *hør-t-e* or otherwise as in *hør-te* ('I/…heard'). Then, on the cited symmetric account (which, as I say, does not seem to be explanatory enough) Present forms will either be *hør-Ø-er* (with impoverishment) or *hør-er* ('I/…hear') (without it).

2 Present proposal

I would like to argue that for *[+/–past]* to be the expression of *morpho-syntactic binarity* in Germanic languages (and, in ongoing research, in languages descending from PIE) entails that Past forms are *marked* in the sense that *one more formal feature* is active in their computation as compared to Present forms, and *one more segment or VI* is spelled out in the morpho-phonology. Within Germanic, I argue that languages like German, Icelandic or Frisian do compute the cited *binary* T_{pres}/T_{past}, whereas PDE on the one hand and Present Day Mainland Scandinavian on the other do compute a *privative* T_{pres} and a privative T_{past}. The account defended is both cross-linguistic and diachronic. Parting from (1)–(5) above, the basic line of argumentation is as follows:

(A) The account defended is both cross-linguistic and diachronic, since it is the case that Present Day German (or Icelandic…) exhibits a segmentation of VI´s that can be considered to be identical to the segmentation of all Germanic languages in their old periods.

(B) The cited segmentation consists, as regards Past forms, of the (widely-known) dental marker or VI which can be arguably uncontroversially be analyzed as the output of a τ–feature with the interpretation [past], plus the so-called subject agreement ending which, in a crucial way, *I defend must be analyzed also as a τ–feature*, though it is a τ–feature that is a kind of *portmanteau* since it combines φ– and τ–interpretation. I refer to this feature as an *AgrT–feature*. The content of φ–interpretation is [person] and [number] as standard. The content of τ–interpretation, which is why it must significantly be analyzed as a proper τ–feature, is *[morphological distinctiveness both within and across the Present and the Past]* (see (3) in Section 1 above). This takes us to Present forms, which consist (aside from the stem) of just this subject agreement ending, that is an AgrT–feature with the content [present]. Past forms result therefore from the computation of a double(d) τ–licensing as compared to Present forms. Consider the unanimous segmentation to the left of the arrow for all cases in Table 3 below. (I assume general tenets of DM relative to the *Subset Principle*, the *Elsewhere condition* and also *Fusion* – though no *Impoverishment*. And I assume core principles of the *Agree* framework (Chomsky 2000, 2001; Pesetsky & Torrego 2004/2007) in connection with the licensing of τ–features and φ–features.)

Table 3. Diachronic development of morpho-syntactic features on the present account

English	→diachronic change: first half of 18th cent.
(Present) stem - **[+present]AgrT-feature**	→ stem - **[present]τ-feature**
(Past)   stem - **[–present]AgrT-feature - [past]τ-feature** → stem - **[past]τ-feature**
Danish, Swedish, Norwegian	→ diachronic change: first half of 17th cent.
(Present) stem - **[+present]AgrT-feature**	→ stem - **[present]τ-feature**
(Past)   stem - **[–present]AgrT-feature - [past]τ-feature** → stem -**[past]τ-feature**
German, Icelandic, Frisian	
(Present) stem - **[+present]AgrT-feature**	→ no diachronic change
(Past)   stem - **[–present]AgrT-feature - [past]τ-feature** → no diachronic change

(C) The evidence that I provide for the active computation of the AgrT–feature in the old stages of English and Mainland Scandinavian and its demise in the first half of the 18th cent. and the 17th cent., respectively, relates to the phenomenon of so-called V-to-T movement: it is when T_{pres} and T_{past} stop contributing a binary opposition (in the morpho-syntactic way defended here) that these languages stop being V-to-T and become V-*in situ*. Note the identical segmentation to the right of the arrow for these

languages, irrespective of the major role played by the Ø-VI in English as opposed to Danish. The last two-column division in each of the Tables below is one where the so-called subject agreement endings no longer interpret *[morphological distinctiveness both within and across the Present and the Past]*.

Table 4. Historical development of the morpho-phonology of the [AgrT]–feature for English

	OE		Late ME (c. 1400)		EMnE(c.1500→1700)		1700→PDE	
	Present	Past	Present	Past	Present	Past	Present	Past
1sg	-e	-e	-Ø/-e	-e/-Ø	-Ø	-Ø	-Ø	-____
2sg	-e(st)	-(e)st	-st	-st	-st	-st	-Ø	-____
3sg	-eþ	-e	-th/-s	-e/-Ø	-th/-s	-Ø	-s	-____
Pl	-aþ	-on	-n/-s/-th	-e(n)	-Ø	-Ø	-Ø	-____

Table 5. Historical development of the morpho-phonology of the [AgrT]–feature for Danish

	Middle Danish (1300)		Early Modern Danish (1500)		1600 → PD Danish	
	Present	Past	Present	Past	Present	Past
1sg	-e(r)	-e	-er	-e	-er	-e
2sg	-er	-e/-(s)t	-er	-e	-er	-e
3sg	-er	-e	-er	-e	-er	-e
1pl	-e/-um	-e//-e/-um	-e	-e	-er	-e
2pl	-e	-e	-e	-e	-er	-e
3pl	-e	-e	-e	-e	-er	-e

2.1 A more detailed description of the historical case for English (…)

2.2 A more detailed description of the historical case for Mainland Scandinavian (…)

2.3 A more detailed description of the historical case for German, Icelandic, Frisian (…)

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