# A Note on the Rich Agreement Hypothesis and Varieties of "Embedded V2"

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Koeneman and Zeijlstra [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 and Sundquist [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 note, I argue that H&S's conclusion may be premature, given that characterizations of the core diagnostic "EV2-hostile" environments differ where distinct varieties of EV2 are taken into account. In particular, "narrow" EV2 [*n*EV2], as familiar from the modern Mainland Scandinavian languages, confines EV2 to roughly speaking "assertion-friendly" contexts, while "broad" EV2 [*b*EV2], 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 *n*EV2 system and the latter do so within *b*EV2, at least in Old Norse. Given evidence that Middle Danish possesses *b*EV2 (Vikner 1995), this note 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 *b*EV2, 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.

## 1.    Rich Agreement and V-to-I

Starting point for our discussion is the following statement of the "Rich Agreement Hypothesis" (RAH) by Koeneman and Zeijlstra [K&Z] (2014: 576):[1]

(1)    *The Rich Agreement Hypothesis*
A language exhibits V-to-I movement if and only if the regular paradigm manifests featural distinctions that are at least as rich as those featural distinctions manifested in the smallest pronoun inventories universally possible.

The featural characterization of "smallest pronoun inventories universally possible" requires three binary distinctions, as exemplified for Kuman personal pronouns in (2) (ibid., p.574):

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[1] K&Z (2014: 605) formulate a generalization of the RAH to accommodate (I°-final) OV languages. The version in (1) is sufficiently precise for the purposes of this paper.

(2) *Kuman* (Papua New Guinea)

|      | SG   | PL  | |
|------|------|-----|---|
| 1st  | *na* | *no* | *na* → [+SPEAKER],[−PLURAL] |
|      |      |      | *no* → [+SPEAKER],[+PLURAL] |
| 2nd  | *ene* |     | *ene* → [−SPEAKER],[+PARTICIPANT] |
| 3rd  | *ye*  |     | *ye* → [−SPEAKER],[−PARTICIPANT] |

The featural analysis of (the "regular paradigm" of ) verbal agreement in Modern Icelandic, (3), and Modern Swedish, (4), yields the result that the former language counts as richly inflected while the latter counts as poorly inflected in the sense of the RAH (ibid., p.575).

(3) *Modern Icelandic*

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

(4) *Modern Swedish*

| *säg-a* 'say' | SG | PL | |
|---|---|---|---|
| 1st | *säg-er* | *säg-er* | *er* → [+FINITE] |
| 2nd | *säg-er* | *säg-er* | |
| 3rd | *säg-er* | *säg-er* | |

These inflectional differences correspond to the familiar well-established presence vs. absence of V-to-I in Modern Icelandic, (5a), and Modern Swedish, (5b), respectively.[2]

(5)     a. ... *hver stelpa* [$_{CP}$ *sem* [$_{IP}$ *Haraldur gaf*$_i$ [$_{VP}$ *ekki* [$_{VP}$ t$_i$ *bókina* ]]]]
        b. ... *varje flicka* [$_{CP}$ *som* [$_{IP}$ *Harald* [$_{VP}$ *inte* [$_{VP}$ *gav boken* ]]]]
            'each girl who Harald didn't give the book (to)'

## 2.    The RAH and Diachrony

One of the main aims of the current discussion concerns contributing to a deeper understanding of the "diachronic consequences" of the RAH. To begin with, K&Z (2014: 578) 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 [...].

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[2] Pointers to the standard literature are provided by K&Z (2014).

At the same time, the authors address one of the major and most interesting challenges to the RAH (ibid., p.606; cf. Vikner 1997: 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/Arg movement.

They (ibid.) 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-Arg 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" (ibid., p.607). K&Z claim that this is what happened in Faroese, where, as a consequence, "learners reanalyzed V-to-Arg movement as embedded V-to-C movement" (ibid.). This proposal, of course, rests on the well-known fact (cf., e.g., Holmberg 1986: 112) that, in languages with "medial" I°, standard cases of *bona fide* V-to-I, (6a), and subject-initial "embedded V2" (EV2) clauses,[3] (6b), are string-identical.[4]

(6)   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), Heycock and Sundquist [H&S] (2017) 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):

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

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[3] 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 (cf., e.g., Reis 1997; de Haan 2001).

[4] There are several ways of (potentially) teasing apart these structures. Suffice it here to mention three: (i) Configuration (6b) triggers island effects for long extraction in Modern Swedish (Holmberg 1986: 111), so if extractions from clauses showing the word order pattern in (6) exist, this could be counted as indirect evidence for V-to-I, (6a). (ii) "Left-edge boundary tones" have been found to function as prosodic cues for main clause status in Modern Swedish structures of type (6b) (Roll 2006; Roll, Horne and Lindgren 2009). (iii) Julien (2015: 140) has shown that in Modern Norwegian configurations like (6b), indexicals may behave as if the CP were encoding direct speech.

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 is still occurring at a rate of above 10% (Sundquist 2003, p. 242).

And, importantly, H&S (2017) directly dismiss the option of V-to-C-reanalysis:

This explanation for the persistence of V-Neg/Adv orders in Danish was [...] already ruled out in Sundquist (2002; 2003).

## 3.     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 (6a) occurs but (6b) 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.

### 3.1.     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 commits to and as meant to enrich the common ground. In addition, provisos have to be made to include "derivative" (or "shifted") uses of EV2 in speech and thought representation.[5]

Now, as is well-known, there are varieties of Modern Icelandic where EV2 shows a broader distribution, as exemplified in (7b) (Rögnvaldsson and Thráinsson 1990: 23) and contrasted with Modern Swedish, (7a) (cf. Hrafnbjargarson and Wiklund 2009: 33).

(7)    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'

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[5] The strengths and weaknesses of the approach have recently been discussed by, among others, Julien (2015), Gärtner and Michaelis (2010), and Wiklund et al. (2009). It remains controversial (i) whether a weaker notion of assertion is called for and can be formulated, and (ii) how the (frequent) function of V2-clauses of encoding the "main point of utterance" (MPU) (Simons 2007) is to be captured.

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 (7)), 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.[6] Let us call the distribution of EV2 where EV2-friendly and "assertion-friendly" environments coincide "narrow EV2" [*n*EV2] and the extended one displayed by certain varieties of Modern Icelandic "broad EV2" [*b*EV2].[7]

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

## 4.    V-to-C Reanalysis

Sundquist's crucial observation, on which H&S (2017) 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 (cf. Garbacz, Håkansson and Rosenkvist 2007) nor does it take into account the difference between *n*EV2 and *b*EV2. As summarized by H&S (2017),

> [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.

### 4.1.    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. They are given as the underlined parts with their fuller contexts in (8) and (9).[8]

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[6] As is well-known, stylistic fronting (cf., e.g., Holmberg 2006) may sometimes interfere with this diagnostic.

[7] Vikner (1995: chapter 4) uses the terms "limited embedded V2" and "general embedded V2," where the latter has led to some misunderstanding (cf., e.g., Hrafnbjargarson and Wiklund 2009: 22).

Although the variation in question has been further confirmed empirically (Angantýsson 2011), it is doubtful whether a simple dichotomy of two "dialects," one displaying *b*EV2, the other *n*EV2, as originally suggested by Jónsson (1996: 39), is correct (Hrafnbjargarson and Wiklund 2009; Thráinsson 2011).

[8] 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.

(8) *Jeg erindrer mig om de dejlige Lunde wed Ketting,*
    I    remember REF about the beautiful groves near Ketting
    *<u>hwor jeg gich alltijd och spatzerede,</u> hwor jeg brød min Arm och falt af Hesten* [...]
    where I    went always and walked    where I    broke my arm 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 ...'

(9) *Udj hindis lidet Cammer, som waar inden for dend Stue,    hindis s. Moder laae i,*
    out.in her    small chamber REL was inside of that living.room her    late mother lay in
    *och <u>som Jomfru Helle Lyche waar alltijd hoß,</u> passerede jeg heele Efftermiddagene*
    and REL Miss    Helle Lyche was always with 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, (8), and that Miss Helle Lyche always was with her, (9), is additional information about independently established referents: the beautiful groves near Ketting in (8), and Miss Helle Lyche's late mother in (9). Clearly, we are dealing with "secondary" assertions (Chierchia and McConnell-Ginet 1990: 282), i.e., additional speaker/author commitments coming about via utterances of (8)/(9). Consequently, non-restrictive relative clauses must be considered EV2-friendly environments even in (the more limited) *n*EV2 systems (Section 3.1).[9] This result is in line with the observation by Hooper and Thompson (1973: 472) that English non-restrictive relatives allow "root transformations" such as subject-auxiliary inversion [SAI]:

(10) *Hal, <u>who under no circumstances would I trust,</u> asked for a key to the vault*

Thus, further technicalities aside,[10] a V-to-C analysis of the putative V-to-I cases in (8) and (9) may have to be envisaged as a viable option:

(11) a.   $[_{CP}$ *hwor*$_k$ $\varnothing$ $[_{CP}$ *jeg*$_j$ *gich*$_i$ $[_{IP}$ t$_j$ t$_i$' $[_{VP}$ *alltijd* $[_{VP}$ t$_i$ t$_k$ $]]]]]$
    b.   $[_{CP}$ Op$_k$ *som* $[_{CP}$ *Jomfru Helle Lyche*$_j$ *waar*$_i$ $[_{IP}$ t$_j$ t$_i$' $[_{VP}$ *alltijd* $[_{VP}$ t$_i$ *hoß* t$_k$ $]]]]]$

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[9] Reis (2006: 3.1) lists several criteria for considering canonical uses of German "appositive relatives" assertions. The fact that they nevertheless resist V2 is problematic for approaches seeking strong (bidirectional) correlations between V-to-C and illocutionary force, such as the one by Truckenbrodt (2006a; 2006b). Antomo (2012) suggests that "non-at-issueness" may be the blocking factor.

[10] Locality conditions (cf., e.g., Rizzi 2001) have to be taken into consideration. These concern the status of relative operators in non-restrictive relatives, the ability of fronted subjects to create "topic islands," and the question of how the two interact. It should be borne in mind in this connection that subject-initial V2 allows certain additional "non-standard" analytic options such as "co-projection" of CP and IP (cf. Haider 1988):

(i)       $[_{CP}$ *hwor*$_k$ $\varnothing$ $[_{CP|IP}$ *jeg gich*$_i$ $[_{VP}$ *alltijd* $[_{VP}$ t$_i$ t$_k$ $]]]]$

Note also that in German, which possesses weak demonstratives ("*d*-pronouns") as relativizers, the option for relative-like V2 clauses without CP-recursion exists. Although these clauses clearly require "assertion-friendly" environments, their distribution differs in striking ways from the one of standard non-restrictive relatives (cf. Gärtner 2001).

Therefore, the case against K&Z's proposal of V-to-C reanalysis would be strengthened by minimizing reliance on non-restrictive relatives as evidence.

## 4.2.  Conditional Clauses

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

(12)   *her Per vell  mett ted snareste 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.[11] Thus, if Early Modern Danish possesses *n*EV2, the conditional in (12) constitutes an EV2-hostile environment and a V-to-I analysis is called for.

  However, importantly, conditionals belong among the evidence in favor of taking older stages of Scandinavian to possess *b*EV2. This is exemplified for Old Icelandic in (13).[12]

(13)   *Dalla kvað mannamun mikinn og  þó  eigi víst að  til yndis yrði*
  Dalla  said   difference.of.men great   and even not  certain  that to  happiness would.become
  *ef þetta vissi Þorkell í  Tungu*
  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, this time supported by the subjunctive of *vissi*, we can assume to be dealing with a standard "hypothetical" conditional, which renders this an EV2-hostile enviroment under *n*EV2. The possibility of non-subject-initial EV2 in (13) thus indicates the kind of extension of EV2-friendly environments characteristic of *b*EV2. By contrast, the unacceptability of counterparts of (13) in Modern Danish (Vikner 1995: 160) conforms with the standard assumption that the modern Mainland Scandinavian languages have *n*EV2.[13]

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[11] Such conditionals typically introduce temporary commitments, "for the sake of argument" (Haegeman 2003: 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 (cf., e.g., Coniglio 2011: 4.2.4), with the speech act involved here consisting in "ascertaining" (or conceding) a fact rather than asserting a proposition.

[12] 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 and Stefánsson (1902). Thanks to Eiríkur Rögnvaldsson for bringing the example to my attention.

[13] Vikner (1995: 160) uses the Old Norwegian example in (i), cited after Nygaard (1905: 376) to illustrate *b*EV2.

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

We can infer from this brief look at conditionals that examples like (12) only constitute evidence against K&Z's V-to-C reanalysis proposal for Danish if Early Modern Danish can be assumed to be an *n*EV2 system like Modern Danish, rather than a *b*EV2 system. That this is not really clear is suggested by observations about Middle Danish, the immediately preceding historical stage, at which according to H&S (2017) agreement already counts as poor by the standards of the RAH (see Section 2 above). Thus, the following Middle Danish counterpart of (12), i.e., a hypothetical conditional displaying the critical pattern in (6) has been presented by Bentzen and Hróarsdóttir (2009: 128; citing Hrafnbjargarson 2004: 212).[14]

(14)  *vm min man hafvir inkte rætfongit    gooz hwat skal iac æda ællas drikkia*
     if  my  man has   not  rightly.received goods what shall 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),[15] Middle Danish has been argued by Vikner (1995: 160) to display *b*EV2.

(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."

## 4.3.  V-to-C Reanalysis and EV2-Types

Abstractly, the situation can − somewhat pedantically − be summarized as follows. Assume that a language possesses V-to-I in all "embedded" clause types. As depicted in the following table, V-to-C reanalysis, which in the core case means transition from structures like (6a) to structures of type (6b) (Section 2), implies avoidance of EV2-hostile environments (here marked as shaded areas).



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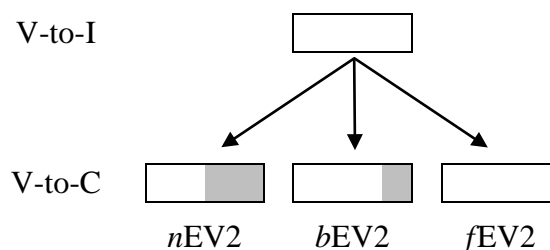
However, as pointed out to me by Jóhannes Gísli Jónsson (p.c.), the conditional in (i) can be analyzed as involving a passive construction with *honum* in Spec,IP and a VP that displays OV-order.

[14] Bentzen and Hróarsdóttir (2009: 5.1) use (i) from footnote 13 as part of the evidence that "Old and Middle MSc had [...] generalized embedded V2 with subject-verb inversion" (p.127), i.e., *b*EV2. 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 *b*EV2 to *n*EV2 must have taken place.

[15] A *som*-equative with fronted *nu* ("now") has also been used by Holmberg and Platzack (1995: 86f.) to illustrate Old Swedish *b*EV2. Another instance is attested in Old Norse (Faarlund 2004: 251).
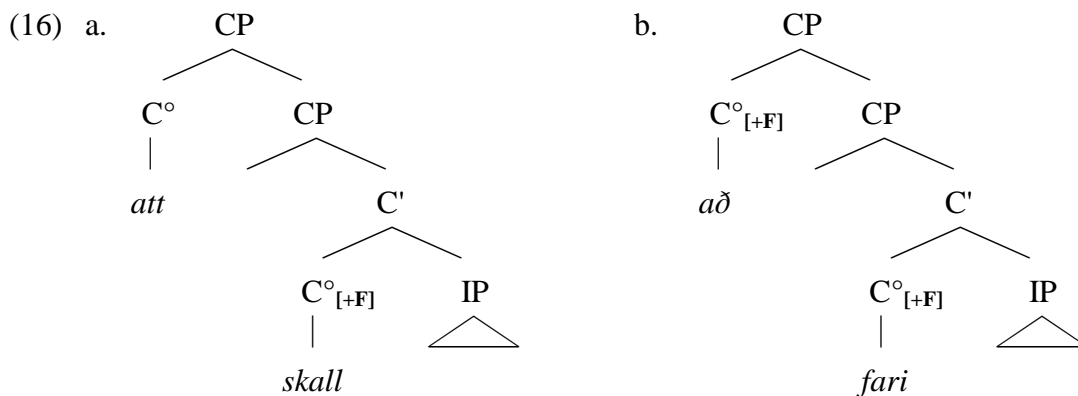
The distributional consequences of this avoidance, however, depend on the EV2-type of the language at the stage of the reanalysis. If the language possesses "free EV2" [*f*EV2], i.e., a (hypothetical) type where all environments are EV2-friendly, there would be no observable consequences. The strings representing pattern (6) would continue to occur in all embedded environments. If, by contrast, we are dealing with an *n*EV2 system, such strings will be confined to "assertion-friendly" environments. Finally, under *b*EV2 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.

## 5. 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 *b*EV2 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 *b*EV2 – broader than *n*EV2 but narrower than *f*EV2 – and (ii) the still only partially understood nature of *n*EV2 (Section 3.1), 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 this note, I'll leave the topic for further research. Instead, I'll conclude by briefly revisiting an approach to *b*EV2 that links it back to the RAH.

### 5.1. Broad EV2 and Rich Agreement

Holmberg and Platzack (1995: 3.4.3.–3.4.6.) analyze EV2 in terms of "CP-recursion" (cf., e.g., Vikner 1995), where the difference between *n*EV2 in modern Mainland Scandinavian and *b*EV2 in Modern Icelandic and Old Norse hinges on the absence vs. presence of an additional finiteness feature [+F] on the outer C° (p.84). This is schematically shown in (16a)/(16b), corresponding to the relevant parts of (7a)/(7b), respectively.

(16) a.

```
              CP
            /    \
          C°      CP
          |      /  \
         att         C'
                   /    \
               C°[+F]    IP
                 |       /\
               skall
```

b.

```
                CP
              /    \
          C°[+F]    CP
            |      /  \
           að          C'
                     /    \
                 C°[+F]    IP
                   |       /\
                 fari
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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 *n*EV2 for languages with poor agreement like Swedish, as exemplified in (16a)/(7a). 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)/(7b), to behave like ordinary subordinate clauses, which is the basis for *b*EV2.

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 (cf. also Holmberg and Platzack 1995: 77) but in addition it comes with a switch from *b*EV2 to *n*EV2, as summarized in (17).

(17)   rich agreement & V-to-I & *b*EV2
                    $\Downarrow$
       poor agreement & V-*in-situ* & *n*EV2

This immediately predicts that K&Z's V-to-C reanalysis of putative "late" V-to-I should occur in an *n*EV2 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 *b*EV2 would no longer work.

However, the close link in (17) is dubious for the simple reason that – as already pointed out (Section 3.1) – in Modern Icelandic *b*EV2 is found only in certain varieties. On the whole, Modern Icelandic shows variation between *b*EV2 and *n*EV2 (Jónsson 1996: 39). At the same time, all varieties of Modern Icelandic continue to possess both rich agreement and V-to-I.[16] Likewise, the combination of poor agreement and *b*EV2 may exist in some varieties of Modern Norwegian, where, according to the survey by Bentzen (2014), counterparts of (7b) were found acceptable. Similarly, the combination seems to show up in Middle Danish, as indicated at the end of Section 4.2.[17]

## 6.     Conclusion

As part of their "rehabilitation" of the "Rich Agreement Hypothesis" [RAH], Koeneman and 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 (cf., 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 and Sundquist [H&S] (2017) point out that V-to-C reanalysis is not an option in the case of Danish, for which

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[16] For some *prima facie* counterexamples to V-to-I in Modern Icelandic and their treatment, see Sigurðsson (1986), Angantýsson (2007), and Thráinsson (2010). Information structure seems to play an important role in licensing the configurations in question.

[17] Hrafnbjargarson and Wiklund (2009: 37f.) present a promising approach to the *n*EV2 vs. *b*EV2 distinction built on an articulated split CP (cf. Rizzi 1997) and independent of matters of verbal agreement.

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 note, 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 [*n*EV2] in modern Mainland Scandinavian – confined to roughly speaking "assertion-friendly" environments – is known to contrast with a "broader" distribution [*b*EV2] 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.[18] 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.[19] 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's 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 3.1), 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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[18] A related point can be made wrt the evidence for *bona fide* V-to-I in Middle English offered by K&Z (2014: 578):

(i)     *Bycause they come not up and offre*

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

[19] The same point can actually be made wrt the Yang-style grammar competition model (cf. Yang 2000) offered by Heycock and Wallenberg (2013), where EV2-friendly environments confer a competitive advantage to V-*in-situ* over V-to-I grammars (p.136f.). As far as I can see, the difference between determining these environments within *b*EV2 as opposed to *n*EV2 lies in speeding up the loss of V-to-I. The exact consequences of this observation remain to be explored.

# References

Andersson, Lars-Gunnar. 1975. Form and Function of Subordinate Clauses. Ph.D. Dissertation, Göteborg University.

Angantýsson, Ásgrímur. 2007. Verb-Third in Embedded Clauses in Icelandic. *Studia Linguistica*, 61, 237-260.

—. 2011. The Syntax of Embedded Clauses in Icelandic and Related Languages. Ph.D. Dissertation, University of Iceland.

Antomo, Mailin. 2012. Projective Meaning and the Licensing of Embedded Root Phenomena. *CONSOLE*, 19, 1-23.

Bentzen, Kristine. 2014. Embedded Verb Second (V2). *Nordic Atlas of Language Structures Journal*, 1, 211-224.

Bentzen, Kristine, and Thorbjörg Hróarsdóttir. 2009. Stepwise Loss of Verb Movement. In: R. Mohanty & M. Menon (eds.), *Universals and Variation*, 117-138. Hyderabad: The EFL University Press.

Chierchia, Gennaro, and Sally McConnell-Ginet. 1990. *Meaning and Grammar. An Introduction to Semantics*. Cambridge, MA: MIT Press.

Collingwood, William, and Jón Stefánsson. 1902. *The Life and Death of Cormac the Skald*. (Viking Club Translation Series, No. 1.) Ulverston: Holmes.

Coniglio, Marco. 2011. *Die Syntax der deutschen Modalpartikeln*. Berlin: Akademie Verlag.

de Haan, Germen. 2001. More is Going on Upstairs than Downstairs: Embedded Root Phenomena in West Frisian. *Journal of Comparative Germanic Linguistics*, 4, 3-38.

Faarlund, Jan Terje. 2004. *The Syntax of Old Norse*. Oxford: OUP.

Garbacz, Piotr, David Håkansson, and Henrik Rosenkvist. 2007. Review of 'Morphosyntactic Change in the History of the Mainland Scandinavian Languages' by John Sundquist. *Nordic Journal of Linguistics*, 30, 137-146.

Gärtner, Hans-Martin. 2001. Are There V2 Relative Clauses in German? *Journal of Comparative Germanic Linguistics*, 3, 97-141.

Gärtner, Hans-Martin, and Jens Michaelis. 2010. On Modeling the Distribution of Declarative V2-Clauses: the Case of Disjunction. In: S. Bab & K. Robering (eds.), *Judgements and Propositions*, 11-25. Berlin: Logos.

Haegeman, Liliane. 2003. Conditional Clauses: External and Internal Syntax. *Mind & Language*, 18, 317-339.

Haider, Hubert. 1988. Matching Projections. In: A. Cardinaletti, G. Cinque & G. Giusti (eds.), *Constituent Structure*, 101-123. Dordrecht: Foris.

Heycock, Caroline, and John Sundquist. 2017. Don't Rush to Rehabilitate: A Remark on Koeneman & Zeijlstra 2014. *Linguistic Inquiry*, 48:1.

Heycock, Caroline, and Joel Wallenberg. 2013. How Variational Acquisition Drives Syntactic Change. The Loss of Verb Movement in Scandinavian. *Journal of Comparative Germanic Linguistics*, 16, 127-157.

Holmberg, Anders. 1986. Word Order and Syntactic Features in Scandinavian Languages and English. Stockholm: University of Stockholm.

—. 2006. Stylistic Fronting. In: M. Everaert & H. van Riemsdijk (eds.), *The Blackwell Companion to Syntax, IV*, 532-565. Oxford: Blackwell.

Holmberg, Anders, and Christer Platzack. 1995. *The Role of Inflection in Scandinavian Syntax*. Oxford: OUP.

Hooper, Joan B., and Sandra A. Thompson. 1973. On the Applicability of Root Transformations. *Linguistic Inquiry*, 4, 465-497.

Hrafnbjargarson, Gunnar Hrafn. 2004. Oblique Subjects and Stylistic Fronting in the History of Scandinavian and English. The Role of IP-Spec. Ph.D. Dissertation, University of Aarhus.

Hrafnbjargarson, Gunnar Hrafn, and Anna-Lena Wiklund. 2009. General Embedded V2: Icelandic A, B, C etc. *Working Papers in Scandinavian Syntax*, 84, 21-51.

Jónsson, Jóhannes Gísli. 1996. Clausal Architecture and Case in Icelandic. Ph.D. Dissertation, University of Massachusetts at Amherst.

Julien, Marit. 2015. The Force of V2 Revisited. *Journal of Comparative Germanic Linguistics*, 18, 139-181.

Koeneman, Olaf, and Hedde Zeijlstra. 2014. The Rich Agreement Hypothesis Rehabilitated. *Linguistic Inquiry*, 45, 571-615.

Nygaard, Marius. 1905. *Norrøn Syntax*. Kristiania: Aschehoug.

Reis, Marga. 1997. Zum syntaktischen Status unselbständiger Verbzweit Sätze. In: C. Dürscheid (ed.), *Sprache im Fokus*, 121-144. Tübingen: Niemeyer.

—. 2006. Is German V-to-C Movement Really Semantically Motivated? Some Empirical Problems. *Theoretical Linguistics*, 32, 369-380.

Rizzi, Luigi. 1997. The Fine Structure of the Left Periphery. In: L. Haegeman (ed.), *Elements of Grammar*, 281-337. Dordrecht: Kluwer.

—. 2001. Relativized Minimality Effects. In: M. Baltin & C. Collins (eds.), *The Handbook of Contemporary Syntactic Theory*, 89-110. Oxford: Blackwell.

Roberts, Ian. 1993. *Verbs and Diachronic Syntax. A Comparative History of English and French*. Dordrecht: Kluwer.

Rögnvaldsson, Eiríkur, and Höskuldur Thráinsson. 1990. On Icelandic Word Order Once More. In: J. Maling & A. Zaenen (eds.), *Syntax and Semantics*, 24, 3-40. New York: Academic Press.

Roll, Mikael. 2006. Prosodic Cues to the Syntactic Structure of Subordinate Clauses in Swedish. In: G. Bruce & M. Horne (eds.), *Nordic Prosody*, 195-204. Frankfurt/M.: Peter Lang.

Roll, Mikael, Merle Horne, and Magnus Lindgren. 2009. Left-Edge Boundary Tone and Main Clause Verb Effects on Syntactic Processing in Embedded Clauses - An ERP Study. *Journal of Neurolinguistics*, 22, 55-73.

Sigurðsson, Halldór. 1986. Verb Post-Second in a V2 Language. In: Ö. Dahl & A. Holmberg (eds.), *Scandinavian Syntax*. Stockholm: University of Stockholm.

Simons, Mandy. 2007. Observations on Embedding Verbs, Evidentiality, and Presupposition. *Lingua*, 117, 1034-1056.

Sundquist, John. 2002. Morphosyntactic Change in the History of the Mainland Scandinavian Languages. Ph.D. Dissertation, Indiana University.

—. 2003. The Rich Agreement Hypothesis and Early Modern Danish Embedded-Clause Word Order. *Nordic Journal of Linguistics*, 26, 233-258.

Thráinsson, Höskuldur. 2010. Predictable and Unpredictable Sources of Variable Verb and Adverb Placement in Scandinavian. *Lingua*, 120, 1062-1088.

—. 2011. Icelandic A, B, C, D ...? Or: How Long is the Icelandic Alphabet?. Talk presented at DGfS 33, Göttingen University.

Truckenbrodt, Hubert. 2006a. On the Semantic Motivation of Syntactic Verb Movement to C in German. *Theoretical Linguistics*, 32, 257-306.

—. 2006b. Replies to the Comments by Gärtner, Plunze and Zimmermann, Portner, Potts, Reis, and Zaefferer. *Theoretical Linguistics*, 32, 387-410.

Vikner, Sten. 1995. *Verb Movement and Expletive Subjects in the Germanic Languages*. Oxford: OUP.

—. 1997. V°-to-I° Movement and Inflection for Person in All Tenses. In: L. Haegeman (ed.), *The New Comparative Syntax*, 189-212. London: Longman.

Wechsler, Stephen. 1991. Verb Second and Illocutionary Force. In: K. Leffel & D. Bouchard (eds.), *Views on Phrase Structure*, 177-191. Dordrecht: Kluwer.

Wiklund, Anna-Lena, Kristine Bentzen, Gunnar Hrafn Hrafnbjargarson, and Thorbjörg Hróarsdóttir. 2009. On the Distribution and Illocution of V2 in Scandinavian *that*-Clauses. *Lingua*, 119, 1914-1938.

Yang, Charles. 2000. Internal and External Forces in Language Change. *Language Variation and Change*, 12, 231-250.