

ARTICLE

On the Rich Agreement Hypothesis and varieties of embedded V2

Hans-Martin Gärtner

Research Institute for Linguistics, Hungarian Academy of Sciences, Benczúr utca 33, 1068 Budapest, Hungary

Email for correspondence: gaertner@nytud.mta.hu

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Abstract

This paper addresses the controversy between Koenenman & Zeijlstra (K&Z) (2014) and Heycock & Sundquist (2017) concerning the viability of K&Z's strong version of the RICH AGREEMENT HYPOTHESIS in the light of apparent counterexamples from the diachrony of Danish. It makes the general point that establishing whether or not cases of putative V-to-I movement in subordinate clauses can be reanalyzed as V-to-C, i.e. as EMBEDDED VERB SECOND (EV2), depends on the EV2-TYPE of a language. The empirical discussion concerns appositive relatives and conditional protases, with V-to-C in the former being in principle compatible with 'narrow' *nEV2* as displayed by Modern Mainland Scandinavian languages, and V-to-C in the latter with Old Norse-style 'broad' *bEV2*. It is concluded that the critical stages of Danish need to be scrutinized more closely before the above dispute can be settled.

Keywords: appositive relatives; assertion; conditionals; embedded Verb Second; rich agreement; V-to-I

1. Overview

Koenenman & Zeijlstra (henceforth K&Z) (2014) 'rehabilitate' the RICH AGREEMENT HYPOTHESIS along with its familiar diachronic prediction that loss of rich agreement triggers loss of V-to-I. In a critique of this approach, Heycock & Sundquist (henceforth H&S) (2017) argue that K&Z fail to give a satisfactory account of the protracted time lag between these two processes in the history of Danish. H&S point out that reanalysis of 'unexpected' putative V-to-I as V-to-C, i.e. 'embedded V2' (EV2) – the mechanism K&Z propose to deal with such cases – is in conflict with the seemingly frequent occurrence of V-to-I in non-EV2-contexts during the critical historical stage(s) of Danish, as documented by Sundquist (2002, 2003).

In this paper, I argue that H&S's conclusion may be premature, given that characterizations of the core diagnostic 'EV2-hostile' environments differ when distinct varieties of EV2 are taken into account. In particular, 'narrow' EV2 (*nEV2*), as familiar from the modern Mainland Scandinavian languages, confines EV2 to roughly speaking 'assertion-friendly' contexts, while 'broad' EV2 (*bEV2*), reported for certain varieties of Modern Icelandic and for Old Norse, has a wider distribution.

A selective look at examples from Early Modern Danish that Sundquist (2002, 2003) categorizes as showing *bona fide* V-to-I reveals complications with both non-restrictive relatives and conditional clauses: The former arguably count as ‘EV2-friendly’ environments even within an *nEV2* system and the latter do so within *bEV2*, at least in Old Norse. Given evidence that Middle Danish possesses *bEV2* (Vikner 1995), this paper must be taken as an appeal to revisit the historical facts from Early Modern Danish with an eye on its EV2-TYPE. The larger agenda promoted here concerns developing a better documentation and understanding of *bEV2*, which will make it possible to assess proposals like K&Z’s V-to-C reanalysis of V-to-I on firmer and independent theoretical grounds.

2. Rich agreement and V-to-I

At least since the publication of works by I. Roberts (1985), Kosmeijer (1986), Platzack & Holmberg (1989), and Rohrbacher (1994), richness of subject–verb agreement has been hypothesized to correlate with the presence vs. absence of syntactic V-to-I movement, i.e. movement of the verbal head of VP to the (abstract) head of IP. Among the core examples for this belongs the contrast between Modern Icelandic and Modern Mainland Scandinavian, here represented by Modern Swedish: The former, possessing ‘rich’ agreement as shown in Table 1, requires V-to-I movement, (1a)/(1b).¹ The latter, lacking rich agreement as illustrated in Table 2, disallows V-to-I movement, (1c)/(1d).

Table 1. Modern Icelandic agreement.

<i>seg-ja</i> 'say'	SG	PL	<i>i</i> → [+SPEAKER],[−PLURAL]
1st	<i>seg-i</i>	<i>seg-jum</i>	<i>jum</i> → [+SPEAKER],[+PLURAL]
2nd	<i>seg-ir</i>	<i>seg-ið</i>	<i>ir</i> → [−SPEAKER],[−PLURAL]
3rd	<i>seg-ir</i>	<i>seg-ja</i>	<i>ið</i> → [−SPEAKER],[+PARTICIPANT],[+PLURAL] <i>ja</i> → [−PARTICIPANT],[+PLURAL]

Table 2. Modern Swedish agreement.

<i>säg-a</i> 'say'	SG	PL	
1st	<i>säg-er</i>	<i>säg-er</i>	<i>er</i> → [+FINITE]
2nd	<i>säg-er</i>	<i>säg-er</i>	
3rd	<i>säg-er</i>	<i>säg-er</i>	

- (1) a. ... hver stelpa [_{CP} sem [_{IP} Haraldur gaf_i [_{VP} ekki [_{VP} t_i bókina]]]]
- b. *... hver stelpa [_{CP} sem [_{IP} Haraldur [_{VP} ekki [_{VP} gaf bókina]]]]
- c. *... varje flicka [_{CP} som [_{IP} Harald gav_i [_{VP} inte [_{VP} t_i boken]]]]
- d. ... varje flicka [_{CP} som [_{IP} Harald [_{VP} inte [_{VP} gav boken]]]]
- ‘each girl who Harald didn’t give the book (to)’

As can be seen in (1), the canonical syntactic diagnostic for V-to-I involves ordering of the finite verb relative to sentential negation within certain types of subordinate clauses. Determining the exact clausal environments involved is what this paper is about and I will come back to the matter momentarily.

The question as to how richness of verbal agreement should be characterized has been studied intensively (see e.g. Vikner 1997). Since precise detail is not crucial here, I present the relevant facts in the format provided by K&Z (2014:576), whose approach to V-to-I will take center stage below. K&Z's theory boils down to counting agreement as rich when a threshold of three person and two number values is reached. Thus, Modern Icelandic distinguishes [+SPEAKER] ('1st person'), [-SPEAKER][+PARTICIPANT] ('2nd person'), and [-PARTICIPANT] ('3rd person') in the person dimension, as well as [+PLURAL] and [-PLURAL] in the number dimension. Modern Swedish, on the other hand, doesn't make any such distinction and therefore misses the threshold for rich agreement. On the basis of this, K&Z (2014:576) state a version of the RICH AGREEMENT HYPOTHESIS (RAH), which can be formulated as follows.^{2,3}

(2) *The Rich Agreement Hypothesis* (simplified)

Language *L* exhibits V-to-I movement if and only if *L* possesses rich verbal agreement.

The formulation in (2) itself, of course, is not new. Close variants of (2) have been stated and been the subject of thorough debate over the years. In particular, as acknowledged by K&Z, empirical evidence challenging both directions of (2) has been brought up: 'language varieties that are poorly inflected but still display V-to-I movement (e.g. Jonas 1995 for Faroese, . . . Bentzen et al. 2007 for Regional Northern Norwegian varieties), as well as varieties that do not display obligatory V-to-I movement despite being richly inflected (e.g. Garbacz 2010 for Älvdalen Swedish)' (K&Z 2014:571). As a consequence, the suggestion has been made to abandon the RAH entirely (Wiklund et al. 2007),⁴ or at least weaken it from a biconditional ('if and only if') to a conditional ('if'), such that rich agreement entails V-to-I but not vice versa (see e.g. Bobaljik & Thráinsson 1998). It is therefore of high interest that – in full reversal of the above trend – K&Z propose to 'rehabilitate' the RAH and reinstall it 'in its strongest, bidirectional form' (K&Z 2014:572). This involves demonstrating ways in which challenges to the RAH can be met, and, importantly, some of the most intricate issues here concern the diachronic development of the Scandinavian languages. They are going to be focused on in the following discussion, which I hope will contribute to a deeper understanding of the 'diachronic consequences' of the RAH.

3. The RAH and diachrony

Let me begin by citing K&Z (2014:577), who themselves note that

[t]he RAH also predicts that changes in the verbal syntax and changes in the verbal paradigm should be closely related: morphological deflection should trigger the loss of V-to-I movement. This prediction is borne out. Take, for instance, Old Swedish . . . and Middle English[.] Both are richly inflected[.] Both display V-to-I movement, as expected[.]

At the same time, they address one of the major and most interesting challenges to the RAH (K&Z 2014:606; see Vikner 1997:Section 4.3):

it has been observed, as a critique of the RAH, that there can be a significant time gap between the loss of the relevant agreement inflection and the loss of V-to-I ... movement.

The authors (K&Z 2014:606)⁵ suggest that

such time gaps are not at all problematic, however, since the input in those stages is still paradoxical, containing both input for a poor agreement paradigm and evidence for V-to-[I] movement.

More concretely, the idea is that the ‘paradox’ will be resolved by standard mechanisms of language acquisition, the one of interest here being based on the assumption that ‘the learner can ... take the word order as primary’ (K&Z 2014:607). K&Z claim that this is what happened in Faroese, where, as a consequence, ‘learners reanalyzed V-to-[I] movement as embedded V-to-C movement’ (p. 607). This proposal, of course, rests on the well-known fact (see e.g. Holmberg 1986:112) that, in languages with ‘medial’ I^o, standard cases of *bona fide* V-to-I, as seen in (3a), and subject-initial ‘embedded V2’ (EV2) clauses,⁶ seen in (3b), are string-identical.⁷

- (3) a. ... [IP SU V_{fin} [VP NEG/ADV [VP ... t_V ...
 b. ... [CP SU V_{fin} [IP t_{SU} t_V’ [VP NEG/ADV [VP ... t_V ...

In a recent critique of K&Z (2014), H&S (2017:175 fn. 1) rightly point out that ‘the evidence for this reanalysis in Faroese is largely circumstantial, given the gap in the documentary evidence for Faroese between the medieval period and the late 18th century’. Thus, to make a better case for a reanalysis of V-to-I as EV2, one has to tackle more thoroughly documented cases, such as Danish and Swedish. The former is directly addressed by H&S (2017:173–174):⁸

Sundquist (2002; 2003) shows that while by 1350 there was at most a singular/plural distinction encoded in the verbal morphology of Middle Danish, V-to-I is still evidenced robustly in the data for more than two centuries after that date. In texts from the first half of the 16th century – two hundred years after the morphology has become ‘poor’ by the definition in K&Z – V-to-I appears at a rate of 42%. In fact, even in ... the second half of the 17th century, it still occurs at a rate of above 10% (Sundquist 2003, p. 242).

And, importantly, H&S (2017:175) directly dismiss the option of V-to-C reanalysis, stating that ‘[t]his explanation for the persistence of V–Neg/Adv orders in Danish was ... already ruled out in Sundquist (2002; 2003)’.

4. Varieties of EV2

Although I think that the point H&S (2017) make is largely valid, I will argue that certain difficulties in teasing apart EV2 and V-to-I may blur their results and make arguments against K&Z’s proposal less conclusive.

To begin with, it is clear that in order to rule out V-to-C reanalysis one needs to find instances of *bona fide* V-to-I. In the core case, this requires identifying environments where pattern (3a) above occurs but pattern (3b) is blocked. Let us call such environments ‘EV2-hostile’. The latter are standardly characterized *ex negativo*, i.e. via providing criteria for ‘EV2-friendly’ environments. However, two things stand in the way of making this an easy task. First, there is so far no fully satisfactory theory of the distribution of EV2. And, second, it is clear that the boundary between EV2-hostile and EV2-friendly environments can shift both across languages and diachronically. The interdependence of these issues makes it necessary to address them together.

4.1 Narrow vs. broad EV2

At least for the modern Mainland Scandinavian languages, a fairly solid characterization of EV2-friendly environments can build on work by, among others, Andersson (1975) and Wechsler (1991) and identify them – as long as we are dealing with declarative clauses – with ‘assertion-friendly’ environments. This means that the content of the V2-clause counts as something the speaker actively commits to and as intended to enrich the common ground (see e.g. Wiklund 2010:87). In addition, provisos have to be made to include ‘derivative’ (or ‘shifted’) uses of EV2 in speech and thought representation.⁹

Now, as is well-known, there are varieties of Modern Icelandic where EV2 shows a broader distribution, as exemplified in (4b) (Rögnvaldsson & Thráinsson 1990:23) and contrasted with Modern Swedish, (4a) (see Hrafnbjargarson & Wiklund 2009:33).

- (4) a. *Johan tvivlar på [_{CP} att [_{CP} i morgon skall [_{IP} Maria gå upp tidigt]]].
 b. Jón efast um [_{CP} að [_{CP} á morgun fari [_{IP} María snemma á fætur]]].
 ‘John doubts that Mary will get up early tomorrow.’

Clearly, given the meaning of ‘to doubt’, Mary’s getting up early on the next day is nothing the speaker commits to (via an utterance of (4)), nor does it correspond to the content of John’s thought (or speech). Yet, EV2 is possible in Icelandic here, instantiated by non-subject-initial V2, the hallmark of *bona fide* V-to-C. Let us call the distribution of EV2 where EV2-friendly and ‘assertion-friendly’ environments coincide ‘narrow EV2’ (*nEV2*) and the extended one displayed by certain varieties of Modern Icelandic ‘broad EV2’ (*bEV2*).¹⁰

From these brief and sketchy considerations we can already see that the adequacy of K&Z-style V-to-C reanalysis of V-to-I depends on the EV2-type – *nEV2* or *bEV2* – of the language(s) in question. This is what will be addressed next.

5. V-to-C reanalysis

Sundquist’s crucial observation, on which H&S build their assessment that V-to-C reanalysis of V-to-I is excluded for Danish, concerns the absence of any drop in ‘frequency of V–Neg/Adv orders’ in EV2-hostile environments. However, the method of identifying such environments is neither very elaborate (see Garbacz,

Håkansson & Rosenkvist 2007) nor does it take into account the difference between *nEV2* and *bEV2*. As summarized by H&S (2017:175),

[i]n order to control for the possibility that the high position for the verb in his data was due to EV2 rather than V-to-I, Sundquist isolated the cases that did not occur in an embedded declarative (operationalized as a clause introduced by the complementizer *at* ‘that’).

[EV2] is excluded – or at best highly disfavored – in relative clauses, indirect questions, and most types of adverbial clauses[.]

Now, among the clause types actually presented by Sundquist (2002, 2003) as displaying *bona fide* V-to-I, relatives and conditionals figure prominently. Let us discuss each type in turn.

5.1 Relative clauses

Quite strikingly, the two instances of relative clauses that Sundquist (2002:298) provides as evidence for Early Modern Danish V-to-I are both non-restrictive or ‘appositive’. They are presented in boldface with their fuller contexts in (5) and (6).¹¹

- (5) Jeg erindrer mig om de dejlige Lunde ved Ketting,
I remember me about the beautiful groves near Ketting
hwor jeg gick altid och spatzerede, hwor jeg brød min Arm
where I went always and walked where I broke my arm
 och falt ...
and fell from horse.the
 ‘I remember the beautiful groves near Ketting, where I always went walking, where I broke my arm and fell off the horse ...’

- (6) Udj hindis lidet Cammer, som waar inden for dend Stue,
out.in her small chamber REL was inside of that living.room
 hindis s. Moder laae i, och **Som Jomfru Helle Lyche waar altid hoß**,
her late mother lay in and REL Miss Helle Lyche was always with
 passerede jeg heele Effermiddagene.
spent I all afternoons.the
 ‘In her small chamber, which was next to the living room her late mother lay in, who Miss Helle Lyche was always with, I passed all afternoons.’

That the author always went for walks there, in (5), and that Miss Helle Lyche always was with her, in (6), is additional information about independently established referents: the beautiful groves near Ketting in (5), and Miss Helle Lyche’s late mother in (6). This information meets the criteria for assertion in being

actively committed to by the speaker/author and intended to enrich the common ground. Consequently, appositive relative clauses (ARCs) would have to be considered EV2-friendly environments even in (the more limited) *nEV2* systems (Section 4.1).¹² Further empirical evidence for this comes, among other things, from the ease with which speech act sensitive items like modal particles and the performative marker *hereby* can be inserted into ARCs (see Andersson 1975:69, 74 for Swedish, and Reis 2006:Section 3.1 for German). What is more, Modern English, which can be considered to possess ‘residual’ *nEV2*, allows subject–auxiliary inversion (SAI) – standardly analyzed as (non-subject-initial) V-to-C – in ARCs (Hooper & Thompson 1973:472):

(7) Hal, **who under no circumstances would I trust**, asked for a key to the vault.

Thus, further technicalities aside,¹³ a V-to-C analysis of the putative V-to-I cases in (5) and (6) may have to be envisaged:

- (8) a. [_{CP} hwor_k ∅ [_{CP} jeg_j gich_i [_{IP} t_j t_i' [_{VP} alltid [_{VP} t_i t_k]]]]]
 b. [_{CP} Op_k som [_{CP} Jomfru Helle Lyche_j waar_i [_{IP} t_j t_i' [_{VP} alltid [_{VP} t_i hoß t_k]]]]]

The case against K&Z's proposal of V-to-C reanalysis would therefore be strengthened by minimizing reliance on ARCs as evidence.

Two caveats are in order here. One concerning ARCs in general, the other regarding (5) and (6) in particular. As for the former, ARCs in full-fledged modern Germanic V2-languages differ from their Modern English counterparts in (7) in disallowing EV2. (9) illustrates this for the direct translation of (7) into German.¹⁴

- (9) *Hal, **dem unter keinen Umständen würde ich vertrauen**, fragte nach einem Schlüssel zum Keller.

The discrepancy between apparent EV2-hostility and existence of the earlier mentioned markers of ‘assertion-friendliness’ is one of the main points raised by Reis (2006) against simplistic assertion-based definitions of EV2-friendly environments for *nEV2*-languages. The same tension is also indirectly noted by Andersson (1975:69), who points out the necessity of finite verbs in Modern Swedish to follow modal particles like *ju* ‘as you know, obviously’ – analyzed as instantiating VP-attached ADV in (3) – in ARCs.¹⁵

- (10) Igår träffade jag Eva, som du (ju) känner (*ju) bättre än jag.
 ‘Yesterday I met Eva, who you (obviously) know better than I.’

If these facts are taken as default property of *nEV2*-systems, an alternative characterization of EV2-friendly environments has to be found for such systems that excludes ARCs.¹⁶ Thus, if H&S's critique of K&Z is to eventually be put on a principled basis, a simple case by case listing of EV2-hostile clause types is unsatisfactory.

The second caveat concerns the diagnostic status of *alltid* ‘always’, which occurs in both (5) and (6). Falk (1993:171–172) provides evidence from earlier varieties of Swedish that adverbs differ from sentential negation in allowing lower attachment

inside VP.¹⁷ (5) and (6) might therefore instantiate an alternative to the patterns in (3), shown in (11), with short verb movement within a layered vP/VP:

- (11) ... [_{IP} SU I° [_{vP} t_{SU} V_{fin} [_{VP} ADV [_{VP} ... t_V ...

This is what K&Z (2014:586) propose to meet related putative challenges from Regional Northern Norwegian and Kronoby Swedish to the RAH (see Wiklund et al. 2007). Crucially, V_{fin}>ADV-orders of this kind are no reliable indicator of V-to-I and thus the question of violating the RAH would not arise for (5)/(6) independently of EV2 reanalyzability.¹⁸

5.2 Conditional clauses

Consider the conditional (protasis), in boldface in (12), offered by Sundquist (2002:297) as another instance of V-to-I in Early Modern Danish.

- (12) her Per vell mett ted snarest selff drage tyl k.m.,
Mr. Per wants with the soonest himself go to Royal.Majesty
om vy for icke de suar, oss behaffwer
if we get not those answers us please
 ‘Mr. Per wants to go to His Royal Majesty as soon as possible himself,
 if we don’t receive the answers we desire.’

That the author and her husband receive the answers they desire is not asserted here. Nor is it a ‘premise’ in the sense of Haegeman (2003), who shows that ‘premise conditionals’ may host ‘main clause phenomena’ in English.¹⁹ Thus, if Early Modern Danish possesses *nEV2*, the conditional in (12) constitutes an EV2-hostile environment and a V-to-I analysis is indeed called for.

However, importantly, conditionals belong among the evidence in favor of taking older stages of Scandinavian to possess *bEV2*. This is exemplified for Old Icelandic in (13).²⁰

- (13) Dalla kvað mannamun mikinn og þó eigi víst
Dalla said difference.of.men great and even not certain
 að til yndis yrði **ef þetta vissi Þorkell í Tungu**
that to happiness would.become if that knew Thorkel in Tunga
 ‘Dalla said there was a mighty great difference betwixt them, and it was far from certain to end happily if Thorkel of Tunga got to know.’

Again, we can assume to be dealing with a standard ‘hypothetical’ conditional, which renders this an EV2-hostile environment under *nEV2*. The possibility of non-subject-initial EV2 in (13) thus indicates the kind of extension of EV2-friendly environments characteristic of *bEV2*. By contrast, the unacceptability of counterparts of (13) in Modern Danish (Vikner 1995:160) conforms to the standard assumption that the modern Mainland Scandinavian languages have *nEV2*.²¹

We can infer from this very brief look at conditionals that examples like (13) only constitute evidence against K&Z’s V-to-C reanalysis proposal for Danish if Early

Modern Danish can be assumed to be an *nEV2* system like Modern Danish, rather than a *bEV2* system. That this is not *a priori* clear is suggested by observations about Middle Danish, the immediately preceding historical stage, at which according to H&S agreement already counts as poor by the standards of the RAH (see Sections 2 and 3 above). Thus, the following Middle Danish counterpart of (13), i.e. a hypothetical conditional displaying the critical pattern in (3) has been presented by Bentzen & Hróarsdóttir (2009:128; citing Hrafnbjargarson 2004:212).²²

- (14) **vm min man hafvir inkte rætfongit gooz** hwat skal
if my man has not rightly.received goods what shall
 iac æda ællas drikkia
I eat or drink
 ‘If my husband doesn’t have rightfully acquired goods, what shall I eat or drink?’

At the same time, on the basis of the *som*-equative in (15), Middle Danish has been argued by Vikner (1995:160) to display *bEV2*.²³

- (15) **hans low skal een suygæ thøm, saa som nu giør Iødernæ low**
his law shall yet fail them so as now does Jews.the.GEN law
 ‘His [= Mohammed’s] law shall fail them, as does the Jews’ law now.’

It has to be stressed, though, that what we have here is only ‘circumstantial evidence’. A more thorough reassessment of Early Modern Danish EV2 is required for establishing its EV2-type.

5.3 V-to-C reanalysis and EV2-types

Abstractly, the situation can be summarized as follows. Assume that a language possesses V-to-I in all ‘embedded’ clause types. As depicted in Figure 1, V-to-C reanalysis, which in the core case means transition from structures like (3a) to structures of type (3b) (Section 3), implies avoidance of EV2-hostile environments (here marked as shaded areas).

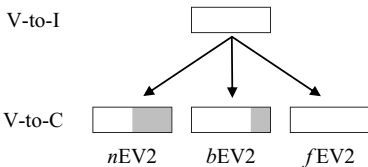


Figure 1. V-to-C reanalysis and EV2-types.

The distributional consequences of this avoidance, however, depend on the EV2-type of the language at the stage of the reanalysis. If the language possesses ‘free EV2’ (*fEV2*), i.e. a (hypothetical) type where all environments are EV2-friendly, there would be no observable consequences. The strings

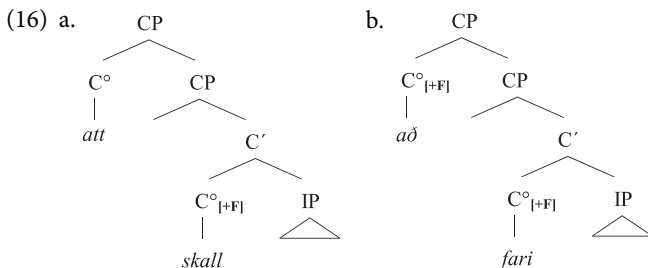
representing pattern (3) above would continue to occur in all embedded environments. If, by contrast, we are dealing with an *nEV2* system, such strings will be confined to ‘assertion-friendly’ environments. Finally, under *bEV2* we end up somewhere in between. The *EV2*-friendly region is expanded without constituting an ‘anything goes’. Thus, to repeat, in order to settle the case for or against K&Z’s V-to-C reanalysis of V-to-I, one needs to establish the *EV2*-type of the language in question at the historical stage the reanalysis is supposedly taking place.

6. Broad *EV2*

From the discussion so far we can conclude that an important step toward a defense of K&Z’s V-to-C reanalysis approach would consist in showing that Danish was a *bEV2* system at the stage(s) where putative V-to-I configurations continued to occur in the absence of rich verbal agreement. If that were possible, a follow-up step would have to consist in arguing on independent theoretical grounds that V-to-C is the correct analysis in all of the controversial cases. However, given (i) the doubly negative characterization of *bEV2* – broader than *nEV2* but narrower than *fEV2* – and (ii) the still only partially understood nature of *nEV2* (Section 4.1), it may be difficult to make any further progress fast. Since it is impossible to do justice to the intricacies of this within the confines of the present paper, I’ll leave the topic for further research. Instead, I’ll conclude by briefly revisiting an approach to *bEV2* that links it back to the RAH.

6.1 Broad *EV2* and rich agreement

Holmberg & Platzack (1995:Sections 3.4.3–3.4.6) analyze *EV2* in terms of ‘CP-recursion’ (see e.g. Vikner 1995, and Vikner 2017a for recent revisions), where the difference between *nEV2* in modern Mainland Scandinavian and *bEV2* in Modern Icelandic and Old Norse hinges on the absence vs. presence of an additional finiteness feature [+F] on the outer *C*^o (p. 84). This is schematically shown in (16a)/(16b), corresponding to the relevant parts of (4a)/(4b), respectively.



Crucially, the additional [+F] is licensed ‘only in a language with nominative Agr’ (p. 84), that is, a language with rich verbal agreement. Secondly, lexicalization of [+F] by the finite verb is assumed to trigger ‘main clause interpretation’ (p. 86), which confines the *EV2*-clauses in question to ‘assertion-friendly’ environments. This is what enforces *nEV2* for languages lacking rich agreement like Swedish, as exemplified

in (16a)/(4a). Lexicalization of [+F] by a complementizer results in a standard subordinate clause, compatible with whatever semantics subordination requires. Where both types of lexicalization cooccur as in (16b), the outer specification wins out and ‘main clause interpretation’ triggered by V-to-C is suspended (p. 86). This allows EV2-clauses in languages with rich agreement like Icelandic, (16b)/(4b), to behave like ordinary subordinate clauses, which is the basis for *bEV2*.

Turning to the diachronic consequences of the above account, we can notice that the RAH becomes part of a larger ‘conspiracy’. Loss of rich agreement not only results in loss of V-to-I (see also Holmberg & Platzack 1995:77) but in addition it comes with a switch from *bEV2* to *nEV2*, as summarized in (17).

- (17) rich agreement & V-to-I & *bEV2*
 ↓
 poor agreement & V-*in-situ* & *nEV2*

This immediately predicts that K&Z’s V-to-C reanalysis of putative ‘late’ V-to-I should occur in an *nEV2* context. Thus, the strategy of accounting for verb positioning in, for example, conditionals like (12) by postulating the relevant historical stage of the language to display *bEV2* would no longer work.

However, the close link in (17) is dubious for the simple reason that – as already hinted at in Section 4.1 – in Modern Icelandic *bEV2* is found only in certain varieties. On the whole, Modern Icelandic shows variation between *bEV2* and *nEV2* (Jónsson 1996:39). At the same time, all varieties of Modern Icelandic continue to possess both rich agreement and V-to-I. Likewise, the combination of poor agreement and *bEV2* may exist in some varieties of Modern Norwegian, where, according to the survey by Bentzen (2014a), counterparts of (4b) were found acceptable. Similarly, the combination seems to show up in Middle Danish, as indicated at the end of Section 5.2 above.²⁴

7. Conclusion

As part of their ‘rehabilitation’ of the Rich Agreement Hypothesis, Koenenman & Zeijlstra (K&Z) (2014) subscribe to a close diachronic correlation between loss of rich agreement and loss of V-to-I. They propose to meet the familiar challenge of a protracted time lag between loss of agreement and loss of V-to-I (see e.g. Vikner 1997) by a number of reanalysis mechanisms, reanalysis of V-to-I as V-to-C, i.e. as ‘embedded V2’ (EV2), being the one focused on here. In a critique of K&Z’s approach, Heycock & Sundquist (H&S) (2017) point out that V-to-C reanalysis is not an option in the case of Danish, for which Sundquist (2002, 2003) expressly sought to identify instances of V-to-I in non-EV2 environments at the relevant historical stage(s).

In this short paper, I have argued that settling the case for or against V-to-C reanalysis requires carefully taking into account the ‘EV2-type’ of the languages under investigation. In particular, the familiar ‘narrower’ distribution of EV2 (*nEV2*) in modern Mainland Scandinavian – confined to, roughly speaking, ‘assertion-friendly’ environments – is known to contrast with a ‘broader’ distribution (*bEV2*) in certain varieties of Modern Icelandic and Old Norse. As a consequence, the borderline between ‘EV2-hostile’ and ‘EV2-friendly’ environments varies.

By way of illustration, I have raised concerns about some examples from Early Modern Danish that Sundquist (2002, 2003) classifies as *bona fide* V-to-I. First, among relative clauses, non-restrictives must be handled with care, since, encoding ‘secondary’ assertions, they would constitute EV2-friendly environments even within the more limited *n*EV2-type.²⁵ Second, ‘hypothetical’ conditionals, which must be considered EV2-hostile under *n*EV2, have been shown to constitute EV2-friendly environments in (Old Norse) *b*EV2. Thus, putative V-to-I in such conditionals would resist K&Z-style V-to-C reanalysis only if the historical stage of the language in question counts as *n*EV2. This may not hold for Middle Danish, where evidence for *b*EV2 has been provided. The EV2-type of Early Modern Danish needs to be investigated.

Let me stress that I’ve chosen to focus on cases problematic for H&S in order to make a methodological point about the importance of distinguishing EV2-types.²⁶ Thus, even if it can be shown that both Middle Danish and Early Modern Danish possess *b*EV2, V-to-C reanalysis of the entire set of putative V-to-I cases in those languages will have to be argued to be the correct approach on independent theoretical grounds. What is more, given the doubly negative characterization of *b*EV2 – broader than *n*EV2 but narrower than an entirely unconstrained ‘free’ EV2 (*f*EV2) – and the still only partially understood nature of ‘assertion-friendly’ environments as basis for *n*EV2 (Section 4.1), no firm conclusions about the controversy can be drawn. Instead, a much more careful study of (varieties of) EV2 in the history of Scandinavian seems to be called for.

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Notes

1 String-identical versions of (1b) are acceptable where *ekki* ‘not’ is contrastively stressed (see Angantýsson 2007:239 fn. 2). This may be analyzed in accordance with (1a) by placing *ekki* in a higher structural position (see Angantýsson 2007:252). For relevant further discussion, see also Sigurðsson (1986), Bobaljik & Thráinsson (1998), and Thráinsson (2010).

2 K&Z (2014:574) link their notion of ‘richness’ of agreement to the ‘featural distinctions . . . manifested in the smallest (subject) pronoun inventories universally possible’. This is criticized by Harbour (2015), who demonstrates the existence of more impoverished pronominal systems. In a reply, Tvica (2017) shows how the 3-person/2-number threshold reemerges under a congenial extension of K&Z’s approach. I have ‘simplified’ the formulation of the RAH in (2) by leaving out reference to the exact construal of richness. Thanks to Erik Petzell, who made me aware of the above complications.

3 K&Z (2014:605) formulate a generalization of the RAH to accommodate (I°-final) OV languages. The version in (2) is sufficiently precise for the purposes of this paper.

4 Wiklund et al. (2007:216) explicitly do not exclude correlations between rich agreement and verb placement involving the CP-layer instead of IP.

5 K&Z (2014:Section 4) adopt a particular approach to argument licensing, which involves recategorizing IP as ArgP. The exact nature of this approach is inconsequential for the present study, so K&Z's 'V-to-Arg' is consistently changed back to 'V-to-I'.

6 A more general term such as 'dependent V2' may actually be more adequate, if one wants to explicitly avoid prejudging the issue of how exactly V2-clauses attach to their host clauses (see e.g. Reis 1997, de Haan 2001).

7 There are several ways of (potentially) teasing apart these structures. Let me mention the following four: (i) Configuration (3b) triggers island effects for long extraction in Modern Swedish (Holmberg 1986:111), so if extractions from clauses showing the word order pattern in (3) exist, this could be counted as indirect evidence for V-to-I, (3a). (ii) 'Left-edge boundary tones' have been found to function as prosodic cues for main clause status in Modern Swedish structures of type (5b) (Roll 2006, Roll, Horne & Lindgren 2009). (iii) Julien (2015:140) has shown that in Modern Norwegian configurations like (3b), indexicals may behave as if the CP were encoding direct speech. (iv) To the extent that adjunction to I' and IP differs from adjunction to C' and CP, items like (higher) sentence adverbials may be used to distinguish between (3a) and (3b) (see e.g. Sigurðsson 1986).

8 For Swedish, see Falk (1993).

9 Standard examples are complements of verbs of saying and belief as well as adverbial clauses introduced by (counterparts of) *because*, *although*, and (adversative) *while* (see Wechsler 1991:Sections 1.2-1.3). In the scope of operators like negation, modals, and (non-declarative) sentence mood, EV2-friendly environments can turn into EV2-hostile ones. The strengths and weaknesses of the 'assertion approach' have recently been discussed by, among others, Wiklund et al. 2009; Gärtner & Michaelis 2010, 2019; and Julien 2015.

10 Vikner (1995:Chapter 4) uses the terms 'limited embedded V2' and 'general embedded V2', where the latter has led to some misunderstanding (see e.g. Hrafnbjargarson & Wiklund 2009:22). Although the variation within Modern Icelandic has been further confirmed empirically (Angantýsson 2011), it is doubtful whether a simple dichotomy of two 'dialects', one displaying *bEV2*, the other *nEV2*, as originally suggested by Jónsson (1996:39), is correct (Hrafnbjargarson & Wiklund 2009, Thráinsson 2011).

11 The exact sources are specified by Sundquist (2002:Appendix A). I have sometimes provided fuller contexts where missing, basing myself on the original sources cited.

12 Note that the acts performed via ARCs differ from standard assertions in being 'secondary' (Chierchia & McConnell-Ginet 1990:282). According to Koev (2013:6), 'appositive proposals [to update the common ground – HMG] are usually decided before main clause proposals'. Like presuppositions, they therefore differ from primary assertions in being inaccessible to direct challenging by expressions like *No* or *That's false* (see Syrett & Koev 2015, for possible reversals of these priorities in the case of ARCs in sentence-final position). Importantly, though, ARC-based secondary assertions, such as in (ia), share the 'non-triviality' (or 'informativity') requirement of standard assertions (see Potts 2005:34; Schlenker 2018:8), unlike presuppositions, such as seen in (ib).

(i) Lance Armstrong survived cancer.

a. #When reporters interview Lance, **who is a cancer survivor**, he often talks about the disease.

b. And most riders know **that Lance Armstrong is a cancer survivor**.

Thanks to an anonymous reviewer for requesting clarification of these issues.

13 Locality conditions (see e.g. Rizzi 2001) have to be taken into consideration. These concern the status of relative operators in ARCs, the ability of fronted subjects to create 'topic islands', and the question of how the two interact. I refrain from going into such matters any further.

14 Such conjunction-less relatives involving 'd-pronouns' allow an alternative variant of (E)V2 without CP-recursion. The example in (i) presents the relevant counterpart of (9).

(i) Hal - dem würde ich unter keinen Umständen vertrauen - fragte nach einem Schlüssel zum Keller.

The result actually is acceptable but it constitutes a clear case of parenthesis. A prosodically integrated variety of German relative-like V2-clauses has been discussed by Gärtner (2001). Although the latter clearly require 'assertion-friendly' environments, their distribution differs in striking ways from the one of standard ARCs and the parentheticals in (i).

15 For the ban on non-subject-initial EV2 in ARCs, see Andersson (1975:221 fn. 10). Bentzen (2014b) provides a brief survey, without, however, distinguishing ARCs from restrictive relatives.

16 Antomo (2016) makes the interesting proposal that the EV2-hostility of ARCs correlates with their (putative) failure to convey ‘at-issue’ content, definable in terms of being relevant to the/a current ‘question under discussion’ (C. Roberts 1996). This is closely related to the approach by Wiklund et al. (2009) requiring V2-clauses to be able to carry the ‘main point of utterance’ (MPU). However, these theories face considerable empirical challenges (see Julien 2015, Djärv, Heycock & Rohde 2017). Also, providing a formally sound definition of at-issueness that covers sufficiently many clausal environments has proven difficult. The technicalities of this are addressed by Gärtner & Michaelis (2019).

17 Thanks to the editors for making me aware of this.

18 Note that V-to-v movement creates the preconditions for vP-internal object shift (see e.g. Vikner 2017b). The many ramifications of this for the viability of the analysis in (11) remain to be explored.

19 Such conditionals typically introduce temporary commitments, ‘for the sake of argument’ (Haegeman 2003: Section 4.3), often signaled by features echoing previous utterances. At least in languages like German, ‘premise conditionals’ can also be used to signal full-fledged commitments (see e.g. Coniglio 2011:Section 4.2.4), with the speech act involved here consisting in ‘ascertaining’ (or conceding) a fact rather than asserting a proposition.

20 This example, cited from Netútgáfan (<https://www.snerpa.is/net/isl/kormaks.htm>), is from the early 13th century Kormáks Saga (Chapter 3), and the translation stems from Collingwood & Stefánsson (1902). Thanks to Eiríkur Rögnvaldsson for bringing the example to my attention.

21 Vikner (1995:160) uses the Old Norwegian example in (i), cited after Nygaard (1905:376) to illustrate *bEV2*.

- (i) Gjarna mundi hann hafa viljat drepa hann í fyrstu
gladly would he have wanted kill him at first
ef honum væri þat lofat
if him.DAT were it allowed
 ‘He would gladly have killed him right away if he had been allowed to do so.’

However, as pointed out to me by Jóhannes Gíslí Jónsson (p.c.), the conditional in (i) can be analyzed as involving a passive construction with *honum* in Spec,IP and a VP that displays OV-order.

22 Bentzen & Hróarsdóttir (2009:Section 5.1) use (i) from note 21 above as part of the evidence that ‘Old and Middle MSc had ... generalized embedded V2 with subject–verb inversion’ (p. 127), i.e. *bEV2*. Additionally, they diagnose V-to-I, which they term ‘Long non-V2 verb movement’ (p. 128), for the same group of languages. Curiously, however, offering (14) as evidence from Middle Danish, the authors maintain that this example is an instance of ‘[v]erb movement across negation and adverbs ... in non-V2 contexts’ (p. 128). Yet, for such an assumption to make sense, i.e. for the conditional in (14) to constitute an EV2-hostile environment, a tacit and illicit recategorization of Middle Danish from previously diagnosed *bEV2* to *nEV2* must have taken place.

23 A *som*-equative with fronted *nu* ‘now’ has also been used by Holmberg & Platzack (1995:86–87) to illustrate Old Swedish *bEV2*. Another instance is attested in Old Norse (Faarlund 2004:251). As pointed out to me by the editors, Falk (2007) argues that counterparts of (15) from older stages of Old Swedish could be due to a generalized form of ‘stylistic fronting’ (SF) (see e.g. Holmberg 2006). The generalization involves (i) allowing SF in the presence of full subjects, (ii) assuming that subjects are highest on the hierarchy of constituents undergoing SF, and (iii) allowing violations of that hierarchy so that non-subjects can precede subjects in a resulting XVS configuration. The author goes on to speculate that this may apply to the entire range of what is called *bEV2*-environments in the present study. Unfortunately, I cannot go into the complex ramifications of this interesting proposal here.

24 Hrafnbjargarson & Wiklund (2009:37–38) present a promising approach to the *nEV2* vs. *bEV2* distinction built on an articulated split CP (see Rizzi 1997) and independent of matters of verbal agreement. An alternative that relies on the influence of verbal mood is developed by Gärtner & Eyþórsson (2019).

25 A related point can be made with respect to the evidence for *bona fide* V-to-I in Middle English offered by K&Z (2014:578):

(i) Bycause they come not up and offer

Such adjunct clauses providing reasons – (i) answering the question *Why dryve men dogges out of the chyrche?* (I. Roberts 1993:247, 250) – are known to constitute EV2-friendly environments (see e.g. Andersson 1975:24).

26 The same point can actually be made with respect to the Yang-style grammar competition model (see Yang 2000) offered by Heycock & Wallenberg (2013), where EV2-friendly environments confer a competitive advantage to *V-in-situ* over *V-to-I* grammars (Heycock & Wallenberg 2013:136–137). As far as I can see, the difference between determining these environments within *bEV2* as opposed to *nEV2* lies in speeding up the loss of *V-to-I*. The exact consequences of this observation remain to be explored.

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