AGREEMENT AND THE GRAMMATICALISATION OF PERFECT AND PASSIVE CONSTRUCTIONS IN THE *ANGLO-SAXON CHRONICLE**

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ABSTRACT Based on material from the *Anglo-Saxon Chronicle*, this paper examines the development of perfect and passive periphrases out of copular and possessive clauses, tracing the interaction between agreement marking, reanalysis and grammaticalisation. It has previously been claimed that reanalysis was triggered in contexts with zero-morphology. However, I demonstrate that zero-exponence did not play a decisive role in the reanalysis of these periphrastic schemas and the subsequent loss of agreement across-the-board. Instead, the gradual decline of overt agreement correlates with a higher degree of grammaticalisation as a natural consequence of it. The data point to a gradient cline from least to most grammaticalised patterns: passives with *be* or *become*, which remain closest to copular clauses, followed by *be*-perfects and then *have*-perfects, the most highly entrenched periphrastic schema.

1 INTRODUCTION

1.1 *Grammaticalisation and the development of periphrastic constructions*

The evolution in Old English of perfects and passives from copular and possessive clauses was a long and complex process which was far from neat or evenly paced for each pattern involved, and there is most certainly no consensus about all the details in the scholarly literature. There is still disagree-

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ment regarding the stages of grammaticalisation of these periphrastic constructions, the status of the auxiliaries(-to-be) and the participle of the lexical verb at any given stage, including its correlation with adjectival inflection. When grammaticalisation is underway, constructions made up of certain lexical items develop grammatical meanings, which results in reinterpreting the lexical items as serving grammatical functions. Thus, a lexical verb denoting possession like *have* can come to serve as a perfect auxiliary, something along the lines of 'I have him bound [i.e. in a bound state]' gradually turning into 'I have bound him [i.e. I've done the binding]'. This can further entail loss of morphosyntactic properties, such as the adjectival agreement inflections on participles which are being reanalysed as verbs in periphrastic constructions.

In this paper, I examine material from two manuscripts of the *Anglo-Saxon Chronicle* in order to trace the development of perfect and passive periphrases. In particular, I focus on the interaction between agreement marking, reanalysis and degree of grammaticalisation, demonstrating that there is a gradient cline from more to less grammaticalised constructions which correlates with the extent of losing adjectival agreement morphology on past participles. Quite importantly, the material does not support a hypothesis whereby loss of overt agreement is enabled by expected zero-marking – instead, abandoning agreement is an outward signal of grammaticalisation in progress. That much is established by comparing grammaticalising periphrastic structures to stative and adjectival ones, especially adjectives in predicative position serving as subject and object complements, the original functions of participles in perfects and passives before they underwent grammaticalisation. While agreement morphology on adjectives remains robust and stable throughout, the frequency with which participles show agreement is different in the three constructions (passive, *be-* and *have*-perfect), and the frequency with which participles are inflected diminishes over time. This is not due to analogical levelling in the paradigm: rather, the change in inflection reflects the degree of grammaticalisation of these periphrastic constructions.

Although there is by now a vast body of literature on grammaticalisation, it will suffice for present purposes to regard it as a 'process whereby lexemes or lexical items become grammatical […] in certain highly specifiable morphosyntactic contexts, and under specifiable pragmatic conditions' (Traugott 2003: 624). Grammaticalisation is often seen as a cover term for a wide array of inter-dependent changes. For instance, as part of its auxiliation as a marker of the perfect, the original possessive verb *have* was bleached of its lexical meaning of possession, ceasing to denote an event/situation separate from the event/situation denoted by the participle of the lexical verb with which it combines; consequently, auxiliary *have* was extended from ex-

clusively combining with transitive participles to being able to occur with any type of verb; all of this was followed by phonological reduction/erosion and cliticisation to *'s/'ve/'d* (by now even in the case of lexical *have*, as in *I've no money*).

Grammaticalisation usually goes hand in hand with reanalysis, which involves realigning the syntactic structure of a given construction in terms of its constituency and/or its dependency, or remaps the relations between a form and its functions/meanings. Although the exact nature of the link between grammaticalisation and reanalysis remains subject to an ongoing debate (for which see Detges, Waltereit, Winter-Froemel & Wolfsgruber 2021), I will here follow Haspelmath (1998) in conceiving of reanalysis as a mechanism of change that accompanies grammaticalisation, which can in turn be viewed as a unidirectional set of reanalyses; unlike reanalysis, which is in principle reversible, grammaticalisation cannot be reversed (cf. Hristov 2020: 25–27).

Ambiguity, the potential to perceive a construction in more than one way in terms of its structure and/or meaning, is commonly deemed to be an enabling factor which makes it possible for reanalysis to occur (see De Smet 2009). In what follows, I will return to the different instantiations of ambiguity/indeterminacy in my material, exploring whether it is an essential condition for such constructional change, especially the concomitant loss of agreement exponence in grammaticalising constructions. Based on my data, I conclude that morphosyntactic ambiguity (i.e. ambivalent or covert morphological marking) is not a necessary condition for reanalysis to take place and its role is unlikely to have been decisive in the reinterpretation and grammaticalisation processes under investigation.

As with grammaticalisation, it is no simple task to define the perfect as a grammatical category, including its very nature as a type of tense, aspect, both or neither (see McFadden & Alexiadou 2010, Drinka 2017: 47ff). The perfect normally designates events or situations which came about before a given temporal reference point but have some relevance to that temporal point, which can be past, present or future. In this domain, a distinction can be drawn between resultatives, denoting a state that exists as a result of a past action (e.g. *The gates are* (*now/still*) *locked*), as well as more dynamic anteriors/perfects, referring to past actions with current relevance (e.g. *I've* (*just*) *locked the gates* (*so you can't come in now*)). In the grammaticalisation of a perfect, a stative resultative construction based on a verb such as 'be' or 'have' can develop into an anterior/perfect proper (see Dahl 1985, Bybee, Perkins & Pagliuca 1994, Wischer 2004: 250–251, Drinka 2017: 52ff., §1.3, with references). Regarding the perfect as a unified category, below I group both

past perfects (pluperfects), whose temporal orientation point is in the past, and present perfects, whose temporal orientation point is in the present, as belonging to the same perfect category (which is not necessarily done by all scholars writing on this subject). In the Germanic languages, periphrastic perfects came to be built with 'be' or 'have' in combination with a past participle.

Similarly, a Germanic periphrastic passive, characteristically promoting the thematic patient argument of a predicate to the role of syntactic subject, can be defined as a construction with a copula and the past/passive participle of a transitive verb. As noted by Jones & Macleod (2018: 59), such constructions can denote both states and events, with eventive meanings often identified with a more advanced stage of grammaticalisation (as was the case with the perfect). This inherent indeterminacy is compounded by the fact that, quite apart from (inflected or uninflected) participles, there are also adjectives derived from participles. The latter are different from either type of participle. As well as being modifiable for grade, they can occur with *seem*, which participles proper cannot. Those participial adjectives can be demonstrated to behave like bona-fide adjectives (see Table 6). Acknowledging all the inevitable gradience and fluidity of language, in this paper I use a prefixed *proto-* in order to designate a structure that appears to have served as a source of a grammaticalised periphrastic construction, perhaps having started to move down the grammaticalisation cline but without having reached complete grammaticalisation. This prefix is sometimes bracketed in order to highlight cases of indeterminacy.

In sum, grammaticalisation is hardly a straightforward or monolithic process. Both 'have' and 'be' can be said to grammaticalise as auxiliaries in what can be more specifically referred to as auxiliation (for which see Wischer 2004, Kilpiö 2007, among others); furthermore, we also see a change in the category of the participle (from a verbal adjective to a lexical verb), which is hardly an instance of grammaticalising a content word into a function word (see Gisborne 2022); another unit that can be said to grammaticalise is the construction 'have/be + participle', a process that can be labelled as constructionalisation in the setting of Construction Grammar (for which see Traugott & Trousdale 2013). Obviously, 'have' undergoes the changes from content word > function word > clitic ('classic' grammaticalisation as reduction), so we can talk about that verb grammaticalising as an auxiliary. However, the change from copular to auxiliary 'be' is less clearly a case of grammaticalisation. With 'have', the change is from two predications to one, but 'be' only ever involves one predication/clause, irrespective of whether it is complemented by a noun phrase (*He is a doctor*), a prepositional phrase (*He is in the garden*),

or a participle (*He is arrived* [an earlier perfect, occurring until the 19th c.] or *He is arrested* [passive(-like)]), where the participle denotes the result state of a verb with a complex event structure. On the other hand, one could claim that the extension of the complementation possibilities of 'be' to include verbal elements is a case of Himmelmann's 'host-class expansion' and therefore is an example of grammaticalisation as expansion. In the light of this multiplicity, grammaticalisation is indeed a kind of cover-all term for an array of related grammatical changes.[1]

Having thus provided brief working definitions of the main terms and concepts of interest here, I will proceed to outline the development of perfects and passives in English (§1.2); in reviewing previous work, I will pay special attention to the loss of agreement inflection and the role of zero-exponence, including some important morphosyntactic alternations in the inflectional system of OE with a bearing on the analysis (§1.3). I will then introduce and justify the use of the *Anglo-Saxon Chronicle* as a data source (§2), and flesh out the methodology of the study (§3), before moving on to the analysis and discussion of my data and their implications for the research questions to do with the inflectional consequences of grammaticalisation on the extent to which various constructions have become entrenched.

1.2 Perfects and passives in English

As noted in the previous section, the English perfect and passive derive from copular and possessive constructions, where the lexical verbs *be*, *become* and *have* combined with participles which originally showed agreement either with the subject or with the object. For instance, OE *habban* 'have' often appeared with an object and a past participle which initially functioned as an agreeing accusative object complement, as in (1) (cf. Sprockel 1973: 206ff).

(1) *Ic   hæbbe   ðe   nu   todæg   **ge-set-ne**   ofer*
     I   have   thee.ACC.SG now   today   PREF-set-M.ACC.SG over
     rice...
     kingdoms
     'Today I have set you over kingdoms'; originally: 'I have you set/in a set state...'
                [CP, cited in Mitchell (1985: 287, 294), Denison (1993: 346)]

Have's stative meaning of possession was gradually bleached and gave way to a dynamic reading; so what used to be a complex transitive clause with

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an object and a participial object complement (SVOC$_O$), as a result of reanalysis, became a periphrastic perfect with *have* as an auxiliary and the participle as the main/lexical verb (SV$_{AUX}$OV$_{MAIN}$). Though we can loosely conceive of this process as involving a shift from stative to dynamic, it might be more accurate to talk of a change from a property-denoting adjective to an eventuality-denoting verbal participle (see Wischer 2004, McFadden & Alexiadou 2010, for further discussion involving finer-grained aspectual distinctions). We therefore get complex shifts in the semantics of the construction (which comes to denote an event rather than a state), the lexical category of the participle (which goes from adjectival to verbal), and the lexical-aspectual category of the verb the participle belongs to (with extension to verbs such as 'use up' and ultimately to atelic verbs of motion).

Importantly, the participle did not always agree, as becomes apparent from (2). Rather than representing an SOVC$_O$ clause, (2) might already be better interpreted as SOV$_{AUX}$V$_{MAIN}$, due to clues favouring a perfect reading, such as the dynamic adverbial 'quickly' and the lack of agreement on the participle.

(2)   *Hraðe*   *heo*   *æþeling-a*   *an-ne*   *hæfde* / *fæste*
      quickly   she   noble-GEN.PL   one-M.ACC.SG   had   fast
      befang-en
      seize-PPTCP

      'Quickly she grasped firmly one of the nobles'
                           [*Beowulf*, 1294, cited in Mitchell (1985: 288),
                                        Denison (1993: 347)]

Denison (1993: 341) offers the following criteria for determining whether a construction is best treated as an SVOC$_O$ clause with lexical *have* or as a perfect with auxiliary *have* (SV$_{AUX}$OV$_{MAIN}$). SVOC$_O$ presupposes:

- non-adjacency of *have* and the participle;

- accusative adjectival inflection on the participle;

- a stative context where *have* can mean 'possess' and both *have* and the participle can refer to states.

Conversely, analysing *have* as an auxiliary presupposes:

- adjacency of *have* and the participle;

- no adjectival inflection on the participle;

- similar patterns in a non-stative context;

- similar patterns with subjects that cannot be possessors and/or objects that cannot be possessed.

Of course, these are not envisaged as hard-and-fast rules which will invariably settle matters unequivocally. For example, dynamic perfect/passive vs. stative possessive/copular readings do not neatly correlate with presence vs. absence of overt agreement inflections (see Jones & Macleod 2018: 65–66, Hristov 2020: Chapters 3 and 4, as well as the data below). Similarly, the influence of the order of constituents is far from straightforward and follows complex principles, including interplay between agreement inflection and the relative order of the verb, the object and the participle, or V2/V-final configurations, for which there will not be enough space in this paper (for further discussion, consult Mitchell 1985: §703ff, Kilpiö 2007, Łecki 2010: esp. 172–173, Hristov 2020: 93 fn 5; cf. (8) below).

Of the criteria above, I will be mostly relying on semantic interpretation, because it is an independent measure which can be deployed without paying heed to the other diagnostics, ensuring non-circularity of the argument. Since this is a transitional stage and the formal factors are often in conflict and/or indecisive, it seems especially expedient to appeal to semantics in context, giving it priority over the other diagnostics of perfectivity/grammaticalisation. It will be particularly instructive to additionally establish how such semantic interpretation as possessive stative vs. dynamic/non-stative perfect correlates with the morphosyntactic phenomenon of agreement. This statistical correlation is explored in further detail in the discussion of Table 7.

Numerous studies show that agreeing participles were much fewer than non-agreeing ones, and became even less common over time (Traugott 1992: 190, Denison 1993: 346). Some sources record between 14% and 25% of declined participles in OE text samples (see Mitchell 1985: §§709–710), whereas the overall number of declined forms in the OE section of the Helsinki Corpus is approximately 10% (Wischer 2004: 244). According to the Dictionary of Old English entry for *habban*, Section IV.C. (based on the DOE corpus; http://tapor.library.utoronto.ca/doe/, accessed on 27 Feb 2017), out of ca. 2,440 transitive *have*-perfects, only 220 have agreeing participles. In his sample, Kilpiö (2007: 329) has found that 11.6% of participles received inflection between the years 850 and 950, and 5.9% between 950 and 1050. In what follows, such bigger corpus data will be supplemented with the more circumscribed *Anglo-Saxon Chronicle* sample of the current study, whose in-depth philological analysis makes it possible to uncover some finer-grained distinctions, as well as novel links to potential causality and hitherto undis-

covered parallels to other aspects of grammar.

The reanalysis of the participle as part of the verbal group, rather than an agreeing adjectival object complement, is traditionally assumed to have been enabled by constructions with NT.ACC.SG objects, which had no overt accusative marking on the object or on the participle (see Traugott 1992: 192, Denison 1993: 364, Kilpiö 2007: esp. 337, 341, Łecki 2010: 152, Johannsen 2016: 25). Mitchell (1985: §709) also singles out these zero-inflected forms as 'an analogical factor in the ultimate disappearance of the inflected forms'. Since they were morphosyntactically ambiguous, it was possible for the reinterpretation to take place; hence the grouping in (3 a) must have given way to that in (3 b). According to the traditional account, such ambiguous contexts prompted agreement to be discarded across-the-board.

(3) (a) *we habbaþ* [*geweorc geworht*]
         'we have the stronghold in-a-state-of-builtness'

     (b) *we* [*habbaþ*] *geweorc* [*geworht*]
         'we have built the stronghold'

                                        [from Traugott (1992: 192)]

Perfects and passives based on *beon* 'be' and *weorðan* 'become' arose in a similar fashion – out of copular clauses with intransitive (perfect) and transitive (passive) participles, both of which initially functioned as predicative complements.[2] In the early stages, if the participle in a *be*-perfect or passive was inflected, the agreement was with the nominative subject, as in (4) – just what one would expect from a typical subject complement.

(4) *hie*   *wær-on*   *ge-cum-en-e*
     they.NOM.3PL be.PAST-PL PREF-come-PPTCP-NOM.PL
     'They were/had come'

Elsness (1997: 261–263) observes that, in comparison with present perfects with *have*, a somewhat larger proportion of the recorded *be*-perfects occur with inflected participles (in the nominative case). Elsness considers this a sign that their transition to a genuine perfect construction is a little less obvious. In Chankova's (2008: 98–99) databank of OE, 7.06% of participles exhibit agreement in constructions with *habban* vs. 21.43% in *be*-perfects. The higher number of agreeing participles with *be*-perfects supports the hypothesis that these constructions were being grammaticalised at a slower rate compared to

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2 Many scholars cast doubt on the auxiliary credentials of *weorðan* (and sometimes *beon*); see Petre (2014: 54–57, 118–122) and Jones & Macleod (2018).

structures with *habban*, a claim to which I return below.[3] Before I do so, it is necessary at this stage to dwell on participial inflection in a little more detail – this will provide a solid foundation for the analysis presented in subsequent sections.

1.3 Remarks on participial inflection

Old English participles are inflected like adjectives, if inflected at all, and, like adjectives, they take strong endings when they are used predicatively, although participles might not always behave in exactly the same way as adjectives in terms of the presence, the absence or the shape of the morphemes they can take. Table 1 presents the standard Early[4] West Saxon declension for monosyllabic adjectives (cf. Ringe & Taylor 2014: 194–195).[5]

	Masculine		Feminine		Neuter	
	NOM	ACC	NOM	ACC	NOM	ACC
SG	– (*gōd, glæd*)	-ne (*gōdne, glædne*)	–/-u (*gōd, gladu*)	-e (*gōde, glade*)	– (*gōd, glæd*)	
PL	-e (*gōde, glade*)		-a, -e (*gōda, glada, gōde, glade*)		–/-u (*gōd, glædu*)	

Table 1   Partial strong adjectival declension in OE

Things can be more complicated for disyllables, including the majority of participles, since adjectival inflections had an increased tendency to be dropped from polysyllables as the OE period wore on, reaching its culmination by the time of Middle English (see Mossé 1952: §74, Denison 1993: 347, Hogg & Fulk

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3 An independent measure of a slower rate of grammaticalisation is supplied by a higher degree of semantic compositionality (to be discussed in Section 6). McFadden & Alexiadou (2010) likewise independently conclude that *be*-perfects remained underdeveloped compared to those with *have*.

4 The relationship between Early and Late West Saxon is not only chronological: Early West Saxon shows a number of Mercian orthographic features, and the treatment of front vowels and diphthongs in Late West Saxon suggests that this dialect was based on a regional or social variety different from that of Alfredian texts (see Fulk 2014: 4–5, with references; cf. Ringe & Taylor 2014: 338). I therefore capitalise *Early* and *Late* in accordance with these considerations.

5 On strong vs. weak adjectives, see Sprockel (1965: 186ff.), Sprockel (1973: Chap. 9), Mitchell (1985: §§102–141), Hogg & Fulk (2011: §§4.1–4.2), Malak (2021); *gōd* 'good' represents a heavy stem (with a long vowel), whereas *glæd/gla.d-u* 'glad' represents a light one (short vowel) (see further Bliss 1981, Donoghue 1987: 9ff., Fulk 2010: 127, 134, Terasawa 2011: 30–31, Goering 2016, discussing the effects of syllable weight on *-u* deletion/apocope, as well as a principle whereby two light syllables may be subjected to resolution as a single heavy one, to be revisited below).

2011: §4.53ff., §6.29). Apocope of *-u* is phonologically expected in some but not other disyllabic patterns, although in practice the inflection of disyllables can be affected by analogy, so the actual ending may not be what is phonologically expected (see Campbell 1959: §§345–354, §638, §§641–643, §646, §§651–653, Hogg 1992: §§6.18–6.24, as well as Section 3 below). Feminine singular forms in *-u* are rare from very early on, and there are in fact no feminine singulars with *-u* in the entries of the *Anglo-Saxon Chronicle* between 734 and 1001 (Mitchell 1985: §33, §738; cf. Bauch 1912: 66–69 for poetic examples). In the plural, the adjective or participle can either remain uninflected or receive a generalised *-e* for all genders, with feminine plurals in *-a* and neuter plurals in *-u* being rather rare (Sprockel 1965: 191–192, 219, Sprockel 1973: 217, Mitchell 1985: §34, §760). While plurals with missing inflection do occur, they appear to be the exception rather than the rule.

Furthermore, there are notable differences between Early and Late West Saxon, but despite all these caveats and setbacks arising from abundant synchronic and diachronic variability, taking the normalised set of endings above as a point of departure for what might be expected appears to work even for my later samples, where the use of endings is surprisingly consistent despite the late date of composition and the even later date of copying (see Section 5). It is thus reasonably safe to assume that, even in the later periods discussed here, there is a possibility for an overt inflection where it is standardly expected, even though it might not exactly match the form from the paradigm above. Therefore, aware of the limitations of such an approach, I adopt this idealised paradigm as a starting point and standard of comparison for the sake of consistency of expectations across my samples. It is a harmless abstraction which allows me to approach the data in a unified manner. Expecting that language users could have declined a certain participle, this paper sets out to determine whether they actually did or did not, additionally trying to shed light on why they did or did not.

Looking at Table 1, one can immediately spot that there were legitimately zero-inflected forms in the nominative too, even more so than the accusative, but they do not seem to have led to loss of agreement in the passive and *be*-perfect on the same massive scale as with the possessive perfect (as noted in the previous section and confirmed below), so there must be more to the retreat of agreement than the triggering/bridging context of legitimately inflectionless forms. Since type frequency in a morphological paradigm is not what is decisive in such processes, the question is whether language users came across more zero-endings in passives or perfects at token level. For instance, one may wonder whether perfects have a high incidence of inanimate neuter objects, where zero-endings are expected. This is what I turn to in the

rest of this paper, where I try to establish if the influence of zero-marking was decisive in discarding agreement across-the-board and grammaticalising perfect and passive constructions.[6] Throughout, I will be focusing on the interaction of morphological marking, reanalysis and grammaticalisation, building on Hristov (2020). My material indicates that legitimate zero-morphology is irrelevant as a triggering factor.[7] The loss of overt morphology is instead useful as a diagnostic of the degree of grammaticalisation of each construction. What emerges is a gradient cline of periphrastic constructions in terms of their degree of entrenchment: passives remain closest to copular clauses, while *be*- and *become*-perfects are intermediate between passives and *have*-perfects, the most highly grammaticalised of those structures.

This introduction has supplied working definitions and briefly outlined the major issues in the development of OE periphrastic constructions and participial inflection. In the next section, I first provide some information about the *Anglo-Saxon Chronicles* and then present the research methodology and results from investigating two samples of MS. A entries (Section 3). Section 4 draws some preliminary conclusions, while Section 5 confirms them with material from the later *Peterborough Chronicle* (MS. E). Finally, Section 6 consolidates the findings for the entirety of MS. A. In line with the aforementioned objectives, in the remainder of this paper, I will be tracing the role of the loss of inflection, aiming to ascertain its link to reanalysis and grammaticalisation: more specifically, is it a trigger or a consequence of grammaticalisation and is it in turn enabled by cases of expected zero-morphology? My other main goal will be to use the diagnostics from the current section in order to measure how grammaticalised the various structures under investigation are, compar-

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6 These two things do not necessarily go hand-in-hand. Some languages can have a grammaticalised passive and/or perfect with viable agreement (e.g. French, Bulgarian), whereas in others grammaticalisation might be accompanied by deteriorating agreement (e.g. Macedonian/Bulgarian *have*-perfects, for which see Hristov 2020: Chapter 7, 2023; cf. Jones & Macleod 2018: 66). This divergent behaviour probably has to do with those languages' better preserved agreement morphology and morphological marking more generally compared to the wholesale loss of morphology in the history of English.

7 This claim receives support from languages with grammaticalised or grammaticalising perfects where agreement is (being) lost without analogous zero-inflected contexts (e.g. Bulgarian/Macedonian, as discussed in the footnote above). However, it is theoretically possible that the first instances of reanalysis as a perfect in English might have been facilitated by constructions with zero-marking without there necessarily being a correlation between frequency of legitimate zero-morphology and frequency of clear non-inflection as the construction spreads (anonymous referee). Therefore, a careful distinction might be drawn between the actuation and the implementation/diffusion of the change. In any case, the material presented below undermines the overall role of zero-marking, especially the fact that, compared to the perfect, the English passive evinces more legitimate zero-inflection alongside more robust overt marking.

ing them to one another and to the overall linguistic output of the *Anglo-Saxon Chronicle*. This will allow some novel points to be made, shedding more light on the rise of periphrastic constructions in English. Those are summarised in the Conclusion (Section 7).

2   THE ANGLO-SAXON CHRONICLES

The *Anglo-Saxon Chronicles* might have originated as Easter tables to determine the dates of Easter, to which more extensive entries describing each year's events were subsequently added. This body of annals was selected for the present study for several reasons: firstly, it is predominantly made up of reasonably straightforward unadorned prose (rather than poetry); secondly, it is 'home-grown' rather than directly translated from Latin; thirdly, it encompasses a significant timespan. All of this makes it fertile ground for linguistic research, including research into the grammaticalisation of verbal periphrases.

In terms of genre and stylistics, the *Anglo-Saxon Chronicles* are sequences of non-translated prose passages which describe historical events in a plain style with no pretensions to special literary effects, except for a few entries in alliterative verse. Because of their extensive timespan, the annals allow for diachronic comparison of similar samples which show how the language gradually evolves. Moreover, investigating a text in its entirety affords insights into the context and the idiolects of individual scribes, as opposed to harvesting a wide range of isolated occurrences from large-scale electronic corpora with less emphasis on someone's output as a whole.

Seven versions of the *Anglo-Saxon Chronicle* exist, originating from different locations and sometimes recording different events, though they seem to share a common source until 891, having perhaps been first commissioned by King Alfred. The earliest surviving manuscript (Corpus Christi College, Cambridge, MS. 173) is known by the name of its donor as the *Parker Chronicle*, normally cited as Manuscript A. The first part was probably written some time after the entry for 891, which is when the first hand finishes, and it was then continued up to 1093 (see Plummer & Earle 1892: x, Whitelock, Douglas & Tucker 1961: xi–xxix). Although MS. A is the oldest of the surviving copies of the *Chronicle*, it is not the author's original and other versions occasionally preserve better readings (see Sprockel 1965, Bately 1986).

The other manuscript of interest here is most famously known as the *Peterborough Chronicle*. It is also designated as Manuscript E (Oxford, Bodleian Library, MS. Laud 636), and was most probably initially copied in 1121 or 1122 at Peterborough and maintained in various hands until 1154 (see Plummer & Earle 1892: xii, Irvine 2004). This is a representative of the so-called Northern

Recension of the *Chronicle*. The transcripts I used for both manuscripts come from http://asc.jebbo.co.uk (accessed on 19 Sept 2016), verified with Plummer & Earle's (1892) parallel edition, as well as the more recent collaborative editions (Bately 1986, Irvine 2004). In order to ensure accurate interpretation and get a second, independent opinion on the data, I consulted the translations from Whitelock et al. (1961).

3 Research methodology and preliminary findings

The rest of the paper looks in detail at a selection of entries: MS. A 703–924, split into two parts according to changes of hand (Sections 3 and 4),[8] followed by MS. E for the years 991–1012 (Section 5). Section 6 then covers the whole of MS. A. Both *have-* and *be*-perfects are examined and compared to passive or potentially stative constructions with *beon* 'be' and *weorðan* 'become'. The material is divided into three categories – examples with or without overt agreement, and those where zero-marking is expected anyway (see Tables 2–6). The year of the entry (according to the manuscript, which is not always historically accurate) is indicated in square brackets after each example sentence. A modern translation is supplied from Whitelock et al. (1961), with a few minor modifications in one or two places. The glosses are mine, adopting the conventions and abbreviations of the Leipzig Glossing Rules.

In a nutshell, the generalised results for the entire manuscript do confirm my hypotheses set out in the previous sections, including the statistical significance of the data in their entirety. Below are the overall figures for the three main types of pattern (computed on the basis of Table 6, Section 6):

	with agreement	no agreement	zero-morphology morphology expected
All adjectival constructions (totals)	670	9	186
Both types of passive(-like) construction (totals)	39	20	110
All types of perfect(-like) construction (totals)	6	18	32

Table 2 Generalised agreement patterns in MS. A of the *Anglo-Saxon Chronicle*

8 The entry for 703 was selected as a convenient starting point for the 8th century, further ensuring a sample of a size comparable to that of the second hand.

Remaining closer to adjectival constructions, passives preserve agreement much more than perfects, irrespective of expected zero-morphology. Statistical tests further confirm that this distribution cannot have arisen by chance, with $\chi^2 = 338.69$ and $p < 0.00001$, so the probability that the situation in Table 2 could have occurred under the null hypothesis that the variables are independent of one another is extremely low. In other words, the behaviour of each pattern differs in a statistically significant way from the rest and the distribution of the agreement ratios above is unlikely to be due to a purely accidental coincidence. There is a very strong correlation between the type of construction and the way it agrees.

Before I return to the composite numbers in Section 6, however, it is worthwhile to examine more closely a selection of smaller samples in order to illustrate how the perfect gradually comes into its own, as well as to muster further support for my hypotheses with qualitative analysis and comparison, rather than raw numbers alone. In line with my comments about the value of such a close-reading philological approach, I use the smaller samples in order to present the relevant constructions in their surrounding linguistic and textual context, since some crucial points and distinctions would be masked if I were to conflate all sections of the MS., as well as the different grammatical (sub-)patterns, from the very outset. Crucially, we ought not to lose sight of the fact that there were different scribes involved in the compilation of the chronicle, so examining separate portions individually can bring to the fore distinctions and developments that might remain blurred or hidden if we merely collated all the available material.

Unlike large-scale corpus studies (cited and made use of in Section 1), attention is paid here to the idiolects and individual choices of actual users of the language. This approach has the added value of tracking language use and language change in what approximates a real user/speaker, rather than a conglomerate of disparate tokens from a huge database. The language of those user approximations is subjected to detailed scrutiny and meticulous philological analysis in its entirety, which would have been unfeasible with a large corpus. For a dead language such as Old English, this is the closest insight that we can gain into separate native speakers' internal grammars (despite the attendant issues of authorship and textual transmission). Examining the entire chronicle text in portions gives us a window into contrasts and patterns of usage which could not have been automatically extracted from large databases: for instance, indeterminate usage, including the behaviour of more verbal participles in object complement function vs. more adjectival ones, may stand out only when inspecting the surrounding (con)text; the same applies to fine semantic differentiation which cannot be coded for in an

electronic corpus.

Without losing sight of the big picture from other scholars' corpus work, the results obtained with these methods can, upon examination of the entire manuscript, be tied to other areas of the grammar of this document – for instance, the morphological treatment of Latin names in object complement function. All of this allows us to draw conclusions which would otherwise have remained hidden in the vast sea of data – in particular, clues as to why those scribes seem to choose inflection for one pattern and no inflection for another, as well as why the links between objects and object complements were weaker than those between subjects and their subject complements. These novel findings considerably improve our understanding of the mechanisms of change involved. Only then should they be supplemented with data from wider sources, which is what I do at the end of the paper. Most importantly, this philological approach allows us to put together a more complete picture of the scribes' overall language, enabling us to suggest not only what structures they employed but also why they employed one structure in preference to another (in view of their output in general). With these aims and background assumptions in mind, I now proceed to examine different portions of the manuscript.

3.1 Results for MS. A's first hand (703–891)

Starting with the output of MS. A's first scribe, I found hardly any perfects in this section of the *Chronicle* (703–891, approximately 5,465 words). The scarcity of perfects must in part be due to the early date of composition – too early for the perfect to be entrenched enough in the grammatical system to appear in significant numbers. It is unclear how many of the *have*-constructions are genuine perfects and how many are ambiguously stative. Indeed, most of the examples here can be given a stative interpretation too,[9] including (5) and (6) (cf. Macleod 2012: 108–109, 118); (6) can even receive a causative interpretation.

(5) *oþ þæt hie hine* **of-slæg-en-ne** *hæfd-on*
until they him.3M.ACC.SG PREF-slay-PPTCP-M.ACC.SG had-PL
'...until they had slain him'/'until they had him slain/in-a-slain-state' [755]

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9 PDE *He was frightened*, for instance, is ambiguously passive ('He was frightened by a noise last night') or adjectival/stative ('He was very frightened'), whereas *The synod was gathered* in earlier English would have been ambiguously perfect ('The synod had gathered/assembled'), passive (of 'Someone (had) gathered the synod'), or stative ('The synod was ready/present/there').

	with agreement	no agreement	zero-morphology expected	total
Have-perfects (transitive)	2	2	0	**4**
Be-perfects (intransitive)	0	0	1	**1**
Passives with *beon*	7	1	20	**28**
Passives with *weorðan*	7	1	12	**20**
Ambiguous passives/statives with *beon*	2	0	9	**11**
Ambiguous *be*-perfects	0	0	1	**1**

Table 3   Perfects and passives in Manuscript A of the *Anglo-Saxon Chronicle* (703–891)

(6)   *7   þa   gat-u   him   to **be-loc-en***
     and that.ACC.PL gate(NT)-ACC.PL them to PREF-lock-PPTCP
     hæfd-on
     had-PL
     'and [they] had locked the gates against them'/'they had the gates locked'   [755]

Unlike (6), (5) shows the agreement expected of a M.ACC.SG participial object complement. For (6), NT.PL should be indicated with *-u* on *belocen*, but the *-u* is not there, so as far as the *have*-perfects here are concerned, agreement is dropped even without cases of ambiguous zero-marking. Apocope of *-u* might be phonologically expected not only after a heavy syllable (as shown in Table 1), but also after two light syllables, as in *be-**locen***, ignoring the unstressed prefix (Hogg 1992: §6.18, §6.20, Hogg 1997, Hogg & Fulk 2011: §4.41ff.). Nevertheless, I still treat the latter case as loss of what could have been overt agreement, perhaps somewhat arbitrarily, but mainly for the sake of methodological consistency, as outlined in the comments beneath Table 1. Hogg (1997: 119, with references) mentions a similar approach, which restricts the 'rule of expected apocope' only to environments after a heavy

syllable, which is what I do here too. More importantly, there are attestations elsewhere in the body of surviving Old English texts where (nominative) neuter plural *gatu* does agree with NT.PL *belocenu* (notably in a passive), justifying my expectation of an overt *-u* morpheme in (6) (see Ringe & Taylor 2014: 432). Apocopated *-u* in light disyllables can indeed be regularly restored due to analogy even in Early West Saxon, so all things considered, overt agreement was an option for (6) (see Hogg 1992: §6.24(1), Hogg 1997, Fulk 2010, as well as Hogg & Fulk 2011: §3.67, §§3.70–3.72, §4.43, making a case that 'apocope had been lost from the synchronic phonology of Late West Saxon', in disyllabic nouns from the *a*-declension and in the declension of adjectives alike).[10]

In (7), the (proto-)perfect with *have* and an agreeing participle to a certain extent parallels the second clause, which has an agreeing accusative modifier (*ungecyndne*) of the direct object (*cyning*), as well as the preterite plural lexical verb *underfengon*. Despite the syntactic parallelism between the two clauses and the adjectival agreement, it is clear that those people ('they') no longer literally 'have' Osbert as king. Therefore, the interpretation should be perfect-like (cf. Macleod 2012: 120). The lexical meaning of possession has been bleached in favour of more abstract anteriority.[11]

(7) *hie*   **hæfd-un** *hiera* *cyning*   **aworpen-ne**   *Osbryht*,
    they   had-PL   their king(M)[ACC.SG] deposed-M.ACC.SG Osbert
    7   **ungecynd-ne**   *cyning*
    and   with.no.hereditary.right-M.ACC.SG king(M)[ACC.SG]
    underfeng-on
    took-PL

    'they had deposed their king Osbert and took a king with no
    hereditary right'   [867]

Attention should also be drawn to the word order in (8) (and elsewhere), with separation of the auxiliary and the participle (cf. Sprockel 1973: 247–

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10 Vindicating my approach to *-u* in disyllabic adjectival and participial stems, Hogg & Fulk (2011: §4.48) recapitulate that:

> It might be expected that *-u* would be apocopated after two light syllables but retained after a heavy and a light syllable. In fact, however, apocope usually does not apply even after two light syllables, hence examples such as CP *manegu* (2x), PsGl(A) 109.6 *monigu*, Li *monigo* (frequent). This is in striking contrast to the situation with nouns, in which apocope is usually extended [...]

11 Mitchell (1985: §728) counters that the original sense was 'They had (=held) their king Osbryht (having been) rejected'.

248, Hristov 2020: 93 fn. 5, with references):

(8)   *hine*   **hæfd-e** *ær*   *Offa Miercna*   *cyning 7*
       him.3M.ACC.SG had-SG previously Offa of.Mercians king   and
       Beorhtric Wesseaxna   *cyning* **afliemed**... *on Fronclond*...
       Brihtric   of.West.Saxons king   banished   on France

       'Earlier, Offa, king of the Mercians, and Brihtric, king of the West
       Saxons, had driven him... to France...'   [836]

Such separation might point to a lesser degree of grammaticalisation, but at the same time there is no agreement, so this is obviously a transitional stage and Denison's criteria from Section 1 are best applied in tandem, without expecting them to always provide clear-cut categorisation as perfect or non-perfect.[12] The conflicting predictions of these heuristics point to the ongoing process of grammaticalisation, which proceeds stepwise. Both (7) and (8) show semantic bleaching of *have*, whereby the referent of the object is not around and cannot be owned/possessed, but the agreement does not seem to be affected by that.[13] Probably due to chance, there are no cases in this sample of perfects with expected zero-morphology – the alleged original foothold for the loss of agreement.

    A comparison to the (proto-)passive would be especially instructive. There are many more prospective passives than perfects in the sample, which might imply that the passive has attained more advanced grammaticalisation. On the other hand, the greater number might be due to the subject-matter or the narrative style. Interestingly, the attributive adjective *wunderleca* in (9) takes the traditional strong F.NOM.PL -*a*, whereas the -*e* on the predicative participle might have been influenced by the M.NOM.PL. It is widely attested as an alternative in the feminine as well, however (see Table 1). The different markers might suggest that grammaticalising periphrastic constructions like

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12 As pointed out by an anonymous referee, perfects in Modern Dutch and German are just as grammaticalised as the English ones, despite verb-second and verb-final word order (cf. earlier comments, as well as Bliss 1981). The grouping of auxiliary and main verb in English is therefore arguably a later process, and might have been part of other syntactic shifts (at least partially) independent of the grammaticalisation of the perfect. After the entry for 894, which is the last entry containing an agreeing *have*-perfect in this manuscript, a marked tendency makes itself felt to place the auxiliary and participle next to each other (especially in the *have*-perfects demonstrating loss of overt agreement), so more and more signs of grammaticalisation appear to gradually align, including loss of agreement, extension to intransitives, as well as syntactic adjacency. By contrast, all four agreeing *have*-perfects (in the span of annals between 658 and 894) place the participle after the object, with the auxiliary separated from the participle in three of them.

13 With a meagre four examples in Table 3, the proportion is 50:50. More data is supplied in later sections.

the passive were felt as morphosyntactically distinct from ordinary adjectival constructions, though this needs to be confirmed with more quantitative research, where predicative adjectives in subject/object complement functions will serve as better comparanda than attributive adjectives (see Section 6).[14]

(9) **wunderlec-a**   *nędr-an*   *wær-on* **ge-sewen-e**
    marvellous-F.NOM.PL adder(F)-NOM.PL were-PL PREF-seen-NOM.PL
    '...marvellous adders were seen...'   [773]

The majority of passives are ambiguous as to presence or absence of agreement due to the zero-marking for those slots of the strong adjectival paradigm (see Tables 1, 2 and 3). It is then impossible to tell whether *todęled* in (10) flags agreement with a null exponent or whether agreement has broken down. Nevertheless, the numerical advantage of the legitimate zero-marked forms has not led to the loss of morphology where it is expected. Essentially, we get zero-marking in the singular and *-e* in the plural, often in close proximity:[15]

(10) *þa*   *wearþ*   *þæt*   *rice*
     then   became[SG]   that.NT.NOM.SG   kingdom(NT)[NOM.SG]
     to-dęl-ed   *on* *.v.* 7   *.v.* *kyning-as*   *to*
     PREF-divide-PPTCP   on   5   and 5   king(M)-NOM.PL to
     ge-halg-od-e
     PREF-hallow-PPTCP-M.NOM.PL

     'the kingdom was then divided into five, and five kings were
     consecrated to it'   [887]

Only one passive in this selection is missing its plural agreement. There is no NT.NOM.PL *-u* on *gefohten* in (11) – a stem with a heavy plus light syllable, where phonology would favour retention of *-u* (Sprockel 1965: 74, 80, 190–191, Hogg 1992: §6.18ff., Hogg 1997; cf. *ōðr-u* in (20) below, with a heavy + light syncopated syllable).[16]

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14 On whether *gesewene* could be an adjective, 'visible', see Mitchell (1985: §766). If vowel reduction in unstressed syllables was already underway and both *-a* and *-e* were pronounced as schwa, the *-a* spelling could conceivably be meant to indicate non-palatalisation of the preceding <c>.

15 *Kyningas* appears in the nominative plural, rather than the partitive genitive plural, which might be expected in the context of numerals. Mitchell (1985: §548) observes that partitive genitives are less frequent with numerals under twenty.

16 It cannot be ruled out that *weorðan* is a lexical verb here, meaning 'occur, take place'.

(11) þæs geares **wurd-on** .viiii. folc gefeoht
that year became-PL 9 folk fight(NT)[NOM.PL]

ge-foht-en
PREF-fought-PPTCP

'during that year nine general engagements were fought...' [871]

NT.PL -*u* might have been eliminated in *gefohten* because of analogical pressure from the zero NT.PL cognate noun *gefeoht*, with phonologically and grammatically 'licensed' *u*-deletion. Sprockel (1973: §11.3.3, §12.3) further remarks that, in the *Parker Chronicle*, *be*-perfects, as well as *be-/become*-passives, with neuter plural subjects tend to lose their participial agreement more than masculine plural ones. It will emerge below that F.SG -*u* also tends to be dropped on a regular basis, as noted in discussing the idealised set of Early West Saxon endings in Table 1.

Mitchell's (1985: §760) conclusion regarding agreement in the passive relies on analogy of legitimate zero-forms:

> The absence of -*u* in the feminine singular forms is apparent early and can be explained by the working of analogy, for the majority of participles properly had the nominative singular ending – ['zero']; [...] The sporadic early examples of pl. – can be similarly explained by reference to the existence of both feminine and neuter nouns which had – in the nominative plural.

This suggestion might work for the spread of zero-marking in the NOM.SG (the majority form) or the generalised -*e* in the plural. However, there are problems arising from such a claim regarding the spread of zero plural forms: those were never the majority in my samples and the data below prove resistant to such analogical levelling.

Thus, Table 3 confirms that the fledgling perfect is very rare in this early portion of the chronicle and agreement is either randomly present or absent where it ought to, or at least can potentially, be overt, even without cases of expected zero-morphology. Semantics does not seem to directly constrain agreement, in that an unequivocally perfect reading can be enforced in both agreeing and non-agreeing contexts. A lot of these (proto-)perfects can still be given a stative interpretation and the perfecthood criteria regarding word order and inflection do not produce conclusive results as to whether these structures are really grammaticalised or not, as might be expected in the early stages of evolution into a periphrastic construction. And yet, there are already some examples with unequivocal semantic bleaching and a passive participle

which is treated differently in terms of inflection from a co-occurring attributive adjective. All of this evidence testifies to some incipient grammaticalisation of perfects and passives being well underway. Passives with *beon* and *weorðan* are attested in greater numbers and strongly suggest that loss of non-zero agreement cannot be linked to rampant zero-exponence. Although legitimate zero-exponence in the singular is predominant, this has hardly resulted in loss of plural *-e*. Having highlighted the major developments in the earliest layer of the chronicle, I now move on to the trends in the output of MS. A's second hand.

3.2   MS. A results after the second hand commences (892–924)

The entries for 892–924 are less telegraphic and far more extensive than the previous ones. They can also be said to form a coherent unit in view of the change of hand (see Plummer & Earle 1892, Bately 1986: xxiff., Macleod 2012: 75). The total word count of the entire sample is 4,524 words, about 1,000 words less than the total of the preceding sample (5,465 words). Most likely due to the different scribes involved, the style is accordingly slightly different after the second hand commences, and that might have to do with some of the differences in usage that I record – more perfects and fewer bona-fide passives than in the earlier, larger sample (see Table 4). The genre and subject-matter are still indisputably the same, however, so the observed differences must for the most part be genuinely linguistic. The narrative style, albeit different, is not too far removed from that of the preceding entries, and neither is the subject-matter of what the annals describe, so the authorial/scribal preference for more perfects is likely to be at least in part dictated by the increasing grammaticalisation of the perfect, and hence its increasing frequency in the language, not just an idiosyncratic individual stylistic choice or a whim on the part of the author/scribe.[17] Although most of the earlier entries are themselves more brief/matter-of-fact, there is no reason why perfects should not have been used so much. Even though pluperfects might be favoured by more complex narrative structures in which relative temporality may be at issue, the narrative structures in both samples were rather similar, despite the varying length of the entries. The higher relative number of perfects here must therefore point to greater grammaticalisation, whereas passives do not appear to fare particularly well on the rising frequency front. They are often in competition with impersonal constructions with *mon* 'one'. The reduced

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17 For the role of frequency in grammaticalisation, see Bybee (2003); cf. Macleod (2012) for more on the interchangeability of perfect and preterite in Old English, while grammaticalisation was still in progress.

	with agreement	no agreement	zero-morphology expected	total
Have-perfects (transitive)	1 (M.SG)	10 (M.SG, F.SG, PL)	11 (NT.SG, NT.PL, etc.)	**22**
Have-perfects (intransitive)	0	0	1 (no OBJ)	**1**
Be-perfects (intransitive)	1 (PL)	2 (PL)	7 (M/NT.SG)	**10**
Weorðan-perfects (intransitive)	0	1 (PL)	0	**1**
Passives with *beon*	2 (PL)	1 (F.SG)	2 (M.SG)	**5**
Passives with *weorðan*	3 (PL)	0	5 (M.SG)	**8**
Ambiguous passives/statives with *beon*	5 (PL)	3 (F.SG)	5 (M/NT.SG)	**13**
Ambiguous *be*-perfects/ passives/statives	2 (PL)	1 (F.SG)	0	**3**

Table 4   Perfects and passives in Manuscript A of the *Anglo-Saxon Chronicle* (892–924)

number of passives would hardly indicate a reversal in grammaticalisation,[18] so in view of this and the small sizes of the samples, it is not warranted to draw ironclad conclusions before investigating the rest of the available OE data (cf. Section 6 and Petre 2014).

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18 In line with the introductory comments on the unidirectionality and irreversibility of grammaticalisation, de-grammaticalisation is in principle unlikely, particularly in view of current linguistic theory and the body of evidence it has amassed (though see further Willis 2017 and the contributions to Detges et al. 2021). It is conceivable, however, that the competition with impersonal *mon* did slow down or otherwise temporarily hamper the grammaticalisation of periphrastic passives (cf. the figures for the various passive constructions supplied in Sprockel 1973: 210–211). Strictly speaking, even if de-grammaticalisation of passives had taken place, this would have resulted not in a decline in the occurrence of the relevant surface forms, but in an increase in their semantic and syntactic compositionality.

In this section of the *Chronicle*, agreement has virtually disappeared from the perfect, but not from the passive. There are only two unambiguous perfects that still retain agreement, (12)[19] and (17) further down.

(12) *hie* **hæfd-on** *þa* *heora* *stemn*
      they had-PL then their term(M)[ACC.SG]
      ge-set-en-ne,   *7* *hiora* *mete*
      PREF-sit-PPTCP-M.ACC.SG and their meat(M)[ACC.SG]
      ge-not-ud-ne
      PREF-use-PPTCP-M.ACC.SG

      'they had completed their term of service and used up their
      provisions'   [894]

As noted earlier, the example in (12) further confirms that overt agreement is not incompatible with a perfect reading. Both objects are masculine, accusative and singular, and both participles indicate overt M.ACC.SG agreement. However, the term of service is already up, and neither do they have any food, so the only plausible reading is (at least partially) perfect, with bleached semantics of *have*.

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19 Even though this example contains two past participles, it is counted as one instance since the participles share the same auxiliary. This approach was adopted for all periphrastic constructions in my database, except where there were agreement discrepancies, e.g. one agreeing and one non-agreeing/zero-marked participle. Then the two participles were counted separately in each respective category. The justification for the decision to count based on the auxiliary rather than on the number of participles lies in not prejudicing the auxiliary choice (where such a choice exists), since it is not always clear that the same implied auxiliary will be repeated with every participle – see Hristov (2020: 108) for cases of apparent ellipsis of passive *weorðan* in one manuscript, where another manuscript inserts a form of *beon* in the gap.

The entry for 894 is the last entry that contains an agreeing *have*-perfect in MS. A. Interestingly, two of the four agreeing *have*-perfects in the entire manuscript contain two separate conjoined participles sharing the same form of *have* (each with its own object in (12)). This type of configuration might favour agreement on the participle, since each participle is arguably still a little more similar to a modifier that retains closer ties to its object (due to the syntactic separation/relative independence of each conjunct from the auxiliary; cf. comments on (non-)adjacency in the previous section). Notably, no such participle coordination occurs in the MS. when agreement is abandoned in the *have*-perfect. Conversely, when the perfect shows a reasonable degree of grammaticalisation in that *have* comes to be used with an intransitive verb, the auxiliary is repeated, rather than being omitted, as in the following example:

(i) *Þa* *hie* *ða* *þæt* *geweorc* *furþum* **ongunnen** **hæfdon**, *7* *þærto*
     when they then that work just begun had & thereto
     gewicod **hæfdon**
     camped had

     'When they had just begun that work and had encamped for that purpose ...' [895]

In ten transitive attestations, overt agreement was expected but was not there. This is especially noticeable in the plural:

(13) *ymb   12 monað þæs þe   hie   geweorc*
about 12 months from.that they work(NT)[ACC.SG]
ge-worh-t   *hæfd-on, Norþhymbre   7   Eastengle*
PREF-work-PPTCP had-PL   Northumbrians and East.Angles
hæfd-on *Ælf(f)rede cyninge aþ-as   **ge-seal-d***
had-PL   to.Alfred   to.king oath(M)-ACC.PL PREF-sell-PPTCP
'...twelve months after [the Danes] had built the fortress..., the Northumbrians and East Angles had given King Alfred oaths.' [894]

The concept of giving presupposes a perfective interpretation with bleaching of the possession meaning, but as noted above, this perfect reading does not have to preclude overt agreement. In (13), *geseald*, with its plural morpheme *-e* missing, coexists in the same sentence with another unmarked participle, *geworht*, whose zero-morphology is legitimate. According to the traditional hypothesis, this might have been the reason why agreement was ultimately lost. Bare forms sneaked in in contexts like this.

It is important to reiterate that agreement and lack thereof can be found in very close proximity, as in (14):

(14) *þa   wær-on hie   mid   metelieste   **ge-wæg-d-e**,*
then were-PL they with want.of.food PREF-afflict-PPTCP-M.NOM.PL
*7 hæfd-on **micl-ne**   dæl   þara*
& had-PL great-M.ACC.SG part(M)[ACC.SG] that.GEN.PL
*hors-a   **fret-en***
horse(NT)-GEN.PL eat-PPTCP
'they were oppressed by famine, and had eaten the greater part of their horses'   [894]

Again, the horses have been eaten and it is therefore inconceivable to literally have them in one's possession. The predicative participle *gewægde* in the first clause agrees with its subject, and the attributive adjectival modifier *miclne* shows M.ACC.SG agreement with *dæl*. One might have expected to find the same *-ne* on *freten* (as in (12) above). Coupled with the semantics of the sentence, the lack of agreement in (14) might thus testify to the more advanced grammaticalisation of what is already morphing into a perfect, in comparison with the predicative/periphrastic construction from the first clause, and also compared to proper adjectival modifiers like *miclne*, to which the participle used to be more similar before it ceased to agree (cf. (7) from the

earlier entries). The *-ne* ending on attributive *miclne* invites the conclusion that the agreement was lost due to the more highly grammaticalised nature of the perfect, not because people simply forgot the markers of agreement, and perhaps not because of zero-morphology or ambiguity elsewhere. This speaker/writer obviously still uses the *-ne* suffix, and also extensive plural agreement, but not so much in the (proto-)perfect.

Zero-morphology was expected for eleven *have*-perfects, as in (13). OE *geweorc* 'fortress' is neuter and no overt agreement exists for it in this syntactic context. The subject-matter of these annals presupposes that this word and this type of construction will feature prominently, and such examples are indeed frequent in my sample – three of the eleven legitimately inflectionless participles modified the noun *geweorc*. The influence of this lexeme and the entire collocation might have been felt because it was repeated often.

More of the subtleties of agreement with neuter nouns are demonstrated in (15):

(15) þa   Deniscan hæfdon hira   wif   **befæst**
     those Danes   had   their   woman(NT)[ACC.PL] secured
     'the Danes had placed their women in safety...'   [896]

ACC.NT.PL *-u* is expected only with short/light stems, but *befæst* is long/heavy due to the consonant cluster, so zero is customary for it anyway (see Table 1). In addition, the zero-plural of heavy neuter *a*-stems like *wīf* might have further reinforced zero-marking, as surmised by Mitchell (see Section 3.1). And yet, this is not all there is to it, as becomes evident from (16):

(16) *hæfd-e* **eall-e** *þa*   *geat-u*   **for-worh-t**
     had-SG   all-PL   that.ACC.PL gate(NT)-ACC.PL PREF-work-PPTCP
     '[he] had barricaded all the gates'   [901]

In (16), *eall* is also a heavy stem,[20] but it is marked for the plural with *-e*. True, this is not the standard Early West Saxon ACC.NT.PL *-u*, but it is plural nevertheless (cf. discussion of idealisation in Table 1, including the increasing generalisation of plural *-e*, which is not weight-sensitive, unlike *-u*). The heavy-stemmed *forworht*, by contrast, is not inflected (even with non-weight-sensitive *-e*), so it cannot be just the type of stem or analogy on zero-marked

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20 If the double consonant had by then been degeminated, *eall* might perhaps have been treated as a light syllable. For the development *eall > eal*, see Hogg (1992: §§7.80–7.81), including under what circumstances it normally took place (cf. Sprockel 1965: 100, 147–148). Coupled with the phonotactic environment, the double spelling <ll> probably suggests that gemination was still present, though this is far from certain.

plural nouns that matters (cf. the *-u* on *geatu* in (16), as opposed to zero-marked plural *wīf* in (15)). Things are more complex and it is not easy to say why *ealle* is inflected in (16), but *forworht* is not, since both of them contain a consonant cluster and so apocope of *-u* is expected. It is reasonable to suggest that this discrepancy in inflectional marking is not to do with the influence of expected zero-morphology, because these expectations have been overridden. It appears that *ealle* agrees in (16), despite its heavy stem, because of the type of construction it is in, i.e. it is in an attributive plural environment. If it attributively modifies a neuter singular noun, as in **eall hira land** 'all their land' [905], it remains legitimately uninflected, but this has not prevented it from agreeing in the plural, and neither has its stem type. By contrast, *forworht* in (16) might have been left (legitimately) uninflected not just due to its heavy final syllable but also due to its predicative position and/or due to the fact that grammaticalising the perfect was already underway.

The situation of *have*-perfects is similar to that of the other perfect (proto-) auxiliaries – *beon* and *weorðan*. Only one instance of (plural) agreement was recorded:

(17) *wǣr-on   þa   men   uppe... **a-gan-e***
     were-PL that.NOM.PL men(M)\NOM.PL up   PREF-gone-M.NOM.PL
     'the men... had gone up...'   [897]

Here too, agreement is more frequently missing from the perfect, as in (18).

(18) *þa   oþr-e   wǣr-on hungre   **a-cwol-en***
     that.NOM.PL other-M.NOM.PL were-PL of.hunger PREF-die-PPTCP
     'the rest had died of starvation'   [894]

Once more, it should be noted that there is agreement on quasi-attributive *ōþre*,[21] but not on the participle, as was the case with the *have*-perfect. There was another interesting *be*-perfect for which agreement was not employed:

(19) *ða   Denisc-an   scip-u   **a-set-en***
     that.NOM.PL Danish-NOM.PL ship(NT)-NOM.PL PREF-sit-PPTCP
     wǣr-on
     were-PL
     '...the Danish ships were aground'   [897]

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21 OE *ōþer* is always declined strong, even after a demonstrative (Campbell 1959: §638, Sprockel 1973: 175ff., Mitchell 1985: §508, §568). It is, strictly speaking, used (semi-)independently here, without a following noun.

As the translation indicates, the original does not necessarily convey the meaning of past in the past – it may be viewed as preterite *be* with a participial subject complement (i.e. an adjective), statically describing what could be seen at that past moment (cf. Table 7). Yet again, the attributive adjective *Deniscan* agrees (in the weak declension), but the predicative participle *aseten* does not bear NT.NOM.PL *-u*.[22] Crucially, this sentence goes on as follows:

(20) 7   *þa*   ***oðr-u***   *eall on oþr-e*
      and   that.NOM.PL   other-NT.NOM.PL   all   on   other-F.ACC.SG
      healf-e
      half(F)-ACC.SG
      'and all the others on the other side'

Here *ōðru* does receive the expected NT.NOM.PL *-u*, rare though it may be in general (cf. discussion of the behaviour of *-u* in disyllables above); *eall*, however, remains uninflected in this manuscript, receiving *-e* in MSS. B, C and D (Plummer & Earle 1892: 91, fn. 2). *Eall* may well be an adverb, as suggested by the word order.

   One perfect with *weorðan* was also attested.[23] The auxiliary in (21) is plural but the participle remains uninflected. This behaviour makes perfect *beon* and perfect *weorðan* different from their passive counterparts, though the *Chronicle* data alone is insufficient to confirm this with statistical significance (cf. Section 6 and the same participle in (19)).

(21) *þa*   ***wurd-on***   *eac swiðe uneðelice   **a-set-en***
      that.NOM.PL   became-PL   also very   awkwardly   PREF-sit-PPTCP
      'they had run aground very awkwardly'   [897]

Despite the low numbers of the passive, the agreement trends from the earlier entries are in evidence in this section too. Two *be*-passives show plural agreement. No overt agreement is expected for another two, whereas agreement

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22 Cf. Modern German, which distinguishes between attributive (declined) and predicative (non-declined) adjectives, a syntactic distinction which seems to play a key role (see Section 6, demonstrating robust inflections for both attributive and predicative adjectives in OE). The disyllabic sequence *-sete-* is equivalent to a single long stressed syllable in Old English, and so the form **asetenu* is not a viable option if the rules for high vowel deletion are to be followed. However, as noted in regard to *belocen*, the phonological rule was not always operative due to analogy and there was also the additional possibility of using non-weight-sensitive plural *-e* (as in *ealle*). That is why I treat *aseten* as a form which could potentially have been inflected (mainly for methodological reasons of consistency, as noted earlier).

23 The status of *weorðan* as a perfect auxiliary or even proto-auxiliary is contested (cf. Mitchell 1985: §739), so sentences such as (21) can alternatively be interpreted as copular constructions with an adjectival participle.

breaks down only once, with a F.SG subject in (22), where F.NOM.SG *gehalgodu* fails to show up (cf. earlier discussion of the rarity/early loss of F.SG *-u*).

(22) *heo*   *wæs*   *ær*   *to* *nunnan* ***ge-halg-od***
      she.3F.NOM.SG was[SG]   previously   to   nun   PREF-hallow-PPTCP
      'she had been consecrated a nun'   [901]

The same scenario is replicated with passive *weorðan*. The singulars (a total of five) have expected zero-marking, and the plurals (a total of three) take overt *-e*, with no loss of overt exponence. Finally, there is a category of ambiguous passives/statives (e.g. 'the fortress was broken'): five of them show overt agreement, all in the plural; zero-morphology is normal for another five, which have M/NT.SG subjects; there are also three breakdowns in agreement, all of them containing F.SG subjects (for which see the discussion beneath Table 1, as well as Section 4).

To summarise, the output of MS. A's second hand exhibits an increasing number of signs pointing to more advanced grammaticalisation of perfects, not least abandoning agreement from perfect constructions even when it might be expected, in tandem with the rest of the criteria (including clear semantic bleaching and extension of *have* to intransitive verbs). This stands in stark contrast to adjectival modifiers, where agreement is employed even when it may not be morphophonologically expected. These indisputable tendencies put the argument for the decisive role of zero-morphology on even shakier ground; crucially, they could not have been detected by automatically harvesting tokens from a large corpus which does not keep track of the overall output or semantic interpretation in context. In terms of agreement, passives in this sample remain closer to the behaviour of adjectival modifiers than that of the more highly entrenched periphrastic perfects. What is more, periphrastic passives appear to have been slowed down by competition with impersonal *mon* 'one'. Both these factors would explain why passives remain less entrenched in the grammatical system here. Compared to the previous sample, perfects evince greater grammaticalisation due to rising frequency and declining agreement (among other diagnostics such as semantic non-compositionality and extension), while passives show the opposite: stunted numerical growth and more robust agreement. As noted in the methodology section and reiterated here, these tendencies only become apparent when examining the individual scribes separately, rather than conflating the overall numbers. In the next section, I take stock of the main findings so far, which are then supported with material from a later manuscript (Section 5), before I consolidate the results for the entirety of MS. A (Section 6).

4 Interim summary and preliminary conclusions

Based on the evidence presented so far, there is a great deal of expected zero-morphology in the perfect with *habban* and *beon*, as well as in *beon-* and *weorðan*-passives. While this may appear to have led to an almost complete loss of agreement in all types of perfect, including in the plural, this is not the case in the passive. Both types of passive, with *beon* and *weorðan*, demonstrate zero-morphology in the singular (legitimately with the masculine/neuter, but not the feminine), whereas *-e* appears consistently in the plural.[24] The same is confirmed by the ambiguous statives. Although *-u* can be apocopated in certain phonologically specified disyllables, namely two consecutive light syllables, *u*-deletion seems to have affected the NOM.F.SG much more than the NOM.NT.PL.[25] Agreement in the NOM.F.SG might have been lost because of analogical pressure from the masculine and neuter, but no such loss occurs in the plural. A crucial difference in the make-up of the strong adjectival paradigm is that zero is predominant in the NOM.SG – only light/short feminine stems could take non-zero marking. By contrast, zero is legitimate (in 'standard' West Saxon) only with neuters in the ACC.SG, and usually with heavy neuters in the NOM/ACC.PL (see Table 1).

In a single sentence, agreement is often present in non-perfect constructions (adjectival or passive/stative) where it is absent from the perfect. The passive also had a great deal of legitimate zero-morphology, but overt agreement is much more robust there, particularly in the plural. Because of those disparities in agreement behaviour, it is conceivable that the passive was not being grammaticalised to the same extent as the perfect. On this view, more advanced loss of agreement is a consequence, and hence indicative, of more advanced grammaticalisation.[26] The gradual diachronic process of grammat-

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24 Cf. Hogg & Fulk (2011: §4.17, §4.43) for more on this general inter-textual tendency.

25 Hogg & Fulk (2011: §3.102) make similar observations about disyllabic nouns: 'It is […] instructive to note that in the fem. nouns there is no failure to apocopate final *-u* of the nom.sg., whereas in the *as*-declension neuter nouns the failure to apocopate final *-u* of the nom.pl. is regular. This speaks for the loss of apocope as a phonological rule in L[ate] W[est] S[axon]'. Despite having good reason not to do so, even if I treated apocope of *-u* after two light syllables as a legitimately expected instance of zero-exponence, the way I treat deletion following a heavy syllable, this would not greatly alter my conclusions; if anything, it would strengthen my case, especially as far as passives are concerned.

26 Essentially, the rise of periphrastic constructions appears to be signalled by their rising text frequency and more accelerated loss of adjectival agreement on the participle, as noted above (on the role of frequency in grammaticalisation, see Bybee 2003; cf. Petre 2014: esp. Chapter 3, Jones & Macleod 2018, both providing additional evidence in favour of insufficient grammaticalisation of OE passives, including their high degree of semantic compositionality). Another independent indicator of further grammaticalisation of *have*-perfects is their extension to intransitive verbs (recorded in Table 4).

icalising the perfect and passive schemas (both instances of a more abstract verbal periphrastic schema: $V_{AUX} + V_{MAIN}$) has resulted in synchronic gradience regarding the extent of entrenchment of the two schemas in the OE slice in time (see Traugott & Trousdale 2010, 2013).

There is no evidence that the ultimate grammaticalisation of these constructions and the gradual decline of agreement which accompanied it were influenced by legitimate zero-morphology. It is more likely that overt marking was first lost in the *have*-perfect because marking in the accusative might be expected to deteriorate before marking in the arguably more basic nominative (see further below). *Be*-perfects might have been influenced by *have*-perfects, but they lag slightly behind and do retain one agreeing nominative plural, placing them somewhere between *have*-perfects and passives (though certainly gravitating to the former). This ties in with the statistics confirming the larger number of declined participles in *be*-perfects (Section 1), as well as the idea of a network of interlinked constructions (for which see Petre 2014). The gradience stands out even more clearly when ambiguous *be*-perfects/passives/statives are taken into account (e.g. 'the army was gathered'), this time patterning with passives and copulars (see Table 4). Interestingly, the sole *weorðan*-perfect has likewise shed the plural declension on the participle, but not the passives with the same auxiliary. Passives, which are often ambiguously stative and therefore closer to genuine copulars, preserve agreement longest.[27]

Constructions with *beon* and *weorðan* were still seen as closer to adjectival/copular structures, mainly due to their inherent ambivalence involving statal or dynamic interpretations, as well as their largely compositional semantics – hence their lesser extent of grammaticalisation and greater amount of agreement. In both copulars and proto-passives, the subject and the (original) subject complement are linked by an overt copula, indicating the relationship between them, whereas the link between an object and an object complement (as in the proto-*have*-perfect) is not overtly expressed, making it easier to reanalyse the object complement as a non-agreeing verbal element (cf. *I had him bound* vs. *He was bound (by me)*). Admittedly, this scenario is also based on marking (instantiated in the overt/covert copula rather than overt/covert morphological exponence), but this type of marking is much more ubiquitous and with arguably more far-reaching consequences for reanalysis than non-explicit agreement morphology in certain slots of the paradigm.

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27 By contrast, the data above did not demonstrate a correlation between a stative/possessive vs. verbal/aspectual meaning of *have* and the presence or absence of agreement (see (7), (8), (12), (13)).

An anonymous reviewer finds it equally plausible to argue that passives could more easily lose their marking, because the relationship with the subject has already been made explicit by the copula (hence German and Dutch today do not show adjectival agreement in predicative position). It all hinges on whether speakers find the overt copula sufficient to flag up the subject complement as such and hence eliminate the redundant adjectival agreement on it, or, as is argued here, whether speakers stop perceiving (and morphologically signalling) the connection between an object and an object complement due to the lack of explicit syntactic linkage between them. Old English speakers appear to have gone down the latter route, preserving morphological agreement where there is syntactic and semantic linkage between the relevant constituents and abandoning agreement where no such connections are made. Crucially, the participle in the *have*-perfect stops being perceived as modifying the object and comes to be semantically associated with the subject (i.e. from 'I have him in a bound state' to 'I have done the binding'), whereas the participle in *be*-perfects and passives undergoes no comparable semantic switchover and remains associated with the subject. In Bulgarian/Macedonian, agreement is indeed much more easily lost in the newer layer of *have*-perfects than in the earlier layer of *be*-perfects, with no analogous cases of zero-morphology in either (see Hristov 2020: Chapters 7 and 8).

Thus, zero-morphology and its impact appear to have been overrated and there are other plausible reconstructions of how things may have proceeded. In the next section, I seek to corroborate my findings with material from the later *Peterborough Chronicle* (MS. E), before consolidating the results for the entirety of MS. A in Section 6.

5   Comparison to the Peterborough Chronicle (991–1012)

In this section, I examine a sequence of later annals in order to test my hypotheses against more data. This extract comes from MS. E/*ChronE*, the so-called *Peterborough Chronicle*, and covers the entries for 991 through 1012, approximately 3,640 words (cf. Irvine 2004, Macleod 2012: 75, for textual background). The evidence from MS. E is intended to establish if the agreement system outlined above works as expected at a later date and in a text produced in a different geographical location. Jones & Macleod (2018: 72) point out that *ChronE*'s annals from 966 to 1121 represent the Old English portion of the text unique to this manuscript, making this one of the few available sources of Old English data from the 11th and 12th centuries (cf. Bately 1986:

	with agreement	no agreement	zero-morphology expected	total
Have-perfects (transitive)	1 (F.SG)	4 (M/F.SG, PL)	1 (genderless OBJ)	**6**
Have-perfects (intransitive)	0	0	1 (no OBJ)	**1**
Beon-/ weorðan-perfects (intransitive)	0	0	0	**0**
Passives with *beon*	2 (PL)	1 (F.SG)	13 (M/NT.SG, clausal SUBJ)	**16**
Passives with *weorðan*	1 (PL)	1 (F.SG)	3 (M.SG)	**5**
Ambiguous passives/statives with *beon*	1 (PL)	0	3 (M/NT.SG)	**4**
Ambiguous passive/copular clauses with *weorðan*	0	0	1 (M.SG)	**1**
Ambiguous *be*-perfects/ passives/statives	0	2 (F.SG)	3 (M.SG)	**5**

Table 5   Perfects and passives in Manuscript E of the *Anglo-Saxon Chronicle* (991–1012)

xci fn.272, xciii, Irvine 2004: xviii–xxiii).[28] After investigating MS. E's entries for 991–1012, I return to MS. A, examining it in its entirety below.

One problem with taking data for the period 991–1012 from a version of the *Chronicle* that was copied in 1121/1122 is that it is difficult to say to what extent the language reflects that of the exemplar or that of the copying scribe. Nevertheless, both the late date of composition and the even later date of copying are immediately evident. By now, the morphological system of Old English is undergoing massive transformations due to the pervasive influence

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28 Although it would undoubtedly be interesting to trace how things develop in the Peterborough interpolations and the continuations, these reflect the transition from Old to Middle English and are therefore left for future research.

of sound change. Unstressed endings are often mixed up, with confusion of *-on/-an/-en/-um*, among others (see Campbell 1959: §§377–379, Hogg 1992: §6.46ff., §6.59ff., §7.102, Irvine 2004: cxxiv, cxxxix ff.; cf. remarks about idealisation in Table 1). Crucially for the purposes of the current paper, even against this backdrop of cataclysmic metamorphosis, agreement still works as it did in the previous centuries. The same contrast emerges again between the behaviour of the perfect and the passive, as highlighted in Table 5.

Table 5 confirms that agreement is more or less completely missing from the perfect, but it still holds its ground (in the plural) in passives, including potentially stative ones. Only one transitive *have*-perfect retains agreement and it is noteworthy that the controller is F.SG:

(23) *hi*   *hæfd-on*   *þa*   *burh*   **eall-e**
      they   had-PL   that.F.ACC.SG   borough(F)[ACC.SG]   all-F.ACC.SG?/ADV?
      a-sme-ad-e
      PREF-ransack-PPTCP-F.ACC.SG
      'they had then ransacked the whole borough'   [1011]

The overt F.ACC.SG agreement on *asmeade* might be unexpected, considering the late date of this text. Perhaps *-e* was somehow still felt to be a more distinctive ending, and *ealle* might suggest adjectival status for the participle too, which arguably increases the likelihood of agreement. *Ealle* could be an adjective or an adverb (cf. (20) above, as well as Bosworth & Toller's dictionary entry at https://bosworthtoller.com/8380, or that of the Dictionary of Old English, https://tapor.library.utoronto.ca/doe/, both accessed on 31 March 2022). In addition, *burh* is a zero-marked F.SG noun, but there is *-e* on the participle, so any purported analogy on zero-marked nouns has failed to operate here (cf. earlier discussion, and the opposite scenario in (24) – *-e* on the noun and zero on the participle).[29]

The partially conservative character of this portion of the manuscript might have to do with the fact that this kind of language was transmitted as a learned written register reproducing earlier exemplars rather than being a pure reflection of the spoken language. Or rather, the two were most likely mixed – the

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29 An anonymous referee suspects that the *-e* on *asmeade* might alternatively be a plural marker in agreement with the subject, reflecting the reanalysis whereby the participle comes to be semantically matched with the subject (it's 'they' that do the ransacking), rather than the object. This reassignment could then have precipitated the loss of agreement. Though this possibility of realigning agreement with the subject should not be dismissed out-of-hand without proper empirical investigation, it is rather unlikely (cf. (24)). In a similar fashion, an alternative, though admittedly less plausible, interpretation whereby *ealle* could be seen as showing subject agreement is to read (23) as 'they had all then ransacked the borough'.

older written documents serving as conservative bookish models and the actual spoken language at the time (see Irvine 2004, for textual transmission). We know that there was standardisation of West Saxon, including regularisation of inflection (see Gneuss 1972, Hofstetter 1988). Irvine (2004) notes that MS. E contains a wide spectrum of linguistic forms, including the mainly standard Late West Saxon of the annals up to 1121 which were copied from earlier versions of the *Chronicle*. As far as drawing conclusions based on this material is concerned, the inevitable risk is that agreement might be preserved in a standard literary variety, including this and the previous textual samples, to a higher degree than it is preserved in speech. Still, the consistency in agreement patterns for the perfect and the passive visible from Table 5 is striking nonetheless, even more so against the background of general confusion in MS. E mentioned above, confusion that is clearly discernible and goes against standardisation that would entail a more normative use of forms (cf. (30) below).

As before, cases in which agreement has been abandoned from the perfect predominate – four of the six transitive *have*-perfects are not inflected where they could have been. In (24), F.ACC.SG *-e* is missing from the predicative participle *gemarcod*, but it is present on attributive *ælce*, perhaps suggesting that, unlike *ælce* (and maybe *asmeade* above), *gemarcod* was not felt to be a modifier related to the direct object to the same extent.

(24) *hi   hæfd-on **ælc-e**   scir-e   on West Sexum*
     they had-PL   each-F.ACC.SG shire(F)-ACC.SG on West Saxons
     *stiðe   **ge-marc-od**...*
     cruelly PREF-mark-PPTCP

     '...they had cruelly left their mark on every shire of Wessex...' [1006]

As noted earlier, such an impression is independently confirmed by the modifier *ealle* in (23). This modifier weighs in favour of regarding *asmeade* as more adjectival, since *ealle* might be taken to (sub-)modify *asmeade*, producing the sense 'entirely/completely ransacked' (though the translation in (23) suggests that *ealle* combines with the word for 'borough' instead). Alternatively, *ealle* could be an adjective which post-modifies 'borough' (in line with the Modern English translation), and therefore agrees with it, prompting the adjacent *asmeade* to do the same. By contrast, a more dynamic adverb of manner ('cruelly') occurs with *gemarcod* in (24), arguably favouring a more dynamic verbal interpretation for the participle (as opposed to a stative adjectival one). These sentences thus demonstrate consistent deployment of inflection (*-e*) on genuine modifiers (*ealle*, *ælce*), or where the participle is potentially felt to be

more of an adjectival modifier than anything else (*asmeade*);[30] by contrast, if the participle is seen as more verbal and less of a modifier (arguably the case of *gemarcod*), agreement is dropped, and this does not seem to be linked to the influence of expected zero-morphology or to the scribe/author not using agreement elsewhere. This hypothesis receives support from the masculine:

(25)   ... *þone*   *Frencisc-an*   *ceorl*   *Hugon* *þe*
       that.M.ACC.SG French-M.ACC.SG churl(M)[ACC.SG] Hugh that

       seo   *hlefdige* *heafd-e* *hire* **ge-set-t**   *to* *gerefan*
       that lady   had-SG her PREF-set-PPTCP to reeve

       '...the French churl Hugh, whom the queen had appointed as her reeve'   [1003]

The antecedent of the invariable relativiser *þe* is the churl Hugh, so *gesett* could legitimately have hosted M.ACC.SG *-ne*. By contrast, genuinely adjectival object complements do agree:

(26) *þa*   *gebræd* *he*   *hine*   **seoc-ne**
      then feigned he.3M.NOM.SG him.3M.ACC.SG sick-M.ACC.SG

      'he feigned him[self] sick', i.e. 'he pretended to be sick'   [1003]

(27) *þæt* *he*   *Wulfnoð*   **cucon-ne**   *oððe*
      that he.3M.NOM.SG W.(M)[ACC.SG] quick-M.ACC.SG or

      dead-ne   *begytan* *sceolde*
      dead-M.ACC.SG get   should

      '...to capture Wulfnoth alive or dead'   [1009]

Based on this material, it may be concluded that the scribe/author avoids agreement markers in the perfect because he does not feel that those participles modify the object, not because he has forgotten the appropriate morphemes. Due to the closer syntactic parallelism, adjectival object complements like the ones in (26) and (27) are far better comparanda for participles in periphrastic perfects than attributive adjectives and will therefore receive

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30 For more on the relationship between participles and adjectives, see Gisborne (2022). Wischer (2004: 245) argues that adjectival inflections on participles are simply meaningless residues from an earlier stage of the language, but the examples she provides do seem to be accompanied by similar modifiers which can arguably induce a more adjectival interpretation, e.g. *ealle* 'all' or *clæne* 'fully, entirely'. At the same time, Wischer (2004: 246) has an example with uninflected prefixed and adjectival *ungebet* 'unatoned for' (notably in object complement function alongside an agreeing attributive modifier), but she offers no statistics on the occurrence of those forms.

more attention in Section 6 (see Corbett 2022 for a typological take on different targets and controllers).

Once more, the most striking departure from the situation in the passive is that perfects do not host plural agreement in this sample either (but cf. Kilpiö 2007 for further discussion of textual variation). In (28), the object is plural but the participle has no overt ACC.PL -*e*.

(28) *heafd-e se cyng hi* **fore-be-gan**
had-SG that king them.3ACC.PL PREF-PREF-gone
'the king had intercepted them' [1009]

Zero-morphology is legitimate for only one transitive *have*-perfect. Though legitimate zero-morphology is widespread in passives, plural agreement is still healthy there, so the loss of plural exponence in the perfect cannot be attributed to any influence coming from this lone instance of expected lack of marking.

As before, passives show robust agreement in the plural and zero in the singular. (29) demonstrates that zero-morphology (legitimate on *gelest*) and overt agreement can coexist side by side, with overt marking surviving as late as the entry for 1012, unaffected by any supposed analogy on zero-inflected forms.

(29) *Ða þet gafol* **ge-les-t**
when that.NT.NOM.SG tribute(NT)[NOM.SG] PREF-pay-PPTCP
wæs. 7 þa frið að-as
was[SG] and that.NOM.PL peace oath(M)-NOM.PL
ge-swor-en-e
PREF-swear-PPTCP-M.NOM.PL
'When that tribute was paid and the oaths of peace [were] sworn'
[1012]

It should be reiterated that, in the passive, agreement again only disappears in the feminine singular, never in the plural. F.NOM.SG -*u* might be expected for (30), despite the disyllabic stems (as per the discussion above).

(30) *Her... wæs Bæbbanburh* **to-broc-on** *7*
here was[SG] Bamburgh(F)[NOM.SG] PREF-break-PPTCP and
mycel *herehuðe þær* **ge-num-en**
much booty(F)[NOM.SG] there PREF-take-PPTCP
'In this year Bamburgh was sacked and much booty was captured there' [993]

Tobrocon showcases the confusion of *-on* (normally preterite plural) and *-en* (strong past participle) characteristic of late OE. Interestingly, this time there is no overt agreement on attributive *mycel* either (cf. Section 6 for *u*-deletion in such disyllables), though overt morphology resurfaces later in the entry: *mycel-e fyrd-e* 'large-F.ACC.SG army(F)-ACC.SG'.

The same situation is replicated with *weorðan*-passives and ambiguous passives/statives(/perfects): overt participial agreement in the plural, agreement missing when the subject is F.SG, with zero anyway for M/NT.SG subjects (see Table 5). I therefore conclude that the agreement system which operated in the previous annals is still intact at this late date, oblivious to any influence coming from legitimate zero-marking or other large-scale changes in the morphology of late Old English. The tendencies and the divergent agreement behaviour of perfects and passives that we witnessed earlier are still indisputable despite clear signs of seismic shifts in the morphosyntax of late Old English. As before, adopting a close-reading philological approach additionally uncovered some contextual clues (in the form of adverbial modifiers) as to why some participles remain closer to agreeing adjectives while others are perceived as more verbal and hence fail to agree. With this confirmation of the earlier findings, we are now in a position to consolidate the results for the entirety of MS. A, further comparing the findings to other aspects of the grammar of this extensive document.

6 Discussion and consolidation of results for the entirety of MS. A

I now seek confirmation of my hypotheses by systematically examining the morphological marking of attributive and predicative adjectives and participles, in contrast to those in (proto-)passives and (proto-)perfects, for the entirety of MS. A. Table 6 gives the overall picture for the whole timespan of MS. A, consolidating the results above (though the numbers should be seen as approximate, particularly in the case of the more numerous adjectival constructions; consult the Appendix for the complete dataset).

The overwhelming majority of attributive adjectival targets show consistent agreement or expected zero-exponence. There are only 7 (0.9%) breakdowns with F.SG adjectives, or due to confusion of numerals (e.g. M *twegen* vs. NT/F *tu/twa*) or of the demonstratives *þys* and *þis* in late OE (e.g. in the annal for 978). In general, numerals and some demonstratives might work differently from other attributive targets, so they merit further investigation and should not be counted here at all (cf. Sprockel 1965: Chapters 8 and 9). Note, for instance, that both the demonstratives and the numerals above are inflected by internally modifying the stem rather than taking affixes, not to

	Construction	With agreement (n/%)	No agreement (n/%)	Zero-morphology expected (n/%)
ADJECTIVAL	Attributive adjectives (including quantifiers)[a]	**628/78.4%** (various)	**7/0.9%** (mostly F.SG)[b]	**166/20.7%** (M/NT.SG, F/NT heavy stems, genderless numeral as controller)
	Attributive past participles	**13/72.2%** (M/NT.SG strong/weak declension, incl. oblique cases, PL)	**0/0%**	**5/27.8%** (M/NT.SG)
	Predicative adjectives with *beon*	**13/54.2%** (PL, M.SG comparatives)	**1/4.2%** (F.SG)	**10/41.7%** (M/NT.SG)
	Predicative adjectives with *weorðan*	**4/80%** (PL)	**0/0%**	**1/20%** (M.SG)
	'Subject complements' (predicative adjectives/ participles) with verbs other than *beon*/*weorðan*	**7/63.6%** (PL)	**0/0%**	**4/36.4%** (M.SG)
	Predicative adjectives with *habban*	**1?/100%** (M/SG quantifier *nanne*, perhaps elliptical and attributive)	**0/0%**	**0/0%**
	Object complements (predicative adjectives/ participles) with verbs other than *habban*	**4/80%** (3 M.ACC.SG, 1 PL)	**1/20%** (M.ACC.SG)	**0/0%**
PASSIVE	Predicative participles with passive(-like)[c] *beon*	**25/20.3%** (PL)	**17/13.8%** (F.SG)	**81/65.9%** (M/NT.SG)
	Predicative participles with passive(-like) *weorðan*	**14/30.4%** (PL)[d]	**3/6.5%** (1 F.SG, 2? PL)	**29/63.1%** (M/NT.SG, genderless quantifier as controller)
PERFECT	Predicative participles with perfect(-like) *beon*	**2/8.7%** (PL)	**4/17.4%** (1 F.SG, 3 PL)	**17/73.9%** (M/NT.SG, genderless numeral as controller)
	Predicative participles with perfect(-like) *weorðan*	**0/0%**	**1/50%** (PL)	**1/50%** (M.SG, ambiguously passive)
	Predicative participles with perfect(-like)[e] *habban*	**4/12.9%** (M.SG)	**13/41.9%** (2 M.SG, 3 F.SG, 8 PL)	**14/45.2%** (NT.SG, heavy NT.PL, no ACC object, clausal object)

Table 6 Agreement in MS. A of the *Anglo-Saxon Chronicle*

^a Quantifiers such as *eall* 'all', *monig* 'many', are mostly morphologically identical to other adjectives, and hence included here (following Hogg & Fulk 2011: §4.1; cf. Sprockel 1973: 176ff.).

^b Most of these feminine singulars are disyllables like *micel* 'great, much, large', where apocope of -*u* after two short/light syllables might be phonologically expected, as noted above, barring complications arising from potential syncope and analogical change. In any case, F.SG/NT.PL *micelu* is possible and attested, hence my treatment of the apocopated version as a breakdown in overt agreement: *micelu/micclu* appears in Psalter glosses, e.g. Lat. *mirabilia magna* ∼ OE *wundur micelu* 'great wonders' (overtly plural adjective and a zero-marked plural noun; see Stevenson 1847: 134, Dresher 1985: 117, Pulsiano 2001: 485–486). Ignoring dialectal differences, 'phonologically legitimate' *micel* occurs four times in the Vespasian Psalter (Mercian, rather than West Saxon, in dialect), alongside eight attestations of 'phonologically unexpected' *micelu* (Dresher 2001: 19, cf. Fulk 2010: 135–136, Hogg & Fulk 2011: §3.68n1). *Micelu* 'size' is also listed as a feminine noun in Bosworth & Toller's dictionary http://www.bosworthtoller.com/055368 (accessed on 27.01.2020), confirming the (morphological) permissibility of this unapocopated sequence (irrespective of whether it marks F.SG or NT.PL). Nevertheless, even if I treated disyllables like *micel* as instances of legitimate zero exponence in my Early and Late West Saxon data, the statistics would hardly be affected, if anything boosting my argument.

^c This category also includes participles modified by adverbs like *swiþe* 'very' or the prefix *sam-* 'semi, half', thereby conflating the more verbal with the more stative instances of the *be* + past participle construction (see Table 7 below).

^d A couple of the examples assigned to this category might be borderline cases, e.g. *7 þær **wearð** þara Denescra micle ma **ofslegenra***, lit. 'and there became.SG [of] those Danes much more [of] slain [ones]' [1001], where the participle is inflected for the genitive plural potentially governed by the quantifier *ma*, so *wearð* might be an ordinary lexical verb here (see Sprockel 1973: 208, Hristov 2020: 107). Even if the current category assignment is challenged and such examples are discarded or reclassified, the figures and general points will not be greatly affected (cf. Sprockel's (1973: 207) similar total for *weorðan*-passives – 43).

^e This category also includes participles modified by adverbs like *forswiðe* 'very much' (cf. Table 7 regarding the semantic interpretation).

Table 6 cont.: Notes to Table 6

mention their typical determiner roles (as opposed to being merely modifiers of the adjectival type). Excluding these 'aberrant' numerals and demonstratives would bring the number of failures of agreement further down, but even if they are retained in the count, the percentage of failure of agreement in this category remains negligible. Apart from including strictly pre-modifying participles, the category of attributive past participles was loosely taken to include a few post-modifying or independently used participles too (e.g. in a dative absolute construction) – due to the word order in the poetic *Battle of Brunanburh* [937] or the entry for 975, for instance, it wasn't always clear whether to treat them as attributive or predicative modifiers; importantly, they all pattern just like the adjectives, exhibiting robust agreement. The same holds for predicative adjectives or participles with copular verbs (e.g. 'were English', 'became Christian', 'lay dead/slain', 'came/arrived wounded') or with passive(-like) *beon* and *weorðan* – overt agreement can be lost in the F.SG, but normally not in the plural. The only exception was example (11) above, as well as another unclear case that might have been plural (from annal 893, which might involve a scribal error – see Bately 1986: xc, 58; cf. Sprockel 1973: 208–209). Thus, in terms of agreement, attributive and predicative adjectives and participles do not behave very differently from those in proto-passive constructions.

However, the behaviour of all three perfects (with *beon/weorðan/habban*) is clearly different, demonstrating advanced loss of overt exponence in the plural, with *beon-* and *weorðan*-perfects arguably intermediate between the less grammaticalised copular and passive(-like) constructions and the most highly grammaticalised *have*-perfect. Judging by the data, perhaps the agreement in the *have*-perfect was lost more quickly because patterns with *have* + adjectival (as opposed to participial) object complement were vanishingly rare – hardly any are present in this MS. (cf. the other potential reasons adduced in Section 4). There are just 5 instances of participial and adjectival object complements with verbs other than *have*, as in (31) and (32), both of which have agreement irrespective of the relative position of the object and its modifying complement (cf. remarks on word order in earlier sections).

(31) **ge-bund-en-ne**   **hine**   on Mierce lęddon
PREF-bind-PPTCP-M.ACC.SG him.3M.ACC.SG on Mercia led
'[they] led him bound to Mercia'   [796]

(32) *7   hie   him* **all-e gehiersum-e** *dydon*
and they him   all-PL submissive-PL did
'and they made (them) all submissive to him'   [853]

40

Four of the five object complements show the expected agreement, with only one failure to agree, as in (33).

(33) *7   his sunu forlet / on wælstowe   wundun*
     and his son   left   on battlefield with.wounds
     fergrund-en,   / giung-ne   æt guðe
     bring.low-PPTCP   young-M.ACC.SG at battle
     'and [he] left his young son on the field of slaughter, brought low by wounds in the battle'   [937]

As observed in the excerpt from the *Peterborough Chronicle* (see (25)–(27) above), M.ACC.SG agreement in this poetic passage also fails on the participle but is preserved on the adjective. The adjective in (33) is a more permanent characteristic of the son in question (and might not even be an object complement here, if ellipsis of a following implied head is assumed). The adjective is arguably felt to characterise the object noun ('son') much more directly than the participle, hence it agrees. This confirms the impression that, even in neighbouring targets, agreement is or isn't deployed based on whether the potential target is seen as sufficiently adjectival (rather than verbal) and sufficiently relatable to the controller (here, the object). Compared to subject complements, some object complements do appear to have a looser link to the object, making them more likely to default on agreement (cf. Section 4).

This assertion receives support from another area of the grammar of the *Parker Chronicle*. An interesting parallel can be drawn to the morphological treatment of Latin names in the vernacular portions of MS. A. Subjects (a total of 68) and subject complements (only two) invariably terminate in the masculine nominative Latin ending –*us*, as in (34).

(34) *Her se eadiga **Petrus** apostol gesæt biscepsetl in Antiochia.*
     'In this year the blessed Apostle Peter occupied the see of the city of Antioch.'   [35]

There are ten direct objects which end in the Latin accusative –*um* (masculine) or –*am* (feminine), as in (35)–(36), with only two defaults of objects ending in masculine nominative –*us*. One of them is shown in (37) and it is noteworthy that this is a quasi-passive construction with impersonal *mon* 'one' and also with a PP approximating an object complement (the other case involves the name of an island).

(35) *se   þe   Iacobum ofslog*
     that that James   killed
     'the one who killed James'   [45]

(36) *Philippus 7 Herodes todældun* **Lyssiam 7 Iudeam** …
'Philip and Herod divided Lycia and Judea'　　　　　[12]

(37) *Her* **Þeodorius** *mon hadode*　*to ercebiscep.*
here Theodore　one　consecrated　to　archbishop
'In this year Theodore was consecrated as archbishop.'　[668]

Interestingly, however, all three Latin-derived nouns in object complement function in this MS. appear in the default nominative, rather than the morphologically expected accusative, which would match the object status of the nouns or pronouns they are coreferential with.[31]

(38) *se*　*papa*　*hine heht*　**Petrus**
the pope　him called　Peter
'…and the pope called him Peter.'　　　　　　　[688]

(39) *æteowde*　*se*　*steorra þe*　*mon on boclæden*　*hæt* **cometa**
appeared the　star　that one on book.Latin calls cometa
'there appeared the star which is called in Latin *cometa*'　[891/892]
[not accusative *cometam*]

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31 Cf. Bauch (1912: 74–75) for analogous poetic examples with native and non-native nouns alike, so such 'incongruence' appears to be rather frequent with verbs of naming/calling; Kotzor (1981: 60) furnishes a similar example from the body of Martyrology texts. This tendency is confirmed by the Dictionary of Old English entry for *hatan* (I.A.1), defined as 'to name, call (someone, something) a proper name (nom., **occasionally acc.**)' [emphasis mine]; DOE provides the following example of an OE nominative object complement alongside the Latin original with canonical accusative marking:

(i) *ðin wif Sarai, ne hat ðu hi heononforð Sarai, ac hat hi*
thy wife Sarai not call thou her henceforth Sarai but call her
Sarr-a　[Old English]
Sarra-NOM

Sarai uxorem tuam non vocabis Sarai sed **Sarr-am**　[Latin]
Sarai wife thy not call Sarai but Sarra-ACC
'As for Sarai thy wife, thou shalt not call her name Sarai, but Sarah shall her name be'　[*King James Bible*, Genesis 17:15]

One of the rare instances of an inflected accusative object complement from the Dictionary of Old English is supplied in (ii); the first conjunct is declined according to the OE weak *n*-declension, and the second according to the pattern of Latin first-declension *a*-stems:

(ii) *þæt lond mon hætt þa ealdan* **Sciþþi-an** *&* **Ircani-am**
that land one calls the old Scythia-ACC and Ircania-ACC
'One calls that land old Scythia and Ircania'

Modern German retains this pattern with cognate *heißen* 'call', employing an overtly accusative object and an accusative object complement: *Er heißt* [*mich*]$_{Obj:Acc}$ [*einen Idioten*]$_{ObjComp:Acc}$ 'He calls me an idiot'.

In (38), the noun in object complement function is clearly nominative (Lat. –*us*) rather than accusative (–*um*), so it fails to agree with the object pronoun, thus suggesting a looser link between them (see Sprockel 1973: 128). Admittedly, it must be taken into consideration that *Petrus* is a personal name, and also a borrowed one, and both these factors might favour a single fossilised form, as would the verb for 'call'.[32]

Nevertheless, as demonstrated above, Latin names can and do get their classical inflections in OE texts (there are also five examples of indirect or prepositional objects in MS. A with the appropriate Latin second-declension dative –*o*). Based on this independent evidence, it seems that agreement in the *have*-perfect was lost more quickly because purely adjectival object complements are rarer (so the adjectival model is not so strong) and also because there is an inherently looser link between the object and its complement (compared to subject complements).

Finally, three tiers emerge upon examining the percentages in Table 6, in line with my claim about the gradience of periphrastic schemas: attributive and copular adjectival and participial constructions in which unambiguous agreement predominates (ranging from 54.2% to 80%); passive(-like) constructions with overt agreement ranging between 20.3% and 30.4%; perfect(-like) constructions with overt agreement marking in the range of 0%–12.9% (cf. the figures cited in Section 1). An analogous cline emerges when examining loss of overt agreement: attributive adjectives (0.9%), predicative adjectives with *beon* (4.2%), *weorðan*-passives (6.5%), *beon*-passives (13.8%), *beon*-perfects (17.4%), *habban*-perfects (41.9%). It remains for future research to probe if and to what extent these tendencies hold true of the other MSS., including the *Peterborough Continuations*, as well as of OE in general (cf. somewhat similar observations made in Hogg & Fulk 2011: §4.17n.2). Bauch (1912: 66ff.) observes the same differentiation in the corpus of OE poetry between predicative adjectives, which are usually inflected, and predicative past participles, including those in (proto-)passive and (proto-)perfect constructions,

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32 A similar contrast unrelated to verbs for naming and calling turns up in the following poetic examples from *Juliana* cited in Bauch (1912: 10–11). While the native adjective in (i) gets the expected accusative inflection, the Latin-derived names in (ii) appear in the default nominative form, although both are in apposition to an object noun.

(i)	*Swa*	*ic*	*þe*	**bilwit-ne**	*biddan*	*wille*	
	so	I	thee	gentle-M.ACC.SG	to.bid	want	
	'So I wish to ask you, gentle [Lord],...'						[*Juliana*, 278]

(ii)	*þæt*	*he*	*acwellan*	*het*	*Cristes*	*þegnas,*	**Petrus**	*ond*	**Paulus**
	that	he	to.kill	ordered	Christ's	thanes	Peter	and	Paul
	'... that he ordered Christ's servants, Peter and Paul, to be killed'								[*Juliana*, 303]

which often remain uninflected, especially in the older poetic texts; predicative participles with verbs other than *be/become*, on the other hand, tend to be inflected (like the adjectives). In the same fashion, adjectival object complements in Bauch's (1912: 75ff.) poetic corpus rarely fail to agree; participial object complements also tend to preserve agreement in clauses with verbs of perception but frequently fail to agree in combination with *have*. Using other criteria, Jones & Macleod (2018) likewise note the weak grammaticalisation of OE passives. The agreement data here corroborate that the passive (with loss of agreement at 13.8% in the case of *beon*) has only just begun to be differentiated from copular structures (with 4.2% loss of agreement in copular clauses with *beon*), but there is already a perceptible gap between the numbers for the two constructions.

In this respect, the contribution of the present paper consists in substantiating these claims of weaker grammaticalisation of passives by showing the exact numerical extent of the gradience, compared to adjectives and different types of perfects – to the best of my knowledge, this has not been demonstrated before. Moreover, this gradience is computed on the basis of the output of several scribes/copyists in a single coherent collection, as opposed to a large corpus conglomeration of disparate sources; this has the advantage of allowing us to make claims about the validity of this gradience in the actual grammars of those language users based on their output and consistent choices throughout the text.

Independent confirmation for the relative rates of grammaticalisation of perfects and passives comes from their semantic compositionality and the expression of stative (rather than dynamic verbal) meanings (see Johannsen 2016, Jones & Macleod 2018, as well as the introductory discussion and some of the remarks to this effect made in passing above). Johannsen (2016) demonstrates that 92.51% of the combinations of present-tense *have* + past participle in the *York-Toronto-Helsinki Parsed Corpus of Old English Prose* possess an unambiguous perfect meaning, while only 5.29% of [*hæbb-* + past participle] were judged as ambiguous between an attained state and a perfect reading, with just an infinitesimal 0.25% unambiguously denoting an attained state. Jones & Macleod (2018), on the other hand, remark on the compositionality of Old English passives, i.e. the derivability of their overall meaning from the meanings of their component parts (making them weakly grammaticalised). McFadden & Alexiadou (2010), in turn, highlight the compositionally stative and resultative nature of *be*-perfects, which, according to them, made *be*-perfects underdeveloped compared to periphrases with *have*.

In the material from the *Chronicle*, I estimated the following rough distributions of the semantic interpretations of the different constructions as verbal

	verbal/ dynamic (N/%)	adjectival/ stative (N/%)	ambiguously stative or dynamic (N/%)
Predicative participles with passive(-like) *beon*	**66/53.7%**	**29/23.6%**	**28/22.8%**
Predicative participles with passive(-like) *weorðan*	**37/80.4%**	**2/4.4%**	**7/15.2%**
Predicative participles with perfect(-like) *beon*	**18/78.3%**	**0/0%**	**5/21.7%**
Predicative participles with perfect(-like) *habban*	**23/74.2%**	**0/0%**	**8/25.8%**

Table 7   Semantic interpretation of periphrastic constructions in MS. A of the *Anglo-Saxon Chronicle* (tentative and approximate values)

and dynamic, stative and adjectival or ambiguous between the two (irrespective of word order, inflection on the participle, etc.). These values are tentative since there is a great deal of indeterminacy in the data, as well as in language in general. This makes the present approach more realistic and closer to investigating the actual locus of language change, as opposed to relying on strictly predefined clear-cut corpus categories. It is in these indeterminate gray areas that language change often resides, made possible by the very (co-)existence of multiple interpretations.

Although semantics is notoriously slippery and hard to pinpoint, especially for a language with no native speakers, it becomes clear from Table 7 that passive(-like) constructions with *beon* have the highest percentage of unambiguously stative/adjectival interpretations, followed by passive(-like) combinations with *weorðan*, whereas the two types of perfect, with *beon* and *habban*, have none. Looking at unambiguously verbal dynamic readings, *weorðan*-passives are in the lead (in line with this verb's dynamic/eventive semantics), but crucially *be*-passives again evince a lower percentage of verbal dynamic readings than *be*- and *have*-perfects. These independent measures correlate with the relative grammaticalisation rates of these constructions when measured via the loss of adjectival inflections on the participle, a correlation especially visible when examining the percentages of unambiguously stative occurrences. This lends credence to the results above. Even though *be*-perfects seem especially verbal and dynamic in Table 7, particu-

larly because of phrases like 'he was come/gone/travelled' (judged to be dynamic in OE, pace McFadden & Alexiadou 2010), these are still arguably more compositional than semantically bleached *have*-perfects of the type 'they had their king deposed/deposed their king' or 'they had used up their provisions', again in line with my earlier conclusions about relative rates of grammaticalisation and desemantisation. The same applies to dynamic, albeit quite compositional, *weorðan*-passives, where the meaning of the whole is deducible from the meaning of the component parts (unlike bleached *have*-perfects). In essence, passives with *beon* are both compositional, as well as often ambiguously or unambiguously stative; passives with *weorðan* and perfects with *beon* are predominantly dynamic and rarely ambiguously stative, but still largely compositional; *have*-perfects, the most grammaticalised schema, are predominantly dynamic and then also non-compositional (cf. Jones & Macleod 2018: 64–65, who regard semantic non-compositionality as a more reliable diagnostic of grammaticalisation than the expression of dynamic, as opposed to stative, senses). This semantic analysis ties in with the results obtained from examining the formal loss of agreement morphology.

To wrap up, several important conclusions have emerged from this discussion based on the full extant text of MS. A: firstly, the tendencies established for the individual sections also obtain in the entire document; secondly, support for the intrinsically weaker ties between objects and object complements comes from the treatment of morphologically unambiguous Latin loans; thirdly, independent semantic properties have been found to correlate with the relative rates of grammaticalisation when measured by means of the loss of agreement.

7   Conclusion

The incipient evolution of verbal periphrases is one of the major grammatical shifts underway in Old English. There have been few detailed previous studies of the interaction between agreement morphology and the varying rates of grammaticalisation of verbal constructions based on a comprehensive analysis of an original Old English document with the potential to uncover the linguistic trends of the period. Aiming to fill this gap, this paper has shed light on the development of perfects and passives in the *Anglo-Saxon Chronicle*, a corpus of native Old English prose with an extensive timespan, where greater grammaticalisation of a construction is signalled by its increasing text frequency and loss of overt agreement. While inflections on adjectives remain healthy in all the samples, even the later ones, the increasing obsolescence of the adjectival inflections on participles is an outward sign of the more advanced grammaticalisation of periphrastic constructions, with *have-*

perfects more grammaticalised than *be/become*-perfects, which in turn exhibit greater grammaticalisation than passives, the periphrastic construction remaining closest to a copular clause. The data do not support the hypothesis that reanalysis and the decline of overt agreement depended on zero-marked contexts, favouring other plausible scenarios instead, including the rarity of purely adjectival object complements, as well as the weaker syntactic ties between an object and its object complement (as in (proto-)*have*-perfects) compared to the ties between a subject and a subject complement (as in (proto-)*be/become*-perfects and passives). These promising alternative explanations have hitherto remained underexplored and open up exciting avenues for future research.

The finding of a significant degree of variation between perfects and passives builds on and refines previous work; this variation is here plausibly ascribed to a difference in grammaticalisation status and tied to other areas of the grammar of this document, for instance, the inflection of object complements more widely or semantic interpretation in context – this is one of the major contributions of the current paper, significantly improving our holistic understanding of the phenomena under investigation. Moreover, the investigation is firmly anchored in the coherent output of several scribes involved in compiling the *Chronicle* text – the closest we can get to an insight into their internal grammars. My claim that loss of agreement is an effect and not a cause of grammaticalisation is amply substantiated with the detailed analysis of the *Chronicle* material and it moves forward the debate surrounding the exact mechanisms driving grammaticalisation and reanalysis, as well as the consequences of their operation – such a conclusion enhances the adequacy and explanatory power of our theories of language change. Quite importantly, I demonstrate that the reliance on zero-morphology as a trigger, which we see in much previous work, cannot provide a satisfactory explanation of the facts. This research has therefore been a two-pronged effort to contribute to the study of the history of English, as well as to the theory of language change.

Old English texts cited*

*other than the *Anglo-Saxon Chronicle*, following the standard abbreviations adopted in the Dictionary of Old English (https://tapor.library.utoronto.ca/doe/, accessed on 31 March 2023), or the conventions in the original source

CP – King Alfred's West-Saxon Version of Gregory's *Pastoral Care*
Li – *Lindisfarne Gospels*
PsGl(A) – *Psalms*, London, British Library, MS. Cotton Vespasian A.I

APPENDIX

The dataset containing the material from the *Anglo-Saxon Chronicle* is available at: https://www.academia.edu/101441407/APPENDIX_AGREEMENT_AN D_THE_GRAMMATICALISATION_OF_PERFECT_AND_PASSIVE_CONS TRUCTIONS_IN_THE_ANGLO_SAXON_CHRONICLE_2023_

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