

Finiteness: The *haves* and the *have-nots*¹

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The lack of overt inflectional markings encoding finiteness is a crucial difference between Present Day English (PDE) and modern Mainland Scandinavian languages (MSc). In contrast to previous analyses, our approach considers finiteness a primitive distinction explicitly expressed in verbal forms and, crucially, cutting across tense, mood, and agreement markings. Middle English (ME), like MSc, encoded finiteness. MSc languages have retained the encoding of the finiteness distinction in spite of the loss of mood and agreement markings, but PDE main verbs have lost this distinction (although they have tense and agreement markings). This loss leads to a range of syntactic differences between MSc and PDE, such as *do*-support, different auxiliary-main verb splits, and the lack of V2 in PDE.

1. Introduction

Discussions of finiteness features in natural language usually start out with the observation that the term *finiteness* is used to cover many different (albeit partly overlapping) concepts. Some authors have also suggested that the term is not amenable to a theory-proof definition (Koptjevskaja-Tamm 1994). As Cowper (2002: 1) states, “The term ‘finite’ has been used in the grammatical literature for centuries, but its meaning is difficult to pin down.” However the term is used, most authors agree that the two occurrences of *be* in (1) are non-finite, whereas *is* is finite.

- (1) To be or not to be – that is the question.

Nikolaeva (2007: 1 ff) offers an informative overview of the origins and uses of the term: she explains that the term *finite* in European linguistics goes back to the Latin *finitus* in the sense of ‘referring to a particular person’. The term was first applied to personal pronouns and later to “verbs expressing person and number.” Still later, tense is taken into account, and today the typical diagnostic for finiteness is the presence of morphologically expressed tense and agreement features on the verb.

The main objections to this view are easily recognized. The first one is the lack of universality: not all languages express agreement or tense features overtly (i.e. morphologically) and, even in languages that do, verb forms such as the imperative are considered finite even if there are no tense or agreement markings. Even if T(ense) and AGR(ement) features are considered to be covertly present in these ‘finite’ syntactic domains, T and AGR features are not always indicators of finiteness. There are languages that employ agreement features in what are obviously non-finite domains (e.g. inflected infinitives in European Portuguese); also, semantic and morphological tense distinctions are found with non-finite verbs (e.g. Latin infinitives). These facts have caused some authors to give up on isolating the specific contributions of finiteness. Adger (2007: 58), for instance, states that since the canonical markers of finiteness T and AGR are not confined to the topmost layers of the clause, but may appear “very low down” (i.e. in the VP), we may conclude that “there is no clear mapping from the traditional notion of finiteness to the categories of formal grammar.”

The most widespread view in Principles and Parameters Theory (P&P), even in the most recent approaches, maintains that finiteness is a binary category which, in addition to controlling the realization of the subject argument and creating domains opaque to certain syntactic processes, regulates the tense and agreement features on the verb (Nikolaeva 2007: 6). When morphologically expressed, these features are considered reliable indicators of a finite domain; when these features are not overtly realized, we could be dealing with a) a finite domain with only abstract (i.e. covert) T and AGR features, or b) a truly non-finite domain. Likewise, overtly realised T and AGR markings in non-finite domains are sometimes claimed to be subject to

operations that ‘cancel them out’ under certain conditions, i.e. make them count as syntactically non-finite, as in ‘finite control constructions’ like Balkan embedded subjunctives, cf. Landau (2004). This means that current P&P theory accepts that there exist ‘finite’ verbs with no T or AGR marking and ‘non-finite’ verbs with T, AGR, or both. Although there clearly is no one-to-one correspondence between overtly realized T-AGR and finiteness, this approach to finiteness still appeals to inflectional criteria.

There are also distributional criteria for finiteness: finite verbs occur in independent contexts and non-finite ones in dependent contexts. That would mean that only finite verbs can head independent utterances, and each independent utterance can have one and only one finite verb.² Counterexamples to such criteria are the so-called Mad Magazine Sentences in (2), where seemingly non-finite verbs are the only verbs in independent utterances (Akmajian 1984; Siegel 1987). I will present additional evidence that such sentences are truly non-finite (section 3.4; cf. also Grohmann 2000).

- | | | | |
|-----|----|---|---------------|
| (2) | a. | John eat caviar? (I thought he hated the stuff.) | Siegel (1987) |
| | b. | <i>Jeg ikke drikke øl på en fredag? (Særlig.)</i>
I-NOM not drink-INF beer on a Friday? As-if
‘Me not drink beer on a Friday? As if.’ | Norwegian |

Even definitions that rely on distributional criteria consider finiteness a binary category with the values *dependent* and *independent*. In functionalist frameworks, however, finiteness is often seen as a scalar phenomenon signalled by a number of features combining to yield a specific degree of finiteness on a scale. These features are tense, modality, and aspect markers, grammatical agreement, case markings on the subject and object, articles, determiners, and topic markers (cf. Givón 1990: 853; Bisang 2001: 1401-2).

The controversies do not end here. In all approaches considered so far, finiteness could be considered a purely syntactic category or a combination of purely syntactic categories. Some authors, however, side with Barron (2000: 2), who claims that finiteness “rather than being a morphosyntactic category ... is a semantic category related to time.” Most generativists would probably agree with Platzack (1998: 371) that finiteness is a syntactic category with obvious semantic effects (e.g. instantiated by uninterpretable and interpretable features), and many functionalists would agree with Gretschek and Perdue (2007: 433) that finiteness must be analysed from structural as well as semantic and pragmatic points of view.

It seems uncontroversial that finiteness is accompanied by specific morphological markings (in the languages to be considered here, the markings typically appear on the verb); that it has syntactic characteristics (with regard to subject licensing and the V2 effect in relevant languages); and that it gives rise to specific interpretation effects (Platzack 1998: 371, for instance, advocates the assumption that finiteness expresses the anchoring of the clause in time and space). The observations mentioned so far constitute the necessary background for advancing a different approach to finiteness. Crucially, we emphasize that finiteness must be distinguished from tense. Holmberg and Platzack (1995: 23) argue that although finiteness is a prerequisite for tense, it is not identical to tense since there are untensed finite verbs (imperative) as well as non-finite tensed verbs (past participles).

2. A different approach

The present approach to finiteness emerges from Comrie’s (1985: 36) observation that in natural languages we find examples of *absolute* and *relative tenses*. Absolute tenses (such as the preterit) take the moment of speech as their deictic centre and relative tenses (such as participles) take some other contextually-given time point as their point of reference. While in many languages specific verb forms encode the distinction between absolute and relative tenses, I argue that there are also languages where the same verb form is used for both. The context

indicates whether the tense should be interpreted relative to the moment of speech (absolute interpretation) or relative to the previous verb (relative interpretation). The structurally highest verb or TMA marker in a verbal chain takes on the meaning of an absolute tense; the next verb takes the previous verb (or TMA marker) as its point of reference and yields a relative temporal reading. Note that the form of the verb remains the same in the absolute and relative function in the sentences in (3) from Capeverdean Creole (Baptista 1997).

- (3) a. *El ta sta na kaza.*
S/he FUT be at home
'S/he'll be at home.'
- b. *El sta kume.*
she be eat
'S/he is eating'
- c. *N kume tudu katxupa.*
I eat all katxupa
'I ate all of the katxupa.'

What I describe as the lack of formal distinctions between absolute and relative tense forms has been considered a lack of formal finiteness distinction in the literature on Creoles, e.g. Muysken and Law (2001). According to Romaine (1993: 62), Creoles typically lack non-finite verb forms, i.e. they use the same form in finite and non-finite functions. In most Germanic languages, however, the finiteness distinction is morphologically encoded. I argue that even in Germanic languages this distinction between finite and non-finite verb forms corresponds to the distinction between absolute and relative tense forms.

As Comrie (1985: 48) observes, most European languages³ have only a two-way split in the tense systems, past vs. non-past, "with subdivisions within non-past (especially future as opposed to the present) being at best secondary; thus the so-called present tense in such languages is frequently used for future time reference." Pairing this assumption with my claim that the absolute-relative distinction equals the finiteness distinction in the relevant languages, we arrive at the paradigm in (4) for the garden variety Germanic language. Here, each and every verb form encodes a tense element consisting of two pieces of information: [\pm Past] and [\pm Finite]. In this analysis, being tensed is an essential part of being a verb (present participles are adjectival, cf. Faarlund et al. 1997: 119).

(4)

	+Finite	-Finite
+Past	Preterite	Participle
-Past	Present	Infinitive

I will argue that whereas the Mainland Scandinavian languages adhere to the paradigm in (4), in English this paradigm has collapsed into two two-way paradigms, both of which have lost the finiteness distinction. Hence, Present Day English main verbs are (productively) inflected according to the paradigm in (5a), whereas modals and the auxiliary *do* inflect according to the paradigm in (5b). In fact, the only verbal elements in English still adhering to the non-collapsed paradigm in (4) are the auxiliaries *have* and *be* (a more detailed discussion of the paradigms of *have* and *be* follows in section 3.6).

(5) a

+Past	Preterit/Participle
-Past	Present/Infinitive

b

[+Past, +FIN]	Preterit
[-Past, +FIN]	Present

Whereas many theories in formal linguistics conceive of tense as a semantically (and in a sense syntactically) autonomous element tied to a specific position in the clause, the present theory claims that all verbs are inherently tensed.⁴ There is thus no reason to assume that certain verbs (such as infinitives or epistemic modals) are immune to tense marking since tense is part of the definition of being a verb (at least for the languages presently under consideration). Of course, the expression of *finiteness* is sometimes tied to specific positions in a clause, e.g. to the V2 position of root clauses in V2 languages; as emphasized earlier, however, finiteness is not tense. Instead, I will argue that finiteness has much in common with pronominality: finiteness in the verbal domain behaves like pronominality in the nominal domain. If these claims have merit, one would also expect there to exist verbal tense forms that behave like anaphors. This is exactly the idea pursued in Eide (2007), where I argue that finite and non-finite tense elements are subject to the principles of Binding Theory. In languages productively employing the finiteness distinction (Mainland Scandinavian), finite forms (absolute tenses) behave like temporal pronouns and non-finite ones (relative tenses) like temporal anaphors.⁵

An anaphor requires a local, c-commanding antecedent,⁶ and the typical non-finite verb also requires a local, structurally higher verb to which it relates temporally. A pronoun, in the words of Apollonios Dyskolos of Alexandria (2nd century AD), quoted in von Heusinger (2002), is either deictic or anaphoric.⁷ The same is true for a finite tense element. In the deictic case, a finite tense element finds its point of reference in the immediate context, usually the moment of speech *S*.⁸ In the anaphoric case, the finite tense element relates to a salient, linguistically expressed element, e.g. a verb in a preceding clause. This is what happens in sequence-of-tense constructions and presumably also in the ‘historic present’.

A final point helps illustrate the similarities between temporal and nominal pronouns and anaphors. As illustrated by the Capeverdean Creole data in (3), in a language without a finiteness distinction the same form can be used in finite and non-finite environments. This has a counterpart in the nominal domain: in certain Romance languages, e.g. European Portuguese, in 1st and 2nd person accusative, the same clitic form can be used as an anaphor or a pronoun, depending on the context, as shown by the paradigm in (6).⁹

(6)	Acc. pronoun (cl.)	Acc. anaphor (cl.)	
	<i>me</i>	<i>me</i>	me/myself
	<i>te</i>	<i>te</i>	you/yourself
	<i>o</i>	<i>se</i>	him/himself
	<i>a</i>	<i>se</i>	her/herself
	<i>nos</i>	<i>nos</i>	us/ourselves
	<i>(vos)</i>	<i>(vos)</i>	you/yourself (rare)
	<i>os</i>	<i>se</i>	them (m)/themselves
	<i>as</i>	<i>se</i>	them (f)/themselves

Most main verbs in Present Day English are like the Capeverdean Creole verbs in (3): they do not encode an overt distinction between finite (pronominal) and non-finite (anaphoric) forms (except for 3rd person singular). This is similar to the ambiguous nominal forms in (6): only the context indicates whether the form is an anaphor or a pronoun.

In this paper, I will advance two major claims. I will argue that the finiteness distinction amounts to a morphologically encoded distinction between absolute (pronominal) and relative (anaphoric) tense forms. I will also argue that the loss of the morphologically encoded finiteness distinction in main verbs caused Present Day English syntax to be dramatically different from the syntax of Middle English and that of Mainland Scandinavian. Section 3 fleshes out the underpinnings and the consequences of the latter claim.

3. The finiteness distinction and its consequences

Unlike Creole languages and Present Day English, Mainland Scandinavian languages (MSc) productively encode finiteness with all types of verbs; any verb form in MSc is inherently specified with respect to finiteness (i.e. ‘pronominality’). A [+Finite] form like *spiser* ‘eatPRES’ or *spiste* ‘ate’ has distinct morphology to show that it is an absolute tense form; no context needs to be provided to determine this. Likewise, *spise* and *spist* are unambiguously non-finite, infinitive and past participle, respectively, regardless of the context. In contrast, an out-of-context main verb in English, e.g. *love* or *loved*, could be either an absolute or a relative tense form. *Loved* could be either a preterit or a participle, *love* either a present or an infinitive; in fact, *love* could even be a subjunctive or an imperative. Just like in the Creole languages discussed earlier, the context will disambiguate the English tense form; the tense element of the structurally highest verb takes on the function of absolute tense, even when the verb is not morphologically specified for finiteness. Thus, the difference in the construal of temporal chains in MSc and English boils down to the fact that in the typical MSc temporal chain the structurally highest verb is obligatorily [+Finite] morphologically. In the corresponding English temporal chain, the structurally highest verb takes on the absolute interpretation, but there is no requirement for a morphologically [+Finite] verb, except for certain contexts discussed later. Otherwise, the forming of the temporal chain proceeds similarly in MSc and English: each verb links up to the previous event in the chain, taking the previous verb (or event) as its point of temporal reference (cf. Eide 2007 for details).

This difference between MSc and English could be an accidental fact of syncretism and need not point to any profound differences between the two languages. However, as I will demonstrate in the sections that follow, the ways in which finiteness is instantiated in MSc and English give rise to a number of syntactic differences between these languages as well as between Middle English (ME) and Present Day English (PDE). Once the morphological differences are observed, a number of syntactic differences fall out. To a linguist, this is always a most welcome result.

3.1. Verb second and verbal inflection

All Germanic languages except Present Day English have generalized verb movement to the second position of the clause in declarative main clauses. According to McWhorter (2005: 287; quoting Hopper 1975: 82), the general consensus is that verb second, V2, was a Proto-Germanic feature. Until approximately the fifteenth century, i.e. throughout Old English (OE) and into Middle English (ME), English had generalized V2 (Roberts 2007: 58; among many others). At some point, the V2 rule ceased to be obligatory; in Lightfoot’s (2006) terms, the cue for V2 (which he formulates as $_{CP}[XP \text{ } _cV]$) becomes an optional, not obligatory, grammatical trait for new native speakers. In Present Day English, verb second is ungrammatical with main verbs in most of the contexts where it was (nearly) obligatory in OE and ME. In certain structures, such as non-subject root *wh*-clauses, a ‘residual V2’ is still obligatory (cf. Rizzi 1990a), but it is instantiated by specific auxiliaries instead of main verbs. We will discuss these structures in sections 3.4 and 3.5.

There have been many attempts to explain what caused this syntactic change in English and to relate it to other, preferably morphological, changes in the verbal paradigm. To explain the relationship between loss of agreement and loss of V2, Roberts (1985: 32) suggests that “obligatory [V2] movement of main verbs should apply to languages with rich agreement systems only.” However, the data from MSc are at odds with this claim: MSc languages have obligatory V2 with main verbs, but less agreement than English; in fact, MSc has no agreement at all in the relevant contexts. Roberts (1993: 120) modifies his earlier claims, emphasizing the difference between English and MSc as regards infinitival endings: MSc has retained and

English has lost distinct infinitival endings, so the infinitive in English (unlike in MSc) is non-distinct from the imperative and many other verb forms.¹⁰

Noting that the loss of V2 is generally linked to the erosion of verbal inflectional morphology, McWhorter (2005: 287 ff) offers a comprehensive overview of the arguments and concludes that “overall, the explanations...lack explanatory power or falsifiability” and “it seems clear that the link [between verb movement and inflectional morphology] is too weak in itself to offer a conclusive explanation for what happened in English in comparison to its sisters.”

I believe to have isolated the relevant inflectional feature. It is not the erosion of mood or agreement, or the differing properties of tense, that caused the loss of V2 in English. Nor is it the expression of a subset of agreement markings (e.g. 1st and 2nd person), tense, or mood markings. The relevant feature is the (non-derivative) finiteness feature, which amounts to an explicit distinction between absolute and relative verb forms. This distinction is encoded as finiteness in the Germanic languages, and it is the loss of this feature that made English main verbs behave differently from auxiliaries and from main verbs in other Germanic languages.

3.2. The morphological expression of finiteness

Any analysis treating finiteness as a derivative composed of other, ‘more primary’ features, such as tense and agreement, fails to account for the finiteness-related differences between MSc and PDE. This is because English has ‘more agreement’ than MSc, but neither ‘more’ nor ‘less’ tense. However, as mentioned in section 2, English does have much more syncretism in the inventory of verb forms than MSc. To appreciate the consequences of this, we need to understand that the infinitive and the past participle are genuine, full-fledged participants in the basic tense system, giving rise to a four-way tense paradigm with two finite and two non-finite forms; cf. the table in (4), repeated here as (7a). However, over time, English main verbs developed into a system employing the collapsed paradigm in (7b); here the finiteness distinction, the distinction between absolute and relative tense forms, is lost. This results in a paradigm employing one generalized [+Past] form and one generalized [-Past] form.

(7)

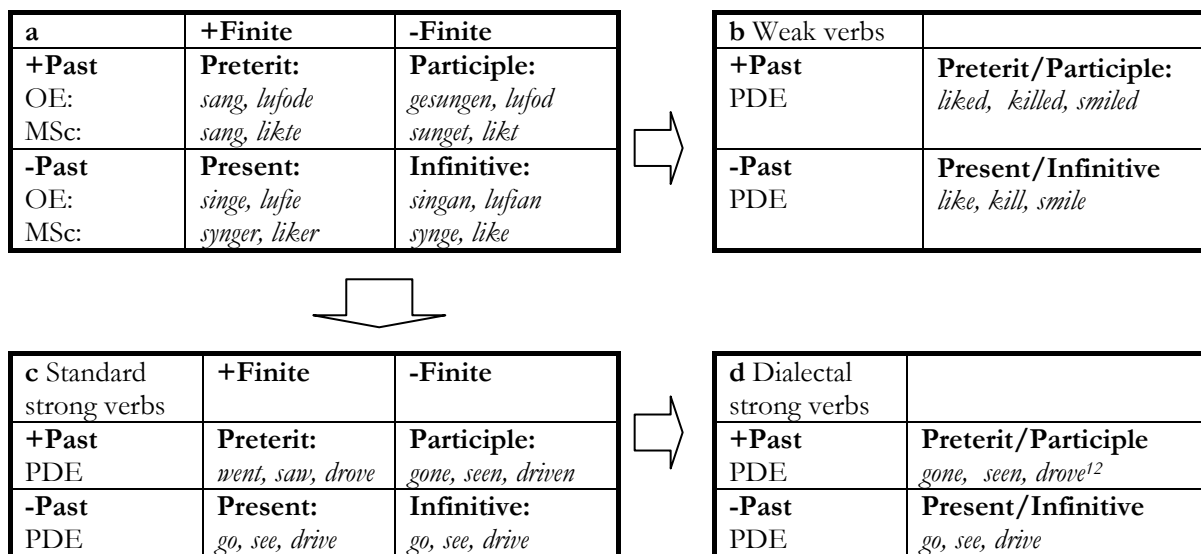
a	+Finite	-Finite
+Past	Preterite	Participle
-Past	Present	Infinitive

b	
+Past	Preterite/Participle
-Past	Present/Infinitive

Old English was like present day Mainland Scandinavian: it had distinct forms for all four cells in this paradigm; this was the case for both strong verbs like *singan* and weak verbs like *lufian*, cf. paradigm (8a). However, English is changing before our eyes. It is becoming more like the Creole languages mentioned earlier. The finiteness distinction starts to disappear in weak verbs, which adhere to the collapsed paradigm. In (8b), one generalized [+Past] form covers the function of the preterit and the past participle, and one [-Past] form covers the present and the infinitive. Note that nothing has been said so far about the 3rd person singular, which has a distinct form for main verbs even in PDE. I am going to assume that the 3rd person singular ending *-s* is an agreement marker that plays no role in the tense system.

English regular weak verbs have been inflected according to the collapsed paradigm for centuries, as shown in (8b), while irregular strong verbs have maintained a slightly more complex system. Although there is only one generalized [-Past] form, there have been distinct forms for the preterit and the past participle. Thus, instead of a four-way system, there is a three-way system in Standard English, as in (8c). Currently, these remains of the finiteness distinction in main verbs, hitherto maintained in strong irregular verbs, are disappearing from many variants and dialects of English,¹¹ resulting in alignment with the rest of the system (8d). We return to these dialectal facts in section 3.3.

(8)



Standard English strong irregular main verbs maintain a distinction between the preterit and the past participle as in (8c). However, these forms are relics,¹³ like certain obligatory case endings in modern Norwegian. They are too few and do not provide enough evidence for a finiteness system for English main verbs. I argue that, although there are a number of main verbs where the old finiteness distinction is still visible in the [+Past] forms, the finiteness system ceased to be productive for English main verbs many centuries ago. In fact, my analysis indicates that it disappeared at about the same time as the generalized V2 rule. I discuss the relationship between finiteness and raising more thoroughly elsewhere (cf. Eide 2007). For now, suffice it to say that the present approach encompasses the insight of Roberts (1993 and subsequent) that the loss of V2 in English is related to the loss of infinitival endings and Solà's (1996) insight that this loss is related to the non-distinctness of English preterits from past participles.¹⁴

As finiteness is encoded in the verbal form, any main verb can in principle serve as a cue for the child learning a language. The child simply has to observe the same verb in absolute and relative functions, observe whether the forms are different, and set the finiteness parameter correctly. Eventually, more and more L1 learners of English set the parameter as *finiteness not encoded* for main verbs. Thus, the productive paradigm becomes (7b), with one generalized [+Past] form and one generalized [-Past] form. Again, this leads to a situation reminiscent of that in the Creoles discussed in section 2, where the same verb form is used for both absolute (finite) and relative (non-finite) tenses. The context helps specify the tense.

A slightly different situation is found in several other Germanic languages. In Afrikaans, like in English, the infinitive is non-distinct from the present, resulting in one generalized [-Past] form, e.g. *werk* 'work'. Also, there is in principle only one [+Past] form since the old preterit form is virtually non-existent (except for 8 verbs), leaving the function of the preterit to be taken over by the perfect. Since there is only one [-Past] and one [+Past] form, should we not expect Afrikaans to have lost V2, just like English?¹⁵ The existence of one [-Past] and one [+Past] form does not automatically entail that the finiteness distinction is lost. Firstly, observe that the perfect is a periphrastic form, consisting of one finite and one non-finite element, an auxiliary and a participle:

- (9) *Ek het gewerk.*
 I have worked
 'I worked, I have worked.'

This means that although the L1 learner of Afrikaans will observe the same form in both finite and non-finite functions in the case of the [-Past] form (*ek werk* ‘I work’ vs. *ek sal werk* ‘I will work’), every [+Past] verb form will consist of one [+finite] and one [-finite] element. Admittedly, even for the auxiliary *hê* ‘have’ the finiteness distinction is sometimes neutralized; e.g. in compound tenses (data and claims from Donaldson 1994: 497):

- (10) a. *Hy sal dit gedoen het.*
 He will it done has
 ‘He will have done it.’
- b. *Hy moes dit gedoen het.*
 He must it done has
 ‘He must have done it.’

In spite of this formal syncretism between the present and the infinitive in Afrikaans, Ackema (2002) concludes that there is a detectable finiteness distinction between these forms. This conclusion is based on his crosslinguistic observation that ‘proper’ infinitives cannot have an expletive subject; their subject must always be an argument. Ackema (2002: 313) also points out that “infinitivals in Afrikaans behave like infinitivals in any language” in this respect, unlike e.g. the non-finite verbs in Chinese:

In other words, in Afrikaans but not in Chinese there is a fundamental syntactic distinction between finite verbs and infinitives, although in neither type of language is there an overt morphological sign of such a distinction.

In any case, the Afrikaans past participle is unambiguously and (unlike English) productively marked for non-finiteness; it also never moves to the V2 position. This is similar to Louisiana Creole, where verbs overtly marked as non-finite (here, with the ‘infinitival inflection’ *-e*) do not partake in verb movement, whereas others do (data and claims from Baptista 2000).

- (11) a. *Na lôtô mo pa mōzhe gratô.* (Louisiana Creole)
 In long time I NEG eat cracklin’
 ‘I haven’t eaten cracklin’ for a long time.’
- b. *Mo mōzhe pa gratô.* (Louisiana Creole)
 I eat NEG cracklin’
 ‘I don’t eat cracklin.’

The data in (11) mirror data from Dutch child language (De Haan 1987). In De Haan’s study, the overt marking of the infinitive (with the suffix *-en*) suffices to distinguish finite from non-finite forms, thus triggering the setting of the finiteness parameter as ‘Productive finiteness distinction’. To quote Solà (1996: 243; n. 43), “overt morphology means morphology that can be phonologically detected, not that it must have an overt affix; it may be detected by opposition.”

In Afrikaans, the finiteness distinction is at the very least visible and learnable through the productive opposition between the non-finite past participle form with the prefix *ge-* and the other verb forms. Thus, although we observe a collapsed paradigm for tensed verbs even in Afrikaans, this does not lead to the disappearance of the finiteness distinction. Therefore, a theory like the present, linking V2 to overtly encoded finiteness oppositions, does not predict that generalized V2 will be lost in Afrikaans any time in the near future.¹⁶

3.3. Dialectal and non-standard uses of preterit and participle forms

The present analysis offers a straightforward way to settle some issue in the long-lasting debate on ‘dialectal auxiliary drop’ in English. Examples of this phenomenon are given in (12), from Sampson (2002); cf. also Trudgill (1999) and many others.

- (12) a. You ever seen that? (cf. Standard: Have you ever seen that?)
 b. Er gone in. (cf. Standard: She has gone in.)
 c. They done it. (cf. Standard: They have done it.)

In my analysis, these facts are evidence that in these dialects the loss of the finiteness distinction in main verbs has gone one step further than in Standard English. This is the natural completion of a process eliminating the relics of the finiteness distinction in a syntactic system no longer making productive use of main verb finiteness. In fact, this is the expected progression of events, given the development illustrated in (8a), (8b), and (8c). The dialectal strong verbs have undergone the same process as weak ones, collapsing the four-way (or three-way) paradigm into a two-way paradigm of tense forms (8d).

However, the data in (12) could be equally well accounted for by an ‘auxiliary drop’ analysis, as illustrated by the parentheses in (12). Since the auxiliaries, even when they are present in the relevant context, are reduced to *-v* (*have*) or *-s* (*has*), it is not too far-fetched to assume that these phonetically reduced forms may drop out occasionally, and eventually completely. As discussed in the literature (Sampson 2002 quotes Edwards 1993 and Eisikovits 1987), an interesting question is whether these facts point to a different system in the relevant speakers or simply a variation in the output. In generativist terms: is this a competence or a performance phenomenon? When the speaker utters ‘Er gone in’ (12b), does he intend ‘she has gone in’ or ‘she went in’, or is the form ambiguous between the two readings? The present analysis seems to support the assumption that ‘Er gone in’ is the dialectal way of expressing the standard ‘she went in’; *gone* functions as an absolute tense form in this case, like a preterit. Moreover, this is another example of the common process of collapsing the preterit and the past participle into one form, as in (8d). On the other hand, there is nothing in my approach that would prevent an additional formal collapse of the perfect and the preterit into one form in certain languages and dialects (as observed for Afrikaans). For English, once the participle and the preterit are expressed by the same form, nothing prevents the auxiliary from dropping out. Thus, even if we could disambiguate the interpretation of the sentences in (12) by means of specific adverbials like *yesterday* or *two minutes ago*,¹⁷ this would not be evidence for or against the present analysis, although this move might tell us whether or not a specific construction is a ‘hidden perfect’.

There are, however, other facts and observations that favour the present analysis over the standard ‘auxiliary drop’ one. Several corpus linguists point out that there are many variants of non-standard irregular verb forms in dialects, but one quite robust generalization is that the preterit and past participle end up as the same form. Sampson (2002: 19) states that

Dialect usage frequently has the same form for past tense and past participle of an irregular verb which has distinct forms in the standard language (e.g. *drove* for both parts of DRIVE, *done* for both parts of DO). The form used for these two forms is sometimes identical to the base form, e.g. *run*, and sometimes different from any standard form, e.g. *seed* as past tense/participle of SEE.

Whereas an auxiliary drop analysis can explain the data in (12), it cannot easily explain both-function forms like *seed* or a past participle form like *drove*, or *went*, or a construction like *Here’s what I would’ve wrote*. The present theory, on the other hand, can do so. In my approach, the development is from two [+Past] forms (one finite, one non-finite) into one generalized [+Past]

form (with no finiteness distinction). Which of the two past forms (the preterit or the past participle) survives and takes on the function of the other is in principle arbitrary, hence trivial.

3.4. Auxiliaries and main verbs

The literature discusses a number of differences between main verbs and auxiliaries in PDE with regards to sentential negation (section 3.5), subcases of inversion, wh-question root clauses, etc. There are also differences within the category of auxiliaries that are much less discussed and still lack a robust explanatory analysis, a topic to which we return shortly. The similarities and differences between English main verbs and auxiliaries have been a recurring topic in syntactic theories at least since Chomsky (1955, 1957).

Although Chomsky (1957) lists auxiliaries, i.e. the modals and *have* and *be*, as appearing under a common (albeit phrasal) node Aux (e.g. p. 111), he also groups main verbs and auxiliaries together under a common ‘v’ in certain structural analyses (e.g. the rule of Auxiliary Transformation; p. 113, op. cit.). According to Lasnik (2000: 68), Chomsky’s (1957) treatment of auxiliary verbs in fact renders them as “belonging to no syntactic category at all.” This led Ross to question Chomsky’s analysis of auxiliaries. Ross (1969) claims that all English ‘auxiliaries’ in are in fact part of the natural class of verbs. Furthermore, in *Syntactic Structures* (Chomsky 1957), the element *do* is described as the substitute “bearer of an unaffixed affix” (cf. also the “stranded affix” filter of Lasnik 1981), and Chomsky states that the *do* appearing in these contexts is (at least morphologically¹⁸) “the same element as the main verb in *John does his homework*” (Chomsky 1957: 62). I will dispute this claim shortly.

Roberts (1985) suggests that the syntactic differences between auxiliaries and main verbs in English are due to a semantic property—the fact that auxiliaries lack Theta-properties. As Lasnik (2000: 161) points out, however, “it is not obvious that auxiliary verbs (especially modals) don’t have a theta-role to assign.”¹⁹ Roberts (1985) concedes that modals do contribute to the clause with something resembling a Theta-role and, to account for this effect, adopts Zubizarreta’s (1982) analysis of modals as modifiers analogous to Jackendoff’s (1972) agent-oriented adverbs. Roberts’ analysis is in relevant respects also the analysis adopted by Pollock (1989). Pollock’s (1989) analysis in turn is adopted by Chomsky in subsequent works, although instead of referring to the auxiliaries as lacking Theta-properties, Chomsky (1995: 198) characterizes them as semantically vacuous.²⁰

Although it seems rather uncontroversial to assume that the auxiliaries *have* and *be* are semantically light and perhaps not Theta-assigners,²¹ modals pose a problem for this generalization. They seemingly contribute something resembling a Theta-role in many contexts, especially on their root readings (obligation, permission, and volition).²² There are also a number of other differences between modals and the auxiliary *do*, on the one hand, and the auxiliaries *have* and *be* on the other that receive no explanation under the approaches outlined so far.

Schütze (2003) lists a number of contexts where there is a split between modals and the auxiliary *do* and *have* and *be*, e.g. subjunctives (13), *to*-infinitives (14), small clauses (15), *Why not* constructions (16), and others. All data and grammaticality judgements are Schütze’s.

- (13) Subjunctives
- a. It is vital that John be here on time.
 - b. It is vital that John be smiling on the photograph.
 - c. It is vital that Rover have eaten before we arrive.
 - d. *It is vital that John do not be late.
 - e. *It is vital that John will not come unprepared.²³

- (14) *To*-infinitives
- It is important (for everyone) to be on time.
 - It is important (for a movie star) to be smiling whenever the paparazzi are nearby.
 - It is important (for every applicant) to have finished high school.
 - *It is important (for us) to do not leave her alone.
 - *It is important (for us) to can be alone.
- (15) Small clauses
- I made him be alone for a while.
 - The director made us be dancing when the curtain opened.
 - ?The coach made her not just have eaten when she came to practice.
 - *The conductor made us do not sing the harmony line.
 - *The therapy made her can/could walk again. (cf. The therapy made her be able to walk again).
- (16) *Why (not)* constructions
- Why (not) be a responsible citizen?
 - Why be working when you could be partying on the beach?
 - ?Why not have made the appointment with her before she has a chance to make one with you?²⁴
 - *Why do not go to the beach?
 - *Why should/must stay home? (cf. ?Why be obliged to stay home?)

Schütze (op.cit. p. 406) notes that “For *do* and modals to pattern together against *be* and *have* in so many environments clearly should not be a coincidence.” His explanation is that *do* and modals belong to the category Mood and that the contexts in (13) through (16) are either too small to contain a Mood projection at all (e.g. small clauses) or come with their own \emptyset Mood morpheme that blocks the insertion of any of the Mood heads, i.e. *do* or modals.

The present approach offers a unified account for all the facts discussed in section 3.4. This finiteness-based analysis explains not only why main verbs stopped raising in English, but also why auxiliaries take part in the ‘residual V2’ constructions (some of which will be more thoroughly discussed in 3.5). It also explains why modals and the auxiliary *do* pattern together against the auxiliaries *have* and *be*. The reason is not Theta-properties, or semantic vacuity, or the presence of modal or mood-like properties in the auxiliary *do*. It is the morphosyntactic feature make-up of the verbs and auxiliaries, i.e. whether or not they encode the finiteness distinction.

PDE main verbs inflect according to the collapsed paradigm in (5a), repeated here as (17a), with one generalized [+Past] and one generalized [-Past] form. They encode no finiteness distinction and have no slot for a finiteness feature. Modals and the auxiliary *do*, in contrast, have only finite forms, as in (17b). The auxiliaries *have* and *be* are the only PDE verbal elements with a morphologically encoded finiteness distinction; their paradigm is thus the four-way paradigm of all verbs in OE and present day Mainland Scandinavian, (17c).

(17)

+Past	Preterit/Participle
-Past	Present/Infinitive

a. PDE Main verbs

[+Past,+Finite]	Preterit
[-Past, +Finite]	Present

b. PDE modals, auxiliary *do*

	+Finite	-Finite
+Past	Preterit	Participle
-Past	Present	Infinitive

c. PDE *have/be*, MSc, OE

What do we gain by considering the morphosyntactic feature make-up of verbs and auxiliaries the crucial property explaining the facts discussed in this section? Firstly, we can maintain the assumption that main verbs, modals, and the auxiliaries *do*, *have*, and *be* form a ‘natural class’. Secondly, the assumptions summarized in (17) are not a leap of faith; any traditional grammar of English will tell you that modals have no non-finite forms and we know that *have* and *be* may appear in finite as well as non-finite functions. The more radical assumptions about the lack of morphological finiteness in PDE main verbs also receive robust support from verbal paradigms, especially when we look at them diachronically. Thirdly, if we take seriously the idea expressed in Chomsky (1995: 169) that “variation must be determined by what is ‘visible’ to the child acquiring language, that is by the PLD [Primary Linguistic data],” the syntactic behaviour of main verbs vs. *have* and *be* vs. modals and *do* should be detectable on the basis of paradigmatic distinctions encoded in the morphosyntactic make-up, not a semantic quality that is gradable at best and questionable at worst.²⁵ What semantic distinction would make auxiliary *do* pattern like modals and unlike *have* and *be*? And how could the child find the right point on the semantic scale where ‘be able to’ and ‘be obliged to’ are on one end and *can* and *must* on the other, patterning with auxiliary *do*? Instead, the finiteness feature is easily detectable by the child. The verb has the same form in absolute and relative functions (main verbs), in which case there is no finiteness distinction; it occurs only in absolute functions (modals and auxiliary *do*), in which case it is always [+Finite]; or it has morphologically distinct forms in absolute and relative functions (*have* and *be*), in which case it encodes the finiteness distinction [\pm Finite].²⁶ We return to the morphosyntactic forms of *have* and *be* in sections 3.5 and 3.6.

Although PDE grammar no longer encodes finiteness in main verbs, it frequently refers to finiteness in grammatical rules. There is no conceptual necessity underlying this diachronic development; one may very well envision a line of events such that English grammar, after abandoning the finiteness system for main verbs, developed into a grammar where the finiteness distinction simply disappeared from the syntactic system. However, this is not what happened. Instead, many probes remained ‘unaware’ that main verbs could no longer provide the required finiteness distinction, like an amputee patient with a phantom limb. These probes, even in PDE grammar, keep probing for (or selecting) [+Finite], [-Finite], and *[+Finite] goals (or complements). *[+Finite] means that the probe rejects any goal positively specified for finiteness, but will accept a [-Finite] goal (i.e. a non-finite auxiliary) or a goal with no finite distinction [\emptyset Finite] (i.e. a main verb). This is the case in Schütze’s data in (13)-(16). In all these structures, the presence of a [+Finite] feature in the complement renders the construction ungrammatical. As modals and the auxiliary *do* are always [+Finite], they are banned from these constructions. Main verbs are accepted because they encode no finiteness feature; the non-finite versions of *have* and *be* are acceptable because they are [-Finite].

Other PDE probes still ask for an active goal encoding a [+Finite] feature, like (Σ) sentential negation, cf. section 3.5, and the question operator Q. The finiteness requirement of Q is a property that PDE still shares with its Germanic relatives. Again, main verbs and non-finite *have* and *be* cannot accommodate this requirement because main verbs have no finiteness feature (they are [\emptyset Finite]) and non-finite *have* and *be* are [-Finite]. Only modals, auxiliary *do* and finite *have* and *be* encode the right morphosyntactic feature [+Finite]. In MSc, any main verb or auxiliary may satisfy Q since all verbs and auxiliaries encode the finiteness distinction. Of course, [-Finite] verbs would create a feature mismatch and are thus banned from raising to Q even in MSc, as in (18a). However, all verbs have a [+Finite] variant to meet the finiteness requirement of Q, as in (18b). In PDE, non-finite *have* and *be* are excluded since they are [-Finite], as in (18c); finite *have* and *be* are allowed, however, as in (18d). Unlike MSc main verbs (18e), PDE main verbs would also be insufficient as goals for the probe Q (18f) since they have no finiteness feature. Modals and the auxiliary *do*, in contrast, have the right feature: they are always [+Finite] and fit the job description perfectly (18g).

- (18) Inversion and finiteness
- | | | |
|----|-----------------------------|--|
| a. | <i>*Ha John gått?</i> | Norwegian |
| b. | <i>Har Jon gått?</i> | Norwegian |
| c. | <i>*Have John left?</i> | (Cf. example (13c) It is vital that Rover have...) |
| d. | <i>Has John left?</i> | |
| e. | <i>Gikk Jon?</i> | Norwegian |
| f. | <i>*Left John?</i> | |
| g. | <i>Must/Did John leave?</i> | |
| h. | <i>Må/*Gjorde Jon gå?</i> | Norwegian |

Note that MSc languages have no verb corresponding to the auxiliary *do* in PDE (18h). This could be an accident, but since PDE auxiliary *do* is a substitute employed to fulfil the requirements of specific goals requiring finiteness, and since all verbs have their own finiteness distinction in MSc, this verb would be between jobs most of the time.²⁷

A range of periphrastic *do*-constructions exist in past and present stages of Germanic languages, and some claim that periphrastic *do* is a Germanic family trait (McWhorter 2007 quotes Tieken-Boon Van Ostade 1988). McWhorter (2007) shows that although there are variants of periphrastic *do*-constructions in non-standard Dutch dialects (Cornips 1994), earlier stages of Frisian (Van der Auwera and Genee 2002: 287), and Old Norse (Ellegård 1953: 27), they are different from the English *do*-construction. McWhorter (2007: 8-9) concludes that “a search for languages in which *do* has developed into *semantically empty conjunction with all verbs* is challenging indeed”, and that “English’s usage of *do* is extremely odd” and crosslinguistically without any clear parallels.

Note that it is finiteness, not agreement (encoded by the marking *-s*), that allows the auxiliary in inversion, as in (18d), and bans it from the constructions in (13)-(16). Modals never show agreement; neither does the preterit of the auxiliary *do*. We could stipulate that these forms have covert agreement, but this would provide poor cues for the child acquiring the system. Instead, I argue that the agreement marking (visible in 3psg *-s*) is partly independent of the presence of a morphologically encoded finiteness feature; this marker shows up with PDE main verbs (with no finiteness distinction), with *have* and *be* (where finiteness is encoded), and with the auxiliary *do* (where the finiteness feature is obligatorily positive, [+Finite]). Likewise, MSc languages have the finiteness distinction encoded in all verbs, although there is no agreement; there are also agreeing infinitives in many languages (e.g. European Portuguese). Thus, agreement is neither a necessary nor a sufficient condition for finiteness. Instead, I assume that the relationship between agreement and finiteness is looser than usually assumed, although they often show up in the same contexts. I argue that they often show up in the same context because of the Anaphor-agreement effect of Rizzi (1990b: 26):

The anaphor agreement effect: Anaphors do not occur in syntactic positions construed with agreement.

In my theory, verb forms (inherently encoding tense elements) are temporal anaphors when non-finite and temporal pronouns when finite. If temporal anaphors (non-finite verbs) are subject to Rizzi’s restriction, finite verbs (and even English main verbs, when they have finite/pronominal function, i.e. are the structurally highest verb in the clause) may have agreement. This begs the question of why there are agreeing infinitives (which are anaphors). For now, I will simply suggest that the Anaphor-agreement effect is a descriptive (albeit strong) generalization, not an absolute constraint, and leave this question for future research.

To sum up, instead of proposing two widely different explanations for the data in (13)–(16), I proposed a unified account for these patterns, based on the morphosyntactic feature of finiteness, (usually) easily detectable in verbal forms.

3.5. English sentential negation

The analysis of the behaviour of PDE main verbs and auxiliaries with respect to sentential negation can also be simplified by the non-derivative finiteness distinction. Like the other syntactic differences between main verbs and auxiliaries in PDE, *do*-support in English negated clauses is a topic that has occupied generative linguists for fifty years. In a sense, all the analyses are refinements of Chomsky (1955, 1957); cf. Lasnik (1999: 98). The basic facts to be explained are quite familiar, as pointed out in Cormack and Smith (1998: 1), (2000: 50) and many others:

- (19) Verbs and negation in English
- a. John often snores.
 - b. *John not snores.
 - c. John did/will/must not snore.
 - d. *John snores not.

The data in (19) give rise to the following three questions (from Cormack and Smith 2000: 50):

- Q1: Why is (19b) ungrammatical? In particular,
Q2: What accounts for the difference between *often* and *not* in (19a) vs. (19b)?
Q3: Why can an Aux or modal precede *not*, while a V cannot (19c) vs. (19d)?

One common way of answering these questions is to assume that there are two types of negation markers in Germanic languages. Type A is a head, projecting its own functional projection in the IP domain of the clause (cf. e.g. Zanuttini 1996). Type B is an adverb, with a distribution similar to other sentence adverbs. Whereas sentential negation in German, Dutch, and MSc is believed to be of type B (Zanuttini 1996: 191), English sentential negation is assumed to be type A, giving rise to a designated NEGP projection. This partially answers question Q2 since *not* is not an adverb. This type of approach would also typically answer question Q1 by means of the Head Movement Constraint, HMC (Travis 1984: 131), which restricts movement of a head to the nearest head position. A syntactic head X^0 cannot move over a head Y^0 to reach a head position Z^0 (this is a subcase of Relativized Minimality; cf. Rizzi 1990a). Under the assumption that the inflection (or the relevant head checking the inflection) of *snores* is generated in a position above negation, whereas the (bare) verb is merged below negation, the negation head would intervene between the main verb and (the head checking) its inflection. Thus, the HMC accounts for the ungrammaticality of (19b) and (19d). Auxiliaries, in HMC-based approaches, are generated above negation (for some reason) and are thus not restricted by it the same way verbs are; this answers question Q3.

In contrast to these and other analyses where elaborate mechanisms are needed to account for the facts, the present approach can account for the facts in (19) with a single assumption:

Sentential negation in Germanic requires a [+Finite] verb.

Admittedly, this requires a restrictive definition of ‘sentential negation’, excluding the type of negation we find in infinitives, ECM constructions and subjunctives. I will adopt the definition used in Schütze (2004: 11), who, following “quite common practice” refers to “the head in which sentential negation *not* is generated” as Σ (Gleitman 1965; Laka 1990).

In addition to *not/n't*, Σ can host overt expressions of positive polarity, as in *John does TOO/SO know Arabic*, and a segmentally empty morpheme that induces prosodic emphasis, call it \emptyset_{emph} , as in *Mary DOES like pineapple!* All these items trigger *do*-support in English, the only value of Σ that does not is nonemphatic positive polarity \emptyset_{pos} .

Note, however, that *do*-support is attested even with non-emphatic, positive polarity Σ in certain “modern dialects and registers and in child English”; cf. Schütze (2004), and, most famously, in the English of the 1500s. According to Denison (1993: 264-5), *do*-support is attested in positive declaratives from the thirteenth century and shows up in negative declaratives a little later (starting in the fourteenth century).²⁸

No matter what mechanism we choose, observing the non-derivative finiteness distinction substantially simplifies our analysis of sentential negation. For concreteness, let us assume within the most recent Chomskyan framework²⁹ that sentential negation in English (i.e. negative Σ) is a probe looking for an active [+Finite] feature. Crucially, auxiliaries (like main verbs) are merged below Σ on this analysis: their properties must belong to the search domain for Σ . Given the discussion in the previous sections, my assumption that sentential negation in Germanic requires a [+Finite] verb rules out the possibility that PDE main verbs or non-finite *have* and *be* can satisfy the sentential negation probe. It also explains why modals and finite *have* and *be* occur with sentential negation in English, explains *do*-support in sentential negation structures (in a manner reminiscent of the solution in Syntactic Structures and Lasnik’s 1981 “stranded affix filter”), and explains why any verb in MSc can fulfil the requirements of sentential negation— although negation is probably not a probe in MSc languages. Even in MSc Σ negation is subject to compatibility restrictions, as suggested for various adverbs by Ernst (2002). And one of these restrictions is the generalization that sentential negation in Germanic requires a [+Finite] verb.

Zanuttini (1996) argues that in both Romance and English the functional projection NegP, headed by *n’t* in English, is dependent on the presence of TP, the tense projection. She expresses this relationship by saying that NegP takes TP as its obligatory complement. In contrast, *not* is independent of TP and can be adjoined to any category. Zanuttini illustrates her claims with the following data (Zanuttini 1996: 192-3):

- (20)
- a. We haven’t had lunch yet.
 - b. *We have/had hadn’t lunch yet.
 - c. We hadn’t had lunch yet.
 - d. Mary hasn’t always paid taxes.
 - e. *Mary has always paidn’t taxes.
 - f. She couldn’t not have noticed it.
 - g. She could have not noticed it.
 - h. *She could haven’t noticed it.

Zanuttini’s insights about the relationship between negation and tense can be straightforwardly translated into the present approach by substituting the notion of tense with finiteness. Invoking finiteness instead of tense is also supported by acquisition research on negation; cf e.g. Meisel (1997: 239), quoted here from Gretsch and Perdue (2007: 447-8):

The acquisition of sentence negation happens fast and virtually without errors in L1 acquisition. As soon as one finds evidence for the productive use of finite forms, NEG is placed clause-internally.

Zanuttini needs an elaborate ad hoc theory to account for English imperatives which should lack the functional category TP (as in Romance). It follows that they should reject the negation *n’t*. However, English imperatives readily express negation with *n’t*, as in (21).

- (21) Don’t go there.

Thus, Zanuttini argues that English imperatives are not imperatives but subjunctives. This does not help much because (as pointed out to me by an anonymous reviewer), English subjunctives also reject the negation *n't*, e.g. *He insists that she not/*n't leave*. The present approach, in contrast, explains why English imperatives use *n't* for negation: unlike *not*, which can appear in a range of different positions, *n't* can only be hosted by Σ . Thus, it always requires a [+Finite] verb and auxiliary *do* is always [+Finite].

The non-derivative finiteness analysis outlined here also explains the otherwise puzzling ungrammaticality of the raising of *have* and *be* in negated imperatives, as in (22), partly from Lasnik (1999: 113-4).

- | | | | | |
|------|----|------------------|----|----------------------------|
| (22) | a. | Leave! | i. | Have a cow, why don't you! |
| | b. | *Not leave! | j. | *Have not a cow! |
| | c. | *Leave not! | k. | *Haven't a cow! |
| | d. | Do not leave! | l. | Do not be foolish! |
| | e. | Don't leave! | m. | Don't be foolish! |
| | f. | Be foolish! | n. | Do not have a cow! |
| | g. | *Be not foolish! | o. | Don't have a cow! |
| | h. | *Ben't foolish! | | |

Since there is no negation in (22a), main verbs are acceptable. The ungrammaticality of (22b) and (22c) and the grammaticality of (22d) and (22e) is explained on the assumption that Σ negation in English requires a [+Finite] verb.

To explain the ungrammaticality of (22g), (22h), (22j), and (22k), we need to invoke the well-known fact that English imperatives do not accept an overtly agreeing verb. This is an empirical fact about English imperatives quite independent of one's theory on the ingredients of finiteness, cf. e.g. (23a) and (23b). The lack of agreement in English imperatives is evident not only in the second person, with the copula, or the non-overt subject, but also in other verbs, persons, and even when the subject is overtly realized (here as a 3psg DP), cf. (23c)-(23f) from Jensen (2003: 253).

- | | | |
|------|----|---------------------------------------|
| (23) | a. | *Are foolish! |
| | b. | Be foolish! |
| | c. | *Does/Doesn't anybody move! |
| | d. | Don't anybody move! |
| | e. | *Does/Doesn't everybody move at once! |
| | f. | Don't everybody move at once! |

Which explanation for the ban on agreement in English imperatives is most productive is not critical to the present analysis. It suffices to note that agreement is *de facto* ungrammatical in these imperatives and to emphasize that this is a fact partly unrelated to the realisation of finiteness in the same imperatives. The main verb imperative in (22a) has no finite feature and no AGR feature, the imperatives in (23d) and (23f) have a finite but no AGR feature. Thus, there is no obligatory relation between finiteness and AGR in English imperatives either, as is to be expected on our analysis. The reason for the ungrammaticality of (22g), (22h), (22j), and (22k) is not that the matrix [+Finite, -AGR] does not exist because this is clearly the matrices of the imperatives in (23d) and (23f). Instead, *be* and *have* are banned from negated imperatives since no morphological form of *have* or *be* expresses the required matrix [+Finite, -AGR]; all their finite forms are also (coincidentally) +AGR. This leads to a conflict in cases like (22g), (22h), (22j), and (22k). Imperatives reject [+AGR] verbs, but negation requires a [+Finite] verb. *Have* and *be* have no forms to meet both these requirements, so the solution is to enrol auxiliary *do* to provide the needed [+Finite] feature, crucially, in its non-agreeing form [+Finite, -AGR].⁵⁰

Finiteness: The *haves* and the *have-nots*

Be/have is merged below negation to meet the lexical selectional requirements of the adjective and the idiom construction, respectively.

3.6. The paradigms of *have* and *be*

The present theory is based on the assumption that the morphosyntactic paradigms of verbs determine their syntactic behaviour, to the extent that erosion of inflections and the subsequent syncretism in the morphological paradigms may cause major changes in the clausal architecture, e.g. leading to the loss of V2. This strong relationship has quite easily testable predictions, but it leaves the proposal open to objections when we discover discrepancies between the paradigms and the expected versus the attested syntactic behaviour of a given verb.

As summed up in (17), repeated here as (24), PDE main verbs have no finiteness distinction and modals and auxiliary *do* have only finite forms, but the paradigms of *have* and *be* encode the finiteness distinction, like all verbs in Mainland Scandinavian and Old English.

(24)

+Past	Preterit/Participle
-Past	Present/Infinitive

[+Past,+Finite]	Preterit
[-Past,+Finite]	Present

	+Finite	-Finite
+Past	Preterit	Participle
-Past	Present	Infinitive

a. PDE Main verbs b. PDE modals, auxiliary *do* c. PDE *have/be*, MSc, OE

However, *be* not only has distinct forms for all four cells in the paradigm, but a number of different forms for the present (and the preterit). This has no effect on the distribution of *be*; its distribution is like that of *have*, which has fewer forms, as in (25a) and (25b). Since *be* functions as the copula (and has other semantically light functions), it is not unexpected that it retained the AGR inflections longer than other verbs. On certain approaches, predication, as instantiated by e.g. the copula in fact amounts to an AGR relation; cf. e.g. Guéron and Hoekstra (1995). On my approach to finiteness, AGR features play no role in the instantiation of finiteness (although agreement is decisive in the imperative construction; cf. section 3.5). Thus, the abundance of AGR-dictated forms of *be* is not a problem for my proposal.

The paradigm of *have* is quite another matter.⁵¹ As seen in (25b), *have* seemingly inflects like English main verbs, with no detectable distinction between the participle and the preterit or the infinitive and the present; compare to the paradigm of *love*.

(25)

a.	+Finite	-Finite
+Past	Preterit: <i>was, were</i>	Participle: <i>been</i>
-Past	Present: <i>am, are is</i>	Infinitive: <i>be</i>

b.	+Finite	-Finite
+Past	Preterit: <i>had, loved</i>	Participle: <i>had, loved</i>
-Past	Present: <i>have, love</i>	Infinitive: <i>have, love</i>

Morphosyntactically, the only distinction between *love* and *have* is that *have* loses *-ve* before the [-past] inflection *-d* and before the agreement marker *-s*, whereas *love* retains *-ve*, fusing the inflection onto the stem. The idiosyncrasy in the way *have* inflects does not seem to be enough evidence for the language learner that *have* has a productive finiteness distinction, but *love* does not.

Some authors postulate the existence of zero morphemes in language; if Ackema's (2002) analysis is on the right track, this is the case with the infinitive-present distinction in Afrikaans. As a general rule, however, one should be reluctant to postulate a zero morpheme if this morpheme does not contrast with a non-zero marker of the same kind, with a different or opposite value. It is less of a stretch to postulate a zero morpheme finiteness marker in the case

of Louisiana Creole as in (11) since it contrasts with the non-zero marker of non-finiteness. No such opposition is found in the paradigm of *have* in (25b).

Moreover, the main verb *have* has the same inflection as auxiliary *have*. What would provide the language learner with the cue to assign a finiteness distinction to auxiliary *have* and no such distinction to main verb *have*? This is also (to a lesser extent) the case with main verb *do* and auxiliary *do*. Admittedly, some English dialects have developed two distinct paradigms for auxiliary and main verb *do*, cf. Trudgill (1999: 12-13):

Standard English fails to distinguish between the auxiliary forms of the main verb *do* and its main verb forms. This is true both of present tense forms, where other dialects distinguish between auxiliary *I do, he do* and main verb *I does, he does* or similar, and the past tense, where most other dialects distinguish between auxiliary *did* and main verb *done*, as in *You done it, did you?*

However, in Standard English main verb *do* and auxiliary *do* share the same paradigm (although auxiliary *do* has only finite forms); main verb *have* and auxiliary *have* seemingly inflect identically.

We faced a similar problem in section 3.2. There, I discussed why strong irregular main verbs, with a morphological finiteness distinction between preterits and participles (cf. 8d) do not count as ‘syntactically finite’; i.e. why they do not partake in inversion, for instance. These facts seem to suggest that morphosyntactic clues are not the only cues for a language learner constructing a grammar of English; instead, categories (main verbs vs. auxiliaries) may also play a part. Children are sensitive to the distinction between main verbs and auxiliaries from an early age, cf. Bobaljik (1995: 331 ff), reporting on a study by Håkansson (1989). The informant in this study is a Swedish child who, at age 2;11 produced correct subordinate clauses with main verbs, giving the correct order negation-verb. With auxiliaries (one half of the sentences), she consistently produced the order auxiliary-negation. Bobaljik states that

The child showed an exceptionless contrast between auxiliaries and main verbs, under which auxiliaries raised and main verbs did not. This in a language, Swedish, which has no such contrast in adult speech, not even in inflectional paradigms. She could have had no source for the distinction other than some property of universal grammar which distinguishes main verbs and auxiliaries. (332)

The fact that main verb *have* shares some of the properties of auxiliary *have* goes against the assumption that the categorical main verb-auxiliary distinction is the only relevant distinction. In (26a) the main verb *have* occurs with Σ negation; in (26b) it partakes in inversion.

- (26) a. We haven’t any pickles.
b. Have you no shame?

These data suggest that (at least some) language acquirers of Standard English does ascribe a finiteness distinction to main verb *have*. The morphologically distinct forms of preterits and participles in strong irregular verbs are however not a sufficient cue for the child to assign a finiteness distinction to main verbs in general, not even to the relevant strong irregular verbs. These facts, taken together, only make sense if we allow for both categorical and morphological clues to help the language acquirer when she constructs the grammar of her native language.

4. Conclusion

I have attempted to show that the finiteness distinction is not a derivative made up of tense or agreement features, but a primitive distinction in its own right expressed in verbal paradigms independently of tense and agreement. This helps explain the syntactic behaviour of main verbs and auxiliaries in English and differentiate between English auxiliaries. My analysis accounts for the differences between the major clausal structures in English compared to those of other Germanic languages, like Mainland Scandinavian. Moreover, the loss of the finiteness distinction was argued to be responsible for many major syntactic changes from Old English to Present Day English—the rise of *do*-support and the loss of non-finite modals.

The same analysis was used to show that the English dialectal use of past participles as preterits is in fact what we would expect, given the overall loss of the finiteness distinction in English main verbs.

An analysis based on a non-derivative finiteness distinction allows us to maintain the Rich Morphology Hypothesis, where verb movement is tied to the richness of the morphology (as a one-way conditional). Previous analyses have not been able to isolate the relevant feature; in my analysis, this feature is the non-derivative finiteness distinction.

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² This definition also has ancient roots, going back to Stoic logic, cf. Nikolaeva (2007), quoting Luhtala (2000).

³ This is Comrie's claim. An anonymous reviewer points out that 'European languages' is not a very helpful classification since many of the languages spoken in Europe are not Indo-European: Basque, Finnish, Estonian, and Hungarian. In fact, Finnish is one of the languages discussed by Comrie. Comrie claims that most European languages, Indo-European or not, have this two-way split between past and non-past forms.

⁴ One anonymous reviewer asks the following questions: If verbs are inherently tensed, why do substitutive forms of past modals exist in English, and why do tense markers exist in Creoles? The answer is that "inherently tensed" by no means entails the inherent capability of one form to express any kind of tense. Furthermore, "tense" does not equal "past", although this is a tacit assumption in many works. Present modals encode present, not past. The reverse situation seemingly holds: past modals seem to express present tense, but it is commonly assumed that the past form of English modals is a more 'distal' and hypothetical form than the present. Cf. also Stowell (2004) for a more general discussion on whether PDE modals are capable of showing true tense distinctions. In Capeverdean Creole, the default system is that the bare verb form expresses present if the verb is stative, past if the verb is dynamic. To express the present of a dynamic verb, the speaker must add

the ‘present’ or stative marker *sta*; to express the past of a stative verb the speaker needs to add the anteriority marker *-ba*. The bare verb form cannot express futurity; a designated future marker must be added.

⁵ Cf. Partee (1973, 1984); Enç (1987); and Stowell (2007) for other, quite different approaches to the anaphoric properties of tense. Non-finite verb forms are not considered tense marked in these approaches (except for the past participle in Stowell’s paper). It follows that non-finite forms are irrelevant for their discussion. Guéron and Hoekstra (1995) is a proposal more similar to the present one in spirit, if not in terminology and form.

⁶ I will ignore long-distance anaphora in this discussion, although I believe that this type of anaphora also exists in the temporal domain. A good candidate, I believe, is the Swedish embedded perfect participle in constructions like: *Han säger att hon inte kommit* ‘He says that she not arrive PERF.PART’.

⁷ I will ignore the bound-variable reading in this discussion. Cf. e.g. Büring (2007) for a discussion and von Stechow (2002) for a historical overview of the deictic-anaphoric distinction of pronouns.

⁸ This is why I do not adopt a suggestion from one of the anonymous reviewers that finite tenses should be seen as R-expressions instead of pronouns. Although finite tense elements are +R in the sense of Reinhart and Reuland (1993: 659), they behave more like pronouns than R-expressions.

⁹ A detailed discussion of the construction of temporal chains and their similarities to nominal referential chains is found in Eide (2007); cf. also Schlenker (1999) for a discussion of logophoricity, pronouns, and tenses.

¹⁰ In contrast, Solà (1996) suggests that English main verbs are inflected neither for tense nor for agreement and should be considered (present or past) participles. Thus, the lack of verb movement with main verbs stems from the presence of a null auxiliary representing tense (and agreement), blocking movement of the main verb.

¹¹ The dialects in question are different varieties of English. Eiskovits’s (1987) study is of inner-city Sydney, but as pointed out by Trudgill and Chalmers (1991: 52), her generalizations apply to other dialects of English. Sampson’s (2002) study is mainly of British English dialects; his data are taken from the CHRISTINE/I corpus; cf. Sampson (2002) for details.

¹² Not all dialects of English take the same path in simplifying the paradigm. In some cases, the preterit form is the one covering both functions, e.g. *should-a-went*, as appropriately pointed out by one anonymous reviewer; in other cases, a new form, neither the original preterit nor the past participle, is employed as the [+past] form.

¹³ F. Newmeyer and J. McWhorter commented on previous versions of this paper, and they both hesitate to accept the term *relics* for these forms. F. Newmeyer (p.c): “I am a bit uncomfortable with calling verb forms distinguished in the past and perfect ‘relics’. Many of the most common verbs in English behave that way, so the distinction seems very much part of our competence. Also, the distinction is being newly-created. When American English created ‘dove’ as past tense of ‘dive’, it left ‘dived’ as the perfect.” I use the term *relics* to indicate that this distinction is no longer productive in Present Day English, and new verbs entering the language are not inflected according to the paradigm in (8c), but the paradigms in (8b) and (8d).

¹⁴ An anonymous reviewer asks “since finiteness is treated as distinct from tense (and agreement), would this imply that verbs that are [+Finite] necessarily move to C⁰, or if we assume a split CP à la Rizzi (1997) to Fin⁰?” The reviewer adds that this would create a number of problems, e.g. for MSc subordinate clauses. Certainly one might assume that the verb moves to Fin⁰ covertly (adjoining to the complementizer) in finite subordinated clauses as suggested by Platzack (1998: 398). However, my view is slightly different. I assume that V2 is connected to assertion (like Bentzen et al. 2007; Klein 1998; and others), but this is a one-way relation, not a biconditional. When the Force-related “V2” head contains the trigger for V2, only a finite verb can fulfil the requirements of this head, and the V2 probe thus scans its checking domain for [+finiteness]. This does not imply that a [+Finite] verb obligatorily moves to V2, overtly or covertly, when the V2-trigger is not present, as in subordinate clauses. For an overview of theories on the trigger for V2, cf. Vikner (1995).

¹⁵ This question is asked by one of the anonymous reviewers.

¹⁶ We would also not predict that languages where the infinitive has the same form as some of the finite forms (e.g. the 1st person plural present in German) would lose V2 for the same reason, a question raised by one anonymous reviewer. There will still be sufficient evidence in the productive paradigms to trigger the right setting of the finiteness parameter in spite of a certain degree of syncretism.

¹⁷ As suggested by an anonymous reviewer.

¹⁸ Lasnik (p.c) suggests that Chomsky means morphologically, not necessarily syntactically. However, I want to dispute this claim as well: main verb *do* has main verb inflection, i.e. with no finiteness distinction, whereas auxiliary *do* has only finite versions, like the modals. Cf. Eide (2007) for more details.

¹⁹ Lasnik (1999: 103) on the alleged semantic vacuity for the auxiliary *be*: “First, it is not clear that *be* is always semantically vacuous, yet the syntactic behaviour of *be* in finite clauses is always the same. For example, it is reasonable to assume that in [(i)], *is* has the meaning of *exists*. Yet, as seen in (ii), it raises overtly nonetheless:

- | | |
|---------------------------------|--|
| (i) There is a solution. | (ii) a. There is not a solution. |
| | b. Is there a solution? |

²⁰ “Consider again the intuition that underlies Pollock’s account: raising of the auxiliaries reflects their semantic vacuity; they are placeholders for certain constructions, at most ‘very light’ verbs. Adopting the

intuition (but not the accompanying technology), let us assume that such elements, lacking semantically relevant features, are not visible to LF rules. If they have not raised overtly, they will not be able to raise by LF rules and the derivation will crash.”

²¹ Pollock (1989: 385, 386) “[*Have* and *be* and their French equivalents] have a unique status with respect to θ -theory: they arguably fail to assign any θ -role to the constituents they are subcategorized for.... That aspectual *be/être*, *have/avoir*, and ‘passive’ *be/être* are not θ -role assigners is not, I think, controversial.”

²² This is particularly evident on the subject-oriented reading (term due to Barbiers 1995). As shown in Eide (2005), the root vs. epistemic distinction is not the relevant cut-off point between modals that assign an external Theta-role and those that do not. In fact, root modals are quite capable of taking expletive subjects. However, only subject-oriented modals allow for their complement to undergo pseudo-clefts; whether the modal is root or epistemic is not important (except for the fact that epistemic modals are never subject-oriented). Cf. the data from Eide (2005: 198), both modals are root modals, but only the one in (i) is subject-oriented (+Theta-assigning).

- (i) *Det vi alle bør, er å tenke gode tanker.*
It we all should, is to think good thoughts
‘What we all should (do), is think good thoughts’
- (ii) **Det en kvinne bør, er å bli vår neste statsminister*
it a woman should, is to become our next prime minister
Intended.: What should happen is that a woman becomes our next PM.

²³ (13e) is grammatical on a non-subjunctive reading: ‘The fact that John will not come unprepared is vital.’

²⁴ Example originally from Wachtel (1979).

²⁵ Cf. Bouchard (1995: 41): “The very notions on which theta-roles are based are external to Grammar.”

²⁶ It is conceivable that there are also elements in natural language that are always [-Finite], with no [+Finite] forms. The *-ing* form (gerunds, progressives) is a good candidate for an obligatorily [-Finite] form in PDE.

²⁷ There is a verb *gjøre* ‘do’ that occurs in tag-questions (i) and in VP-fronted constructions (ii), with some properties of PDE *do*. However, it is never found in true *do*-support constructions such as residual V2 contexts.

- (i) *Marit kommer ikke, gjør hun?* (ii) *[Drikke/Drakk seg full] gjorde han aldri.*
Marit comes not, does she? [Drink/Drank himself wasted] did he never

According to one anonymous reviewer, in the English constructions corresponding to both (i) and (ii) dummy *do*, not main verb *do* is used. I don’t think this is correct for (ii), since (ii) could also have a non-finite *do* (*Drink himself wasted he would never do*). If my analysis has merit, auxiliary *do* has no non-finite version.

²⁸ One anonymous reviewer asks: “If English has retained some traces of the old four-way verbal paradigm in form of the auxiliaries *have* and *be* and if there are some verbs (the modals and auxiliary *do*) that are inherently [+Finite], wouldn’t you then expect the obligatory insertion of auxiliary *do* in all positive declarative sentences rather than a change to a completely different system in which finiteness is just a matter of structural hierarchy?” The insertion of *do* in positive declaratives was the first step in this process; cf. Denison (1993: 265) and McWhorter (2008: 6). Whereas *do*-support spread to other constructions requiring [+Finite] verbs, it eventually dropped out of positive declaratives, in which it was first introduced, and is now found only in certain dialects, registers, and child language, cf. Schütze (2004).

²⁹ Cf. Chomsky (2000, 2001, 2004, 2005, in press).

³⁰ Lasnik (1999: 114) lists as one of several possibilities that *have* and *be* lack imperative forms in the lexicon. In my view, the present proposal addresses Lasnik’s issue in a more elegant and accurate fashion, by pinpointing the exact features required by a negated imperative and incompatible with any form of *have* and *be*.

³¹ As pointed out to me by an anonymous reviewer and also by Professor Janne Bondi Johannessen after my presenting this analysis at the conference MONS12 in Stavanger, November 2007.