
DO THE WEALTHY STAY HEALTHY? RICH AGREEMENT AND VERB MOVEMENT IN EARLY ENGLISH*

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ABSTRACT This paper is a review of the evidence and arguments that have been put forward for a major causal role for the loss of rich agreement in driving changes in verb movement in the history of English. It focuses particularly on Kroch & Taylor (1997), who propose a scenario in which the rise and fall of strict V2 in English is inextricably linked with rich verbal agreement. I provide some reasons to doubt this story: in particular, theories of rich agreement do not make the predictions needed for Kroch & Taylor’s account. Moreover, I show that the distribution of verb movement in historical Englishes is arguably not what would be predicted under any account of rich agreement. Finally, I sketch an alternative account for the loss of verb movement based on developments in the Modern English mood and aspect system.

1 INTRODUCTION

The Rich Agreement Hypothesis (henceforth RAH) states that there is a relation between verb movement to I (or INFL, or T) and the richness of subject agreement morphology. Under the weak RAH (e.g. Bobaljik 2002), rich subject agreement implies movement to I, but not vice versa. Under the strong RAH (e.g. recently Koenenman & Zeijlstra 2014), rich subject agreement and V-to-I movement are in a biconditional relationship. In either form, the RAH implies that one of the secrets of success for verb movement to higher heads in the clause is rich subject agreement morphology on the verb itself.

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The RAH arose in the context of Principles & Parameters syntax, initially as an observation (and then theory) about the synchronic distribution of subject agreement and V-to-I in Germanic and French (Roberts 1985, Kosmeijer 1986, Platzack & Holmberg 1989). It was not long before its diachronic implications were foregrounded, however: under any version of the RAH, the rise of rich agreement in a language without V-to-I must be accompanied by the rise of V-to-I, and the loss of V-to-I in a language with rich agreement must be accompanied by the loss of rich agreement. In addition, under the strong RAH, the rise of V-to-I is predicted to proceed in lockstep with the rise of rich agreement, and the loss of V-to-I similarly with the loss of rich agreement. Roberts (1993) is a seminal investigation of the histories of English and French from this perspective.

This paper is a survey of the predictions of the RAH in the context of English and their explanatory successes and failures, particularly in different historical varieties. The first half of the paper is devoted to an important and influential diachronic narrative put forward by Kroch & Taylor (1997) and Kroch, Taylor & Ringe (2000), who present a scenario that links the loss of the specific V2-V3 constituent order alternations in Old and Middle English – and the brief rise of strict V2 constituent order in the North and East – to the loss of rich verbal agreement. Section 2 outlines this scenario. In Section 3 I briefly revisit some problems for it that have been adduced in the recent literature.

The second half of this paper transitions into a general discussion of richness and its relevance for verb movement in the history of English. Section 4 discusses how to operationalize the notion of morphological richness and how it squares with both the scenario proposed by Kroch & Taylor (1997) and the evidence from early English verb paradigms more generally. This is followed by a discussion of the actually attested verb movement patterns in early English (Section 5), and a brief summary and conclusion (Section 6), including a sketch of a possible alternative scenario.

2 VERB MOVEMENT IN OLD AND MIDDLE ENGLISH: THE KTR ACCOUNT

Here and elsewhere in the paper I use the abbreviation KTR for both Kroch & Taylor (1997) and Kroch et al. (2000), as the two papers present the same diachronic scenario, differing mainly in the parts of the story they focus on.

The starting point for KTR is the constituent order alternation found in West Saxon Old English and in southern Middle English – an issue that has been very intensively explored in the literature (van Kemenade 1987, Pintzuk 1991, 1995, 1999, Lightfoot 1997, Warner 1997, Bech 1998, 2001, Fischer, van Kemenade, Koopman & van der Wurff 2000, Haeberli 2002b, 2005, Speyer 2008, 2010, Biberauer & van Kemenade 2011, van Kemenade & Westergaard 2012,

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Eitler & Westergaard 2014, Walkden 2014, 2015, 2017, Cichosz 2017). Here I sketch the facts only briefly and incompletely. In these varieties, strict V2 is found in *wh*-questions and when the adverb *þa* ‘then’ is in initial position.¹ In other matrix declaratives, however, V2 and V3 are both found. Non-subject-initial clauses in which the subject is a pronoun are almost always V3, as in (1). Other non-subject-initial clauses may be V2, but may also be V3, as in (2).²

(1) *æfter his gebede he ahof þæt cild up*
after his prayer he lifted the child up
‘After his prayer he lifted the child up.’
(Old English; cocathom2,+ACHom_II,_2:14.70.320)

(2) *þeah hweðer his hired men ferdon ut*
though whether his household men went out
‘Nevertheless his retainers went out.’
(Old English; cochronE, ChronE_[Plummer]:1087.26.2994)

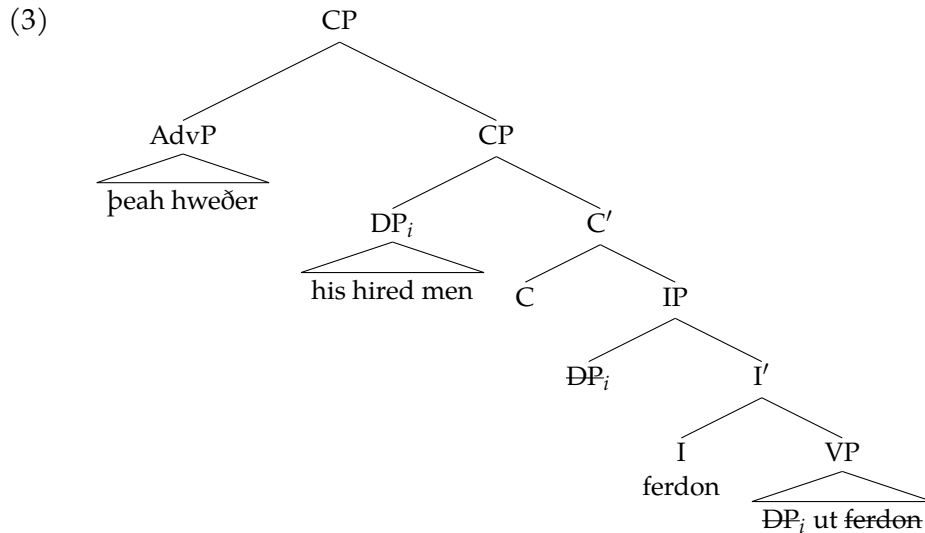
KTR’s analysis of these facts (adopting and revising an approach originally proposed in Pintzuk 1991, 1995, 1999) is that the verb moves only as high as I in such clauses. SpecIP is assumed not to be exclusively a subject position, but rather an intermediate stopping-off point for topics on their way to SpecCP.³ Examples like (1) are accounted for by assuming that pronouns must cliticize to the immediate right of the first constituent (van Kemenade 1987, Pintzuk 1991). Examples like (2) are accounted for as in (3), with exceptional CP-adjunction of the adverbial. Since for KTR the V2 constraint is satisfied at the IP level in these varieties, this is not problematic.

In KTR’s account (Kroch & Taylor 1997: §4), the use of SpecIP as an A’-position is made possible by the fact that the subject agreement morpheme on the verb in I can bind a postposed or VP-internal subject: effectively, a subject expletive is incorporated into I (see Alexiadou & Anagnostopoulou 1998). KTR hypothesize that this ‘IP-V2’ system can only be maintained when verbal agreement is rich – in other words, that rich agreement is the secret of success for IP-V2.

1 And perhaps with other ‘operator’ elements: see most recently Cichosz (2017).

2 Unless otherwise stated, examples are taken from the YCOE (Taylor, Warner, Pintzuk & Beths 2003) and PPCME2 (Kroch & Taylor 2000) corpora.

3 For KTR the movement of the topic to SpecCP is semantically-driven, following Heycock (1994): at the highest clausal level of predication, topics are surface ‘subjects’ (see also Mohr 2009).



KTR demonstrate that in northern Middle English dialects, and in late Northumbrian Old English, a ‘CP-V2’ grammar is attested in examples like (4). In these varieties, V2 is strict, as it is in the modern Germanic standard varieties. Following the classic analysis by [den Besten \(1989\)](#), they account for this by assuming verb movement to C in all matrix clauses.

- (4) *Lauerd, of me haue I noht, bot þu sende it me.*
 lord of me have I nothing but you send it me
 ‘Lord, by myself I have nothing unless you send it to me.’
 (Middle English, *Northern Prose Rule of St. Benet*, 15th century;
 CMBENRUL,3.60)

The transition from IP-V2 to CP-V2, according to KTR, is caused by Norse influence. Specifically, North-Germanic-speaking people settled in the north and east of England between the 9th and the 11th centuries, and failed to learn the verbal endings of Old English. Without this crucial ingredient, IP-V2 could not be maintained, and gave way to CP-V2, which is syntactically similar but does not depend in any way on subject-verb agreement.⁴ Thus, the KTR account involves two major developments, which come bundled together: the loss of V-to-I, and the concomitant rise in V-to-C.

⁴ According to [Kroch et al. \(2000: §4.3\)](#), the eventual loss of V2 is due to contact between northern CP-V2 speakers and southern IP-V2 speakers. Northern speakers would have accommodated to their interlocutors by positing a non-V2 grammar in order to account for the exceptions to strict V2 they encounter. This new non-V2 variety was then acquired by children and eventually won out through a process of grammar competition. This part of the scenario is plausible, and I will have nothing to say about the eventual loss of V2 in this paper.

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3 PROBLEMS FOR THE KTR ACCOUNT

This section briefly outlines two potential issues with the diachronic narrative provided by KTR: the role of contact with Norse (§3.1) and the IP-V2 analysis itself (§3.2). The two issues are independent of the question of rich agreement that is at the heart of this paper, and also independent of each other. Both problems must be overcome in order for the KTR account of the rise of strict V2 to work, however.

3.1 *Problems for the Norse contact scenario*

Central to the narrative is the role of Scandinavian-speaking second-language learners of Old English and their imperfect acquisition of verbal morphology (Kroch & Taylor 1997: §7). While it is unquestionable that Norse did exert a powerful grammatical influence on Middle English, Walkden (in press) provides some reasons to doubt that the situation was of the kind needed for KTR's account. The reader is referred to that paper for the details; here I give just a brief overview of some of the key points.

Kroch & Taylor (1997: §8) show that CP-V2 (or something very much like it) is attested in the Lindisfarne and Rushworth 2 Gospel glosses, two tenth-century Northumbrian texts, as are the 'simplified' endings (on which see further Section 4 of the present paper). That means that the relevant time and place for the contact situation is 9th- and early 10th-century Northumbria. Both chronologically and geographically this is problematic, however. As regards the place, Bernicia, the northern part of Northumbria where the glossators are thought to hail from, was not part of the core area of Scandinavian settlement in Britain (Thomason & Kaufman 1988, Samuels 1989): evidence from Norse lexical borrowings in English dialects (Kolb 1965), place-name evidence (Watts 1995), and archaeological and genetic evidence (Kershaw & Røyrvik 2016) all converge to suggest that the area north of the river Tees was comparatively sparsely settled.

In terms of the when and how, too, the narrative is a coarse fit. Since the publication of KTR, Townend (2002) has made a convincing case that Norse and English of the period were probably mutually intelligible. If so, it is highly unlikely that extensive second language learning, and hence imperfect acquisition of verbal morphology, was involved at any period. To be sure, L2 acquisition is not a necessary condition for morphological levelling: an alternative scenario that would yield the same outcome is koineization (Siegel 1988), in which mutually intelligible varieties give rise to a new 'compromise dialect'. There is substantial evidence for morphological simplification induced by koineization: Aalberse (2009), for instance, argues that the loss of distinctive

second person endings in the history of Dutch was motivated by inflectional economy emerging in dialect-levelling contexts, and Breitbarth (2014) argues similarly for the loss of the negative clitic *en* in Middle Low German. As for the Norse-English contact situation, Warner (2017: 375–385) makes the case in detail that the morphological simplifications that we see in Middle English texts from the area of Scandinavian settlement are the result of just such a process. Second language learning probably did not play a major role in Norse-English contact, then, though this is not fatal for KTR’s broader argumentation.

When the Norse-speaking communities of England ultimately shifted to English, we would expect to see imposition (in the terms of van Coetsem 1988, 2000, Winford 2005) and transfer of grammatical properties via shift, as well as some level of second language learning motivated by sociolinguistic factors. But there is no reason to believe that this happened before the cessation of Norse direct rule in England in 1042 CE, during which time the language would have enjoyed considerable overt prestige. Indeed, when we look at the linguistic evidence for Norse morphological and syntactic influence on early English, no clear-cut examples can be found until the 11th century. Pons-Sanz’s (2013) comprehensive overview of lexical borrowing yields no examples of closed-class grammatical words being transferred before this, and the morphosyntactic transfers listed in Miller (2012: chapter 5) are all evidenced in the Middle English period. There is no independent evidence for structural transfer from Norse into Northumbrian Old English, and alternative explanations are available for the morphological ‘simplification’ observed in these texts (Cole 2014: 26–34). Warner (2017) is also sceptical about the idea that the verbal endings found in Northumbrian Old English are Norse-influenced: ‘the stages of development implied by the gloss to the *Lindisfarne Gospels* do not support such an origin, which seems more likely to be home-grown’ (2017: 373, note 98).

3.2 Problems for the IP-V2 analysis

KTR’s analysis of West Saxon and southern Middle English involves the verb moving no higher than I. The same general approach is taken in a variety of works: Pintzuk (1991, 1995, 1999), Eythórsson (1995), and more recently Speyer (2008, 2010). Another line of thinking holds that the verb moves to a low head in a split CP-domain (Roberts 1996, Westergaard 2005, 2009, Hinterhölzl & Petrova 2010, Hinterhölzl 2017, Walkden 2014, 2015, 2017, Salvesen & Walkden 2017, Walkden & Booth 2020). If the latter line of thinking is correct, then the RAH is irrelevant to these varieties of English, since V-to-C movement is not connected to richness of subject-verb agreement.

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It is not easy to tease apart the predictions of the V-to-I and V-to-C approaches. All attempts to do so, however, have favoured the V-to-C approach. Two key strands of evidence can be adduced in this connection.

First, in V3 clauses like (2) above, the immediately preverbal constituent has a very particular profile. [Bech \(1998, 2001\)](#) shows that preverbal subjects have a substantially lower communicative dynamism than postverbal subjects. This and subsequent findings (e.g. [van Kemenade & Westergaard 2012](#)) can be taken to show that the preverbal constituent has the information-structural profile of a familiar topic. Moreover, these preverbal constituents need not be subjects: pronominal objects can occupy this position (as shown already in [Pintzuk 1991, 1999](#)), as can light discourse-anaphoric adverbs such as *þær* ‘there’.⁵ This can be naturally captured if the preverbal position is the specifier of the lower TopP of [Rizzi \(1997\)](#), or, in particular, the FamP of [Frascarelli & Hinterhölzl \(2007\)](#), situated above FinP and below FocP (see [Walkden 2014: 67–89](#) for an analysis along these lines). By contrast, the V-to-I approach makes no such prediction.

Secondly, there is a robust clause type asymmetry between matrix and embedded clauses in Old English: true embedded V2 and V3 under complementizers – in particular, non-subject-initial embedded V2 and V3 – is rare to the point of nonexistence ([van Kemenade 1997](#), [Salvesen & Walkden 2017](#), [Walkden & Booth 2020](#)). This is, of course, precisely the sort of fact that motivated [den Besten’s \(1989\)](#) analysis of asymmetric V2 languages as involving V-to-C movement. [Kroch & Taylor \(1997\)](#) are aware of these facts, and suggest that this asymmetry in Old English ‘may, indeed, not be a syntactic fact’ (1997: 309), instead reflecting an extrasyntactic discourse effect – though they acknowledge that how exactly such an effect works is an open question (1997: 310). The asymmetry falls out directly as a consequence of the V-to-C approach, on the other hand, assuming that the head to which the verb moves is one that normally hosts the finite complementizer in embedded clauses (see in particular [Salvesen & Walkden 2017](#)).⁶

The two problems addressed in this section touch on different facets of KTR’s narrative.⁷ If, as argued in §3.1, the contact situation involving Norse-

⁵ The assumption that personal pronouns etc. are clitics, adopted in early research by [van Kemenade \(1987\)](#) and [Pintzuk \(1991, 1995, 1999\)](#), buys the analyst very little, and lacks independent motivation. See [Koopman \(1997\)](#), [Bech \(2001: 79–86\)](#), and [Walkden \(2014: 83–84\)](#).

⁶ In fact, an additional assumption is needed in this approach: complementizers must be base-generated in a lower CP projection and raise via head-movement to a higher one. This idea was first proposed for early English by [Roberts \(1996\)](#) and is motivated in detail by [Salvesen & Walkden \(2017\)](#).

⁷ Another potential problem is raised by [Warner \(1997: 389–390\)](#), who points out that there is a very high degree of variation between individual texts in Middle English, and suggests that this variation may be better conceptualized as stylistic rather than truly involving ‘a radically

speaking second language learners in pre-tenth-century Northumberland is not plausible, then a link in KTR's diachronic causal chain is broken. If, as argued in §3.2, the IP-V2 analysis is insufficient to account for the West Saxon Old English data, then the narrative cannot be correct synchronically, as we would not expect subject-verb agreement to play an important role – at least not at this early stage.⁸ In the rest of this paper, however, I will assume for the sake of argument that these two problems can be solved somehow, and that both the synchronic analyses and the contact situation are as KTR claim. In Sections 4 and 5 we will see that the narrative faces further problems: no existing and adequate theory of rich agreement makes the predictions that KTR's account need it to make, and the verb movement facts for Middle English are also problematic for KTR.

4 HOW RICH IS RICH?

This section addresses what it means for subject-verb agreement to qualify as 'rich': at least in principle, there should be a cut-off point between non-rich and rich, and this cut-off point should be detectable if the RAH is to have any empirical content. Not everyone who has worked on the RAH has made their criteria for richness explicit, however. KTR, for instance, do not discuss what it means (morphophonologically) for agreement to be rich – but whatever it is, West Saxon Old and southern Middle English have to have it, while Northumbrian Old and northern Middle English have to lack it. Another thing we can infer from the discussion in KTR is that the *strong* RAH must be valid in order for their narrative to function as intended: the loss of rich morphology must have a causal role in the loss of V-to-I. If only a one-way implication is sustainable (Bobaljik 2002), the loss of rich agreement cannot cause the loss of V-to-I, since the weak RAH allows V-to-I to live in harmony with poor subject-verb agreement in one and the same language.

different grammar' as proposed by KTR; in other words, the existence of the Northern strict V2 grammar is called into question. See recently also Eitler (2006) and Eitler & Westergaard (2014), who show that there is also intra-individual variation in the usage of authors like Chaucer and Capgrave based on the audience they were writing for. I will assume, together with KTR and these latter authors, that it is indeed meaningful to conceptualize this variation as involving two distinct grammars.

⁸ I am not disputing here that at a later stage, i.e. for late Middle English and Early Modern English, a V-to-I analysis is appropriate. The argument here is about the status of West Saxon Old English and early southern Middle English.

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<i>Source</i>	<i>Strength</i>	<i>Richness criterion</i>
Platzack & Holmberg (1989)	Strong	Person distinctions are morphologically marked on the verb
Roberts (1993: 263–273)	Weak	Overt distinct morphological plural marking
Rohrbacher (1994, 1999)	Strong	In at least one number of at least one tense of the regular verbs, the person features [1st] and [2nd] are both distinctively marked
Vikner (1997)	Strong	Person morphology is found in all tenses
Koenenman (2000: 67–84)	Weak	Three features ([α speaker], [α addressee], [α singular]) are required for the description of a paradigm
Bobaljik (2002)	Weak	Finite verbs may bear multiple distinct inflectional morphemes
Koenenman & Zeijlstra (2014)	Strong	Featural distinctions are expressed in all three dimensions +/–speaker, +/–participant, +/–plural

Table 1 Theories of richness

4.1 Theories of richness

The earliest works proposing the RAH ([Roberts 1985](#), [Kosmeijer 1986](#)) did not define richness precisely. Subsequent works made more explicit proposals, which can be evaluated against the historical English evidence. An overview is given in [Table 1](#).

Definitions of richness vary along a number of dimensions. For the most part, it is assumed or stated that the regular present tense indicative verbal paradigm is the one that is pertinent for calculating richness.⁹ [Rohrbacher \(1994, 1999\)](#) and [Vikner \(1997\)](#) are exceptions, as they specify the relevance of tense (at least one tense for Rohrbacher; all tenses for Vikner). In what follows, I will make reference to both present and past tense paradigms. Definitions also differ as to whether they make reference purely to surface contrasts within paradigms (the early definitions) or rather to the feature structure or morphemic structure underlying that morphology ([Koenenman](#)

⁹ Otherwise, present-day English would have rich agreement under most definitions by virtue of the verb *BE*.

2000, Bobaljik 2002, Koenenman & Zeijlstra 2014). This distinction is partly symptomatic of a fundamental difference in morphological theorizing between incremental approaches, in which morphology is built up directly in the syntax via head movement, and realizational approaches, in which the syntax operates only on feature structures and morphology itself is post-syntactic (see particularly Bobaljik 2002). Since the focus in this paper is on the empirical evaluation of morphological richness, the theoretical issue will be left aside here, but it is worth noting that not every storable generalization about the link between subject-verb agreement morphology and syntactic movement is also conceptually tenable, and that a generalization with good empirical purchase may nevertheless need to be rejected if it cannot be motivated or explained theoretically.

With the definitions in mind, we can turn to the observed patterns of subject-verb agreement found in early English.

4.2 Early English subject-verb agreement

4.2.1 West Saxon Old English

For West Saxon OE, the class 1 weak verb *hīeran* is taken as an example, though endings differ little between weak and strong verbs. Something like the paradigm presented in Table 2 can be found in any grammar of Old English; see e.g. Hogg & Alcorn (2012: 43) or Hogg & Fulk (2011: 260–261).

Person/Number	Present	Past
1SG	hīere	hīerde
2SG	hīerst	hīerdest
3SG	hīerð	hīerde
PL	hīerað	hīerdon

Table 2 Agreement in West Saxon

It can be seen that West Saxon OE meets all definitions of richness. For the purposes of Bobaljik (2002), it seems plausible that the past tense *-d-* can be treated as a distinct inflectional morpheme, as it is uniform across the paradigm.¹⁰ All theorists cited therefore predict West Saxon OE to have at

¹⁰ A reviewer points out that under this type of account additional allomorphy is needed, since the person and number morphemes in the past tense would not be the same as those in the present tense (e.g. *-að* in the present plural vs. *-on* in the past plural). Such allomorphy is not difficult to handle under the morphological theory assumed by Bobaljik (2002), however: all that is needed is a context-sensitive rule of vocabulary insertion. If instead a monomorphemic analysis is pursued, West Saxon OE fails to be rich under Bobaljik's approach.

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least V-to-I movement, as required by KTR's narrative.

4.2.2 Northumbrian Old English

Northumbrian OE is both much more variable and much less well attested – the only substantial documents are three late (tenth-century) interlinear glosses, and it can be questioned whether these documents constitute a unified category (Fernández Cuesta & Senra Silva 2008). Here I rely on the comprehensive overview of forms in Berndt (1956: 94–131 and 256–263), ignoring variants that are very rarely attested (see also Cole 2014: 23–24, based on Ross 1960: 39). Again I use the class 1 weak verb *hēran* for Table 3.

Person/Number	Present	Past
1SG	hēra/e/o	hērde
2SG	hēras/es	hērdes(t)
3SG	hēras/es, hērað/eð	hērde
PL	hēras/es, hērað/eð	hēron/un

Table 3 Agreement in Northumbrian Old English

Due to the variant forms, it is a little more debatable whether this paradigm counts as rich. Since the first person singular present form is distinct, it would be classified as rich by Platzack & Holmberg (1989). For Vikner (1997), too, this paradigm is rich, since person morphology is found in all tenses. As in West Saxon OE, *-d-* can be treated as a distinct inflectional morpheme, so this paradigm is rich for Bobaljik (2002). All three features *+/-speaker*, *+/-participant*, *+/-plural* are required to characterize the morphological distinctions found, so this morphology is rich according to Koenenman (2000) and Koenenman & Zeijlstra (2014).

For Roberts (1993), by contrast, this paradigm is poor, since there is no distinct plural marking in the present tense. For the definition provided by Rohrbacher (1994, 1999), it depends whether the third person present singular is distinct from the second person. The historical form in *-ð* is clearly distinct, the incoming form in *-s* is not. For KTR it is crucial that the Northumbrian agreement be weak. Adopting Rohrbacher's definition, one could assume that the two endings represent two competing grammars in the sense of Kroch (1989, 1994, 2001), one rich, one poor.¹¹ This is plausible since CP-V2 is not categorical in these texts either (see Kroch & Taylor 1997: §8 and Walkden in press). Some cautionary notes are in order, though. First, only Rohrbacher's

¹¹ The variation in vowels in unstressed syllables can reasonably be treated as phonological.

definition of richness is compatible with KTR's argument – since [Roberts \(1993\)](#) adopts the weak RAH, the loss of morphology should not immediately cause syntactic change under his account, and all other definitions class the Northumbrian OE subject-verb agreement as rich. Secondly, the endings in *-ð* and *-s* are not in free variation: [Cole \(2014\)](#) has shown convincingly that subject type and adjacency conditions this choice, as in other varieties that exhibit the so-called Northern Subject Rule. How this sort of alternation relates to morphological richness is not at all clear.

4.2.3 Southern Middle English

The overview of Southern ME forms in Table 4 is based on [Lass \(1992: 134, 137\)](#), [Vikner \(1997: 203\)](#) and [Horobin & Smith \(2002: 115–116\)](#).

Person/Number	Present	Past
1SG	here	herde
2SG	herest	herd(e)st
3SG	hereth	herde
PL	here(n)	herde(n)

Table 4 Agreement in Southern ME

This paradigm can quite straightforwardly be seen as a continuation of West Saxon OE: the main development is the levelling of *-e(n)* across the plural in both the present and past tenses. The table elides substantial variation, on which see [Lass \(1992: 134–139\)](#), and represents a roughly Chaucerian ME. At least as long as the distinctive final *-n* is present in the plural, this paradigm continues to conform to all definitions of agreement richness, as required by KTR's narrative.

4.2.4 Northern Middle English

The Northern ME paradigm presented in Table 5 is based on [Lass \(1992: 137\)](#) and [Vikner \(1997: 205\)](#), and represents the situation in the fourteenth-fifteenth centuries. As for Northumbrian OE, classifications differ for this variety. For [Platzack & Holmberg \(1989\)](#) and [Bobaljik \(2002\)](#), Northern ME is rich for the same reasons as Northumbrian OE. Insofar as the *-est* ending is preserved in the second person singular of the past tense, it is also rich for [Vikner \(1997\)](#), for [Koeneman \(2000\)](#), and for [Koeneman & Zeijlstra \(2014\)](#). By contrast, for [Rohrbacher \(1994, 1999\)](#) it is poor, since in neither the present nor the past are both the first and second person forms distinctively marked, and for [Roberts](#)

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Person/Number	Present	Past
1SG	her(e)	herde
2SG	heres	herde(st)
3SG	heres	herde
PL	heres	herde(n)

Table 5 Agreement in Northern ME

(1993) it is poor, since there is no distinct plural form (at least in the present tense; see Roberts 1993: 266–268).

4.2.5 Early Modern English

Finally, the situation in Early Modern English (1500–1700) is presented in Table 6, following Nevalainen (2006: 90) (see also Vikner 1997: 203 and Koeneman 2000: 77).

Person/Number	Present	Past
1SG	hear	heard
2SG	hear(e)st	heardst
3SG	hears, heareth	heard
PL	hear	heard

Table 6 Agreement in Early Modern English

For several authors, this paradigm qualifies as morphologically poor. This is true for Rohrbacher (1994, 1999) since the first person is not distinctively marked in either the present or the past tense, and for Roberts (1993) since there is no overt plural marking. Koeneman (2000: 77–79) also argues that this agreement is poor because the acquirer cannot establish a hierarchical feature representation. On the other hand, for Platzack & Holmberg (1989), Vikner (1997) and Bobaljik (2002) this paradigm counts as rich, as person distinctions are found in all tenses (and *-d-* co-occurs with a person suffix) until the loss of *-st*. Koeneman & Zeijlstra (2014) do not discuss Early Modern English, but Haeberli & Ihsane (2016: 525–528) suggest that the loss of *-st* is crucial for them too (see also Haeberli & Ihsane 2014: 8–16).¹²

¹² The discussion in Koeneman & Zeijlstra (2014: 35) suggests that these authors consider the loss of V-to-I to follow the crucial reduction in morphology, but they do not spell out why this

<i>Definition</i>	<i>W. Sax. OE</i>	<i>North. OE</i>	<i>South. ME</i>	<i>North. ME</i>	<i>Early Mod. E</i>
Platzack & Holmberg (1989)	Rich	Rich	Rich	Rich	Rich
Roberts (1993: 263–273)	Rich	Poor	Rich	Poor	Poor
Rohrbacher (1994, 1999)	Rich	Poor	Rich	Poor	Poor
Vikner (1997)	Rich	Rich	Rich	Rich	Rich
Koenenman (2000: 67–84)	Rich	Rich	Rich	Rich	Poor
Bobaljik (2002)	Rich	Rich	Rich	Rich	Rich
Koenenman & Zeijlstra (2014)	Rich	Rich	Rich	Rich	Rich?

Table 7 Classifications of richness

4.3 Summary

Table 7 summarizes the different early English varieties and how they are classified according to different definitions of richness.

Only Roberts (1993) and Rohrbacher (1994, 1999) define richness in such a way as to predict V-to-I in West Saxon OE and Southern ME but not in any of the others, as required by KTR’s narrative, and only under Rohrbacher’s strong version of the RAH can the loss of morphology be a sufficient (rather than merely necessary) condition for the loss of V-to-I in Northumbrian OE and Northern ME. We now turn to the syntactic facts themselves.

5 VERB MOVEMENT IN MIDDLE ENGLISH: THE EVIDENCE

The Old English facts have already been discussed in §2 and §3.2, so do not need to be revisited here. This section focuses on the Middle English period onwards, particularly as V2 itself is lost.

The situation in different varieties of later ME has been investigated intensively since Roberts (1993). Since KTR adopt the strong RAH, they predict

 should be the case.

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that V2 should give way to a system without V-to-I. An immediate problem for their account, and one that they themselves acknowledge, is that all varieties of ME do in fact exhibit verb movement to (at least) I. Examples (5) and (6) are from southern texts, and (7) and (8) are from northern texts. All are post-1350. The standard diagnostics for V-to-I are used: finite verb preceding medial adverbs in (5) and (7), and preceding negation in (6) and (8).

- (5) *Loo, þis good Ladies peticion sowned alvey vn-to charite,*
lo this good lady's petition sounded always to charity
loue, and grace
love and grace
'This good lady's petition always favoured charity, love and grace'
(southern ME; CMROYAL,256.298)
- (6) *but in alle thys tyme they sawe nought the kynge*
but in all this time they saw NEG the king
'But in all this time they did not see the king.'
(southern ME; CMGREGOR,110.351)
- (7) *Drynke ofte ewefrase, for it helpis ofte souereynly þe*
drink often euphrasia for it helps often sovereignly the
syghte.
sight
'Drink euphrasia often, because it often greatly helps sight.'
(northern ME; CMTHORN,8.119, CMTHORN,8.120)
- (8) *if it come owte at þe wounde & he caste nott*
if it come.SBJV out at the wound and he cast.SBJV not
'If it comes out at the wound and he does not vomit, ...'
(northern ME; CMTHORN,69.489)

Recent work by [Haeberli & Ihsane \(2016\)](#) has investigated the ME and Early Modern English situation in great quantitative detail. They claim that the loss of verb movement proceeds in two steps. The first event is that V-to-T movement is lost between 1400 and 1600, with the change proceeding most rapidly around 1500. This is illustrated most clearly by the evidence from adverbs ([Haeberli & Ihsane 2016](#): §3). The loss of verb movement past negation appears to be a separate change, proceeding more slowly between 1500 and 1800 ([Haeberli & Ihsane 2016](#): §4). They interpret this as the loss of V-movement to a clausal functional head Asp(ect), located below T but above *v/V* and (crucially) Neg.

KTR admit that this presence of movement in late ME is a major problem with their account, and provide a technical workaround. Adopting the split-IP proposal of Pollock (1989), they suggest that northern ME (and mainland Scandinavian varieties) had movement to T, but not to the higher head AgrS.¹³ The proposed correlation between rich agreement and verb movement then holds at the level of AgrS, but not at the level of T. A precondition for movement to T is overt tense marking in both present and past, which mainland Scandinavian varieties and northern ME all possess.

There are a number of problems for this account. First, the status of Agr projections has been called into question on conceptual grounds (Chomsky 1995: 348–377). For some of the theories of rich agreement adopted (e.g. Bobaljik 2002, Koenenman & Zeijlstra 2014), the presence of such semantically vacuous projections is necessary for the theory to function, and so again for the sake of argument we will assume that they are possible. Secondly, at least for mainland Scandinavian, evidence for V-to-T is entirely lacking (Kroch & Taylor 1997: note 25), which can only be explained by asserting that ‘left-adjunction to VP is blocked for some reason’ in this language. Thirdly, the predictions of V-to-AgrS and V-to-T analyses are difficult to tease apart syntactically, and KTR do not provide any means of doing so. We would need a theory of what can be found specifically in SpecTP (as opposed to AgrS) or what can be adjoined to it. The subsequent literature has developed such theories (e.g. Bobaljik & Thráinsson 1998; Haerberli 1999a,b, 2002a). But in the absence of such a theory, appealing to a difference between V-to-AgrS and V-to-T has the effect of immunizing the RAH from falsification. Note that there are no empirical or conceptual grounds to assume this difference, other than the fact that the syntactic evidence otherwise challenges (KTR’s version of) the RAH.

Late ME and Early Modern English, then, is problematic because they seem to have V-to-I without rich agreement. KTR also note another problematic variety, which is that of the East Midlands, including some texts by Chaucer (see recently Eitler 2006 for discussion of constituent order variation in Chaucer’s works). Here the problem is the reverse: CP-V2 is found in these texts, even though the morphology is of the kind presented in §4.2.3 and thus rich enough to permit V-to-I. Warner (1997: 390) suggests that the *Ormulum*, an indisputably Northern Early Middle English text, is problematic in the same way. Nothing, of course, rules out onward verb movement to C in a language with rich agreement, but the fact that CP-V2 emerged here despite there being no morphological impetus for this to happen is a *prima facie* problem for KTR’s diachronic narrative. Kroch & Taylor (1997: note 24) comment as follows:

¹³ The same proposal is made, apparently independently, in Watanabe (1994).

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‘Further investigation will be needed to uncover why the CP-V2 grammar appears in the East Midlands. One possibility is that the collapse of agreement in that area, one of extensive Scandinavian settlement at the time of the 9th and 10th century Danish invasions, is subsequently reversed, due to contact with and population influx from adjacent dialect areas that maintained the native English morphology.’

No evidence has to date been presented for this diachronic scenario in which agreement dies out before being resurrected. Until such evidence is uncovered, the scenario can reasonably be dismissed.

To summarize this section: the loss of V2 is followed in all ME and Early Modern English varieties by a period where V-to-I movement is unambiguously attested, lasting at least until 1400–1600, when it was lost from the language through a process of grammar competition. This is not compatible with KTR’s diachronic scenario, which requires V-to-I to have been impossible in northern varieties from the tenth century onwards.

6 OUTLOOK AND CONCLUSION

6.1 *KTR’s account*

Kroch & Taylor (1997) and Kroch et al. (2000) argue that second-language learning of English by Norse-speaking learners affected subject-verb agreement such that V-to-I was necessarily lost in favour of CP-V2. This paper has presented the following arguments against such a scenario:

- i. The place, time and nature of English-Norse contact in the Middle Ages were such that 10th-century second-language learning of English in Northumbria by substantial numbers of Norse speakers is unlikely (§3.1).
- ii. The analysis of West Saxon OE and Southern ME as IP-V2 is not tenable (§3.2).
- iii. Most definitions of richness adopted by proponents of the RAH in fact class Northumbrian OE and Northern ME as having rich agreement (§4).
- iv. V-to-I is found until 1400–1600 (§5).
- v. V-to-C varieties are found co-occurring with rich agreement, e.g. in some works by Chaucer (§5).

Individually each one of these arguments might in principle be overcome. On the face of it, however, and taken together, they cast substantial doubt on the scenario as a whole. I suggest that an alternative account is needed.¹⁴ The answer to the title of the paper, then, appears to be a ‘no’: there is no connection between wealth and health, at least as regards the type of V2 system found in Old and Middle English. Whatever the secrets of success of V2 systems are, then, subject-verb agreement does not seem to be one of them.

6.2 *The RAH and the history of English*

A decade ago it seemed that the idea of a correlation between subject-verb agreement and syntactic movement had fallen into general disfavour due to insurmountable empirical difficulties (Sundquist 2003, Bailyn 2005, Bentzen 2007, Bentzen, Hrafnbjargarson, Hróarsdóttir & Wiklund 2007, Garbacz 2010). But debate about the general validity of the RAH has ground on. More recently, Koenenman & Zeijlstra (2014) have provided a valiant defence of the hypothesis in its strong form, since supported by a typological survey finding no counterexamples (Tvica 2017). Not everyone is convinced, however: Heycock & Sundquist (2017) claim that the persistence of V-to-I movement in Early Modern Danish is problematic for Koenenman & Zeijlstra’s version of the hypothesis, and Fuss (2019) presents some diachronic scenarios that also challenge the hypothesis, including data from Cimbrian and Lithuanian.¹⁵

When it comes to the history of English, no existing theory can correctly predict the timing of the loss of V-to-I. As discussed in §4.2.5, all definitions of richness either class early English inflection as poor well before the beginning of the Early Modern English period, or take the loss of *-st* as the crucial development. Definitions of the former type make the incorrect prediction that Early Modern English should already have lost V-to-I (at least under the strong RAH). Definitions of the latter type make the incorrect prediction that

¹⁴ It is beyond the scope of this paper to provide one, but see Walkden (2017: 73–74) for one idea.

¹⁵ Another set of potentially problematic data comes from Danish, Norwegian and Swedish urban vernaculars as described by Freywald, Cornips, Ganuza, Nistov & Opsahl (2015). These varieties have the same verbal morphology as the corresponding standard varieties, i.e. unequivocally poor agreement. Nevertheless, they exhibit V3 constituent orders with subjects in preverbal position.

(9) *normalt man går på ungdomsskolen*
usually one goes to youth.club
‘Normally you attend the youth club.’
(Danish Urban Vernacular; Quist 2008: 14)

If these varieties have V-to-I or V-to-T rather than V-to-C movement, as argued by Nistov & Opsahl (2014), then they are problematic for the strong version of the RAH. See Walkden (2017) for an alternative analysis, however.

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V-to-I should not be lost until *-st* is lost, i.e. in the seventeenth century.

6.3 *An alternative: the role of mood and aspect*

Biberauer & Roberts (2010) depart from all previous literature on the RAH by suggesting that tense/mood/aspect – rather than subject-verb agreement – is what crucially correlates with verb movement to the IP-domain. In this section I sketch a proposal that unifies Biberauer & Roberts’s insight with the evidence unearthed by Haeberli & Ihsane (2014, 2016) and Cowper & Hall (2012), though my approach differs from the one proposed by Biberauer & Roberts (2010: 278–284) themselves.

The core idea in Biberauer & Roberts (2010) is that V-to-T movement is triggered because verbs in such languages are syntactic V+T compounds, expressing both verb and tense, and must undergo a kind of head-movement in order to reproject. As observed by Biberauer & Roberts (2010: 278–279), however, tense is an unpromising candidate for diachronic explanation in the history of English, since all stages of the language have the same tense system, with two synthetic tenses. The same reasoning can be applied to mood and aspect, however.¹⁶

I propose that finite verbs in late ME were V+Asp+M(ood) compounds, thus moving to a head in the IP-domain. Between 1400 and 1600, the M(ood) component was lost, leaving English verbs as V+Asp compounds moving to Asp. Between 1500 and 1800, the Asp component was also lost, and verbs stopped moving as high as Asp.

The first of these changes correlated with the loss of the indicative-subjunctive distinction. As has long been recognized, present-day English does not have a morphological subjunctive (see e.g. Huddleston & Pullum 2002: 87–88). Roberts (1985: 40–42) shows that the modern subjunctive construction (e.g. *It is vital that he leave*) is best understood in terms of an unpronounced modal element, a phonologically null but otherwise unremarkable member of the English auxiliary system. The lexical verb form found in such constructions is then simply the infinitive form. Such an analysis only became possible, however, once the distinctive infinitive ending *-e(n)* had been lost. According to Roberts (1993: 261), Roberts & Roussou (2003: 41–42) and references cited there, this happened in the years leading up to and around 1500. This loss made the subjunctive and infinitive forms totally nondistinct, paving the way for acquirers to reanalyse ‘subjunctives’ as involving a null modal and a non-finite verb form. With the morphological indicative-subjunctive distinction

¹⁶ See also Schifano (2018) on microvariation in verb movement in Romance, developing Biberauer & Roberts’s proposal in terms of the overall tense-mood-aspect systems of the varieties in question

now entirely absent in regular verbs, there was no longer any motivation for an analysis of these verbs as involving a M(ood) component, and so this was dropped, with concomitant loss of verb movement to the IP-domain.

The second change, the loss of the Asp component and V-to-Asp, correlates with a number of syntactic changes that have been little remarked upon in the literature. [Cowper & Hall \(2012\)](#) list five changes whose completion they date to 1780–1800:

- The loss of the passival (e.g. *The house was **building***)
- The rise of the progressive passive (e.g. *The house was **being built***)¹⁷
- The loss of intransitive-for-passive readings (e.g. *They'll [the rabbits] **eat** much better smothered with onions*)
- The loss of the resultative *be*-perfect (e.g. *I **am** arrived*)¹⁸
- The loss of the aspectually neutral simple present (e.g. *What **do** you read, my Lord?*)

[Cowper & Hall \(2012\)](#) propose that all of these changes reflect a single development: the uncoupling of two phrases, Aspect and Voice, that were conflated in Early Modern English. Whereas in Early Modern English these were a single syntactic projection, headed by VAsp, they split in Late Modern English to become separate phrases, with AspP above VoiceP. Crucially, a consequence is that analytic constructions (such as the progressive in *-ing*) become obligatory to express aspectual distinctions, with simple tense forms no longer able to express neutral viewpoint aspect ([Cowper & Hall 2012: 14](#)). I propose that this correlated with the loss of the Asp component of finite verbs, and thus also the loss of verb movement to Asp, the second change demonstrated by [Haerberli & Ihsane \(2016\)](#).¹⁹

Much work remains to be done to test this theory, in particular to see whether the diachronic developments dovetail as neatly as they should, and

¹⁷ [van Bergen \(2013\)](#) shows that the earliest attested instances of the progressive passive date to the 1760s, and that the construction rises rapidly in frequency around 1800.

¹⁸ [McFadden & Alexiadou \(2010\)](#), who have studied this change in detail, show using the Penn Parsed Corpora of Historical English that the resultative *be*-perfect is used at a relatively constant rate up to 1710. They date its loss to 1700–1900 ([McFadden & Alexiadou 2010: 417](#)), which fits with the account given here.

¹⁹ [Coniglio, De Bastiani, Hinterhölzl & Weskott \(2021: 18\)](#), in a paper published shortly before this paper went to press, have independently proposed exactly the same scenario: a two-step change with mood linked to the first step and aspect linked to the second.

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also whether such a scenario has any validity at all beyond English.²⁰ Yet the theory is consistent with a realizational approach to morphology in which it is postsyntactic and dependent on the input from the syntactic derivation: there is no need for morphology to reflect underlying syntactic structures, though it may do (see Bobaljik 2002), and morphology may still have an important role to play in the process of syntactic acquisition (see Koenenman & Zeijlstra 2014). The novelty of the theory presented here lies in the fact that it links the changes in verb movement in late ME and Modern English not to subject-verb agreement, but to independently motivated contemporaneous syntactic changes in the domains of mood and aspect.

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²⁰ I do not discuss the development of *do*-support, the other major change traditionally linked with the loss of V-to-I movement in English (Roberts 1985, 1993, Kroch 1989). A two-step account for the rise of *do*-support, with *do* occupying an intermediate position below the IP and above VP, is presented in Ecay (2015), but how well this ties in with the scenario proposed here remains to be seen.

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