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# 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 [ $n \mathrm{EV} 2$ ], 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 $n \mathrm{EV} 2$ system and the latter do so within $b \mathrm{EV} 2$, at least in Old Norse. Given evidence that Middle Danish possesses bEV2 (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 $b \mathrm{EV} 2$, 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):

[^0](2) Kuman (Papua New Guinea)

|  | SG | PL | $n a \rightarrow$ [+SPEAKER],[-PLURAL] |
| :---: | :---: | :---: | :---: |
| 1st | na | no | $n o \rightarrow$ [+SPEAKER],[+PLURAL] |
| 2nd | ene |  | ene $\rightarrow$ [-SPEAKER],[+PARTICIPANT] |
| 3rd | ye |  | $y e \rightarrow$ [-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

(4)
Modern Swedish

| säg- $a$ 'say' | SG | PL |  |
| :---: | :---: | :---: | :--- |
| 1st | säg-er | säg-er | er $\rightarrow$ [+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. ${ }^{2}$
a. ... hver stelpa [CP sem [ip Haraldur gaf ${ }_{\mathrm{i}}$ [vp ekki [vp $\mathrm{t}_{\mathbf{i}}$ bókina $\left.\left.]\right]\right]$ ]
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 [...].

[^1]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" $I^{\circ}$, standard cases of bona fide V-to-I, (6a), and subject-initial "embedded V2" (EV2) clauses, ${ }^{3}$ (6b), are string-identical. ${ }^{4}$

$$
\begin{align*}
& \text { a. ... [IP } \mathrm{SU} \mathrm{~V}_{\text {fin }} \text { [vp NEG/ADV [vp } \ldots t_{\mathrm{V}} \ldots  \tag{6}\\
& \text { b. ... [CP SU V }{ }_{\text {fin }}\left[\text { IP } t_{\text {SU }} t_{\mathrm{V}} \text { [ [vp } \mathrm{NEG} / \mathrm{ADV}\left[\mathrm{vp} \ldots t_{\mathrm{V}} \ldots\right.\right.
\end{align*}
$$

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

[^2]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 17 th 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 $\mathrm{H} \& S$ (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).
a. *Johan tvivlar på [cР att [CP i morgon skall [ip Maria gå upp tidigt ]]]
b. Jón efast um [Ср ad [ ${ }_{\text {CP }}$ á morgun fari [IP María snemma á fcetur ]]]
'John doubts that Mary will get up early tomorrow'

[^3]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-subjectinitial V2, the hallmark of bona fide V-to-C. ${ }^{6}$ Let us call the distribution of EV2 where EV2friendly and "assertion-friendly" environments coincide "narrow EV2" [ $n \mathrm{EV} 2$ ] and the extended one displayed by certain varieties of Modern Icelandic "broad EV2" [bEV2].?

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 - $n \mathrm{EV} 2$ or $b \mathrm{EV} 2$ - 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 $n \mathrm{EV} 2$ and $b \mathrm{EV} 2$. 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). ${ }^{8}$

[^4](8) Jeg erindrer mig om de dejlige Lunde wed Ketting,

I remember REF about the beautiful groves near Ketting
hwor jeg gich alltijd och spatzerede, 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 som Jomfru Helle Lyche waar alltijd hoß, 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, nonrestrictive relative clauses must be considered EV2-friendly environments even in (the more limited) $n \mathrm{EV} 2$ 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]:

## Hal, who under no circumstances would I trust, 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:
a. $\quad\left[\mathrm{CP}\right.$ hwor $_{\mathrm{k}} \varnothing\left[\right.$ СР $^{\text {jeg }} \mathrm{g}_{\mathrm{j}}$ gich $_{\mathrm{i}}\left[\mathrm{IIP}_{\mathrm{j}} \mathrm{t}_{\mathrm{i}}^{\prime}\left[\mathrm{VP}\right.\right.$ alltijd $\left.\left.\left.\left.\left[\mathrm{VP}_{\mathrm{t}} \mathrm{t}_{\mathrm{i}} \mathrm{t}\right]\right]\right]\right]\right]$


[^5]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 $b E V 2$. This is exemplified for Old Icelandic in (13). ${ }^{12}$
(13) Dalla kvað mannamun mikinn og bó eigi vist að tilyndis yrði Dalla said difference.of.men great and even not certain that to happiness would.become ef betta vissi Porkell i 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 $n \mathrm{EV} 2$. 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 with the standard assumption that the modern Mainland Scandinavian languages have $n \mathrm{EV} 2 .^{13}$

[^6]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 $n \mathrm{EV} 2$ system like Modern Danish, rather than a $b \mathrm{EV} 2$ 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 rcetfongit gooz hwat skal iac ceda cellas 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 suygae thøm, saa som nu giør Iødernce 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).


[^7]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 (6) would continue to occur in all embedded environments. If, by contrast, we are dealing with an $n \mathrm{EV} 2$ 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.

## 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 $b \mathrm{EV} 2$ 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 $b \mathrm{EV} 2$ - broader than $n \mathrm{EV} 2$ but narrower than $f \mathrm{EV} 2$ - and (ii) the still only partially understood nature of $n \mathrm{EV} 2$ (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 $b \mathrm{EV} 2$ 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 $b E V 2$ in Modern Icelandic and Old Norse hinges on the absence vs. presence of an additional finiteness feature $[+\mathrm{F}]$ on the outer $\mathrm{C}^{\circ}(\mathrm{p} .84)$. This is schematically shown in $(16 a) /(16 b)$, corresponding to the relevant parts of $(7 a) /(7 b)$, respectively.

b.


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 EV2clauses in question to "assertion-friendly" environments. This is what enforces $n \mathrm{EV} 2$ for languages with poor agreement like Swedish, as exemplified in (16a)/(7a). Lexicalization of $[+\mathrm{F}]$ 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 $b \mathrm{EV} 2$.

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 $b E V 2$ to $n \mathrm{EV} 2$, as summarized in (17).

> rich agreement \& V-to-I \& bEV2
> $\Downarrow \downarrow$
> poor agreement \& V-in-situ \& $n \mathrm{EV} 2$

This immediately predicts that K\&Z's V-to-C reanalysis of putative "late" V-to-I should occur in an $n \mathrm{EV} 2$ 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 $b E V 2$ 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 bEV2 is found only in certain varieties. On the whole, Modern Icelandic shows variation between $b \mathrm{EV} 2$ and $n \mathrm{EV} 2$ (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 $b E V 2$ 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

[^8]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 [ $n \mathrm{EV} 2$ ] 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. ${ }^{18}$ Second, "hypothetical" conditionals, which must be considered EV2-hostile under $n$ EV2, have been shown to constitute EV2-friendly environments in (Old Norse) bEV2. 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 $n \mathrm{EV} 2$. This may not hold for Middle Danish, where evidence for bEV2 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 bEV2, 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 $b \mathrm{EV} 2$ - broader than $n \mathrm{EV} 2$ but narrower than an entirely unconstrained "free" EV2 [ $f$ EV2] - and the still only partially understood nature of "assertion-friendly" environments as basis for $n \mathrm{EV} 2$ (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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# Enough already! <br> On directive modal particles in English and Swedish ${ }^{1}$ 

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#### Abstract

In non-standard American English, an innovative usage of already has emerged as the result of a translation borrowing from Yiddish. In this usage, already appears to have the properties of a Modal Particle, despite the fact that such a category has been argued to be essentially absent from English. It is shown that already and the Swedish Modal Particle nångång, share all of the relevant properties of a Modal Particle: They are phonetically weak elements, homophonous with lexical adverbial expressions, and strictly limited to the sentence final position. They scope over the entire proposition, are implicational, and only compatible with one particular kind of illocutionary Force, namely directive. Furthermore, they add expressive content, in particular that of impatience, and convey the expectation of immediate compliance on behalf of the hearer.


## 1 Introduction

The Modal Particle (henceforth MP) is a phonetically weak element with clausal scope, which adds expressive content to the clause without altering its truth conditions (e.g. König 1977; Abraham 1980, 1991, 2000; Löbner 1989; Zimmermann 2011, 2016; Bross 2012; Degand, Cornillie, \& Pietrandea 2013). In the restrictive approach of Abraham (1980, 2000), MPs exist in a very limited number of languages, including German, Dutch, West Frisian, Yiddish, and Mainland Scandinavian. ${ }^{2}$ On the other hand, according to the more liberal view of, for example, Zimmerman (2011), MPs represent a rather widespread phenomenon among the languages of the world. However, both these approaches concur on the point that MPs are quite restricted in a language such as English, where the equivalent "expressive functions" are conveyed with different means, such as intonation patterns (Waltereit 2001, Zimmermann 2011).

Interestingly, however, in non-standard American English, the adverb already is attested in contexts such as (1a-b):

[^10](1) a. this is so old, give it up already. try to remember bill clinton is NOT running for president.
(Washington Post, comment field, 2016-10-12)
b. Donald Trump Jr. offered some unsolicited career advice for women concerned about sexual harassment in the workplace: Just quit, already.
(Huffington Post, 2016-10-14)

Not all English speakers accept the usage illustrated in (1a-b), and to some it is not easily interpretable. In the following, we argue that, for the speakers who do accept these examples, already in (1a-b) is a Modal Particle (henceforth MP). The paper is organized as follows: In section 2, we give a brief background to the MP analysis. The argument is built on comparative data: It is shown that already has the same interpretation and distribution as modal particle nångång in Swedish, which to our knowledge has not been thoroughly been described in the literature. The striking parallelism between AmE already and Swedish nångång will be shown in section 3. The analysis follows in section 4.

## 2 Already and nångång

The usage of already in (1a-b) has been identified as a translation borrowing from Yiddish shoyn, the earliest examples dating to the beginning of the $20^{\text {th }}$ century (Feinsilver 1958:232, 1962:204; Safire $1998^{3}$ ). Today, such a pattern may be spreading, given the frequency with which it appears in AmE sitcoms and blogs. ${ }^{4}$ The relevant usage of already, then, is an interesting example of how an MP can be borrowed and integrated into a language which does not otherwise make use of MP's. In other words, MP already, as in (1a-b), does not originate as a development of Standard English adverbial already illustrated in (2):
(2) He already gave it up.

It is not trivial to define the relevant variety of AmE, or to identify the native speakers. The English variety attested in sitcoms, blogs, and comment fields may be very different from the L2 or heritage varieties in which the MP usage of already presumably first appeared. For the purposes of this paper, we argue on the basis of comparative evidence that MP already, as it is attested in television and on the net, has the same distribution as Swedish MP nångång.

Before we proceed, consider that MP's in continental Germanic are normally homophonous with some other item (as for instance adverbs) which does have lexical content. While the MP is unstressed, the homophonous item can carry stress. Such pairs "...will hardly

[^11]ever enter into the consciousness of the speaker as having anything in common with one another except their form" (Abraham 2000: 322). ${ }^{5}$

Whereas adverbial already in English can be stressed and appear both sentenceinternally and sentence-finally (3a), MP already cannot carry stress and only appears in the sentence final position (3b):
a. $\quad$ Should we (ALREADY) get going (ALREADY)?
b. Should we (*already) get GOing (already)?

That is to say, the MP occurrence of already typically has the intonation contour of (3b), with stress on the main verb. For the sake of clarity, we henceforth write the adverb in uppercase letters and the MP in lowercase letters, as in (3a-b).

Swedish MP nångång is homophonous with the adverbial expression nån gång 'some time', 'in some occasion', 'once'. While the lexical expression can carry stress and appear in the sentence midfield, as in (4a), the MP is unstressed and obligatorily sentence-final (4b). ${ }^{6}$
(4) a. Kan vi (NÅN gång) åka dit (NÅN gång)? can we some time go there some time 'could we go there for once?'
b. Kan vi (*nångång) ÅKa (nångång)?
can we nångång go nångång
For expository reasons, we signal this difference by writing lexical NAN gång as separate words, even if such a choice does not follow Swedish orthographic conventions. Importantly, whereas the MP nångång is obligatorily distressed, the lexical impression can carry stress and be pronounced as two separate words. It does not have to be however; hence, the lexical $N A N$ gång and the MP nångång are sometimes indistinguishable.

It is of some relevance that English is compared with a Germanic SVO language such as Swedish, rather than German or indeed Yiddish, given that the choice between SOV and SVO crucially changes certain premises. Also, the distribution and interpretation of already is distinctly different from, for instance, its German cognate schon (Zimmerman 2016).

## 3 Distribution and Restrictions

English already and Swedish nångång are not acceptable in assertive clauses:

[^12](5) a. *He has arrived already.
b. *Han har kommit nångång.

That is to say that the surface structures of ( $5 \mathrm{a}-\mathrm{b}$ ) are acceptable only with the respective lexical readings, not with the MP readings.

Instead, the prototypical context for already/nångång is the imperative, as in (6a-b)-(8ab):
(6) a. Just call him already!
b. Bara ring honom nångång! just call him nångång
a. Just eat your dinner already!
(Google)
b. Bara ät upp nångång!
just eat up nångång
(8) a. Get off the phone already!
(Google)
b. Lägg på luren nångång!

This observation extends to embedded imperatives (9a-b) and hortatives which may surface, for instance, as a consecutive clause (11a-b):
(9) a. I'm going to get tough and tell some of you to get going already!
(Google)
b. Jag tänker säga till er att komma iväg nångång.

I think say to you to get away nångång 'I'm going to tell you to leave'
(10) a. You should just come out of the closet and be openly gay already.
b. Ni borde bara vara öppet gay nångång. you should just be openly gay nångång
(11) a. So just tell me what I should do and stop giving me sermons so that I can hang up already!
(Google)
b. Säg bara vad jag ska göra så att jag kan lägga på nångång! say just what I shall do so that I can hang up nångång

Furthermore, the modal usage of already/nångång is frequently found in yes/no-questions (12a-b) and (13a-b), as well as in why-questions (14a-b) and (15a-b):
(12) a. Can you guys start caring already?
(Google)
b. Kan ni börja bry er nångång? can you start bother you nångång 'can you start bother'
(13) a. Can we go already?
(According to Jim)
b. Kan vi gå nångång? can we go nångång
(14) a. It's been five years. Why can't we just move on already?
(How I met your mother)
b. Varför kan vi inte bara gå vidare nångång?
why can we not just go ahead nångång
a. Why can't you do it already?
(Google)
b. Varför kan du inte göra det nångång? why can you not do it nångång

This may be taken to indicate that already/nångång are indeed compatible with the interrogative, but that is a misleading impression. Already/nångång are always directive in the sense of Searle (1975): In (12)-(15), the speaker expresses some wish with which the hearer is expected to comply. In fact, such constructions are subject to syntactic restrictions indicating that they do not have interrogative status. Already/nångång cannot combine with whquestions other than why. (16a-b) are unacceptable under the relevant reading of already/nångång.
(16) a. *What are you doing already?
b. *Vad gör du nångång?

As is generally the case with MP's, already/nångång are strictly limited to one particular illocutionary force. Moreover, consider that already/nångång scope over the entire proposition and, hence, are incompatible with information focus on single arguments as in (16a-b).

Furthermore, the apparent why-questions only appear in the negative: All of (17a-b) and (18a-b) are unacceptable in the relevant readings.
(17) a. *Why are you doing it already?
b. *Varför gör du det nångång?
(18) a. *Why is he coming here already?
b. *Varför kommer han nångång?

That is to say that, in (17a-b) and (18a-b), we can only access the lexical readings of ALREADY and NÅN gång. It is licit to speculate that this restriction stems from the presuppositional content of the directive (it is presupposed that the event has not taken place).

Lastly, what appears to be a difference between already and nångaing is the fact that already can appear in elliptic utterances, i.e. in exclamations such as (19a-b). The equivalent example (20) is not acceptable in Swedish:
(19) a. Enough already! Ted, that button's mine!
(How I met your mother)
b. Alright already! I didn't have friends.
(The Simpsons)
*Nog nångång! enough nångång

Farrell Ackerman (p.c.) points out to us that under given circumstances an utterance such as (20) is acceptable in his AmE variety:

## (21) Who is coming already?

The relevant context of (21) is one in which the hearer is supposed to tell me who is coming tonight but does not come to the point. I can express impatience by uttering (21), in which, however, already does not scope over the wh-question: Just tell me already (who is coming).

## 4 Analysis

From the above examples, it is clear that already/nångaing add expressive content, that is, the attitude of impatience and annoyance. The implication is that the eventuality, $e$, has not yet taken place but should have done so, in the speaker's opinion. Note, for instance, that already/nångång are not compatible with the directive in a case in which the speaker encourages the hearer to continue to do something. Imagine a context in which I ask the hearer to continue to take a week off work now and then. Such a directive cannot be expressed as in (22a-b) (even if I am impatient about it):
(22) a. *Continue to go on a holiday already.
b. *Fortsätt att åka på semester nångång.

Arguably, this is so because of the implication that $e$ has not yet begun. We conclude that the already/nångång construction is at the same time directive, expressive, and implicational.

The analysis, thus, needs to incorporate a couple of basic intuitions: First, the illocutionary Force of the clause is specified directive. Second, it must be assumed that an aspectual feature is projected in the structure, relating to the notion of immediacy. A salient property of already/nångång, namely, is that such items imply that the speaker expects immediate compliance from the hearer. This can be shown by putting already/nångång in comparison to expressions such as English for one time's sakelfor once, and the Swedish equivalent för en gångs skull, which do not share such a property. A speaker who knows that his or her child is having an exam next Monday, can say (23a-b) on Thursday:
(23) a. Do your homework over the weekend for once!
b. Gör din läxa över helgen fören gångs skull! do your homework over weekend.the for one time's sake

Consider that already/nångång could not have been used in such a context:
(24) a. *Do your homework over the weekend already!
b. *Gör din läxa över helgen nångång! do your homework over weekend.the nångång

Arguably, this restriction stems from the fact that already/nångång are in conflict with a time expression which does not imply that $e$ immediately follows the time of the utterance. To be more precise, we are comparing two different interpretations: On the one hand, there are expressions describing that the speaker expects the immediate occurrence of $e$ (or the immediate beginning of it, if $e$ has extension). On the other, there are expressions describing that the speaker expects at least one occurrence of $e$, though not necessarily an immediate one. In Swedish, the MP nångång corresponds to the former reading, while the second one can be conveyed by the lexical expression NÅN gång.

Suppose, then, that the MP structure of such clauses hosts a Force Projection defined as directive and an Aspect Projection corresponding to the feature of immediacy, dominating the VP:

## [ForceP Directive [CP... [AspectP Immediate already [VP (XP)]]]]

For present purposes, the analysis disregards the TP, assuming that the directive clause is tenseless, and does not define a subject position given that the subject is inherently $2^{\text {nd }}$ person.

In order to derive the word order, we assume that the VP containing the verb and possible complements (XP in (25)) is raised above the AspectP, so as to make the MP's already/nångång appear in final position.

## [ForceP Directive [CP... [VP] [AspectP Immediate already [VP] ]]]

It is licit to speculate that such raising is focus-driven. Focal stress invariably falls on the VP and, furthermore, the MP already/nångång co-occur with a preverbal focusing element, typically English just and Swedish bara 'only', as in (27a-b) (also, see (1b), (6a-b), (7a-b), (10a-b) for instance).
a. Just hit me already!
(Anger Management)
b. Bara klipp till mig nångång only hit to me nångång

Considering that such elements impose a focus reading on the following constituent, suppose that just/bara signal the presence of a Focus Phrase on top of the VP layer, following a line of thought originating in Brody (1990:207). The lowest VP moves up to this Focus Phrase, thus appearing to the left of the MP already/nångaing: ${ }^{78}$

[^13]$$
\text { [ForceP Directive }[\mathrm{CP} \ldots[\text { FocusP } j \text { ust }[\mathrm{VP}][\text { AspectP } \text { already }[\mathrm{VP}]]]]]
$$

The structure in (28) captures the intuition that such derivations encode at least Force, Focus, and Aspect.

## 5 Conclusion

In non standard American English an innovative usage of already has emerged as the result of a translation borrowing from Yiddish. In this usage, already appears to have the properties of a Modal Particle, despite the fact that such a category has been argued to be essentially absent from English. It has been shown that already and the Swedish Modal Particle nångång, share all of the relevant properties of a Modal Particle: They are phonetically weak elements, homophonous with lexical adverbial expressions, and strictly limited to the sentence final position. They scope over the entire proposition, are implicational, and only compatible with one particular kind of illocutionary Force, namely directive. Furthermore, they add expressive content, in particular that of impatience, and convey the expectation of immediate compliance on behalf of the hearer.

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out as a conflict between focus domains. The same restriction is expected to appear if an argument is focused within the VP: While Just believe me already! is predicted to be wellformed, Believe ME already! is expected to be deviant. At present we ignore whether these predictions are accurate.

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# Exceptional Movement from/into the Criterial Position* 

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#### Abstract

In this paper, I discuss exceptional movement from/into the Criterial Position within the framework of Labeling Algorithm (Chomsky 2013, 2015). In Scandinavian Object Shift, the object pronoun can exceptionally move out of [Spec,RP], the Criterial Position for objects in the unmarked case in which they complete the valuation of their unvalued Case feature. In Icelandic Stylistic Fronting, the categories that do not have any feature(s) in which they should agree with T can exceptionally move to [Spec,TP], a typical Criterial Position claimed in the literature (Rizzi 2015). Hosono (2013) argues that the object pronoun in the Scandinavian languages moves to cause downstep. Holmberg (2000) argues that Icelandic Stylistic Fronting occurs due to the requirement that something phonologically visible must occupy [Spec,TP]. On the basis of their claims, I propose that exceptional movement from/into the Criterial Position can occur only when it is required from phonology. It is argued that though a raised category must have some unvalued feature(s) in which it should agree with a head in a raised position in the system of Labeling Algorithm, a category can move without any unvalued feature(s) in this exceptional syntactic movement.


## 1. Introduction

It has been argued that a sentential element cannot move up further from some structural positions, the problem called the Halting Problem (Rizzi 2006, 2010, 2015; Chomsky 2013, 2015). In (1a), the wh-object which dog moves from its original position to [Spec,(embedded)CP] and must stop there. It cannot move up to [Spec,(matrix)CP]; see (1b). Such positions as [Spec,(embedded)CP] in which a sentential element is frozen (and cannot move up further) are called the Criterial Position (CriP). ${ }^{1}$

[^14](1) a. You wonder [ ${ }^{\text {CP }}[$ which dog] C John likes [which dogf].
b. *[cР [which dog] do you wonder [cР [which dogl C John likes [which dogf]]?

In this paper, I discuss exceptional movement from/into the CriP within the framework of Labeling Algorithm (LA, Chomsky 2013, 2015), taking Scandinavian Object Shift (OS, Holmberg 1986, 1999) and Icelandic Stylistic Fronting (SF, Holmberg 2000) as example. ${ }^{2}$ In Scandinavian OS, the object pronoun can exceptionally move out of [Spec,RP], the CriP for objects in the unmarked case in which they complete the valuation of their unvalued Case. In Icelandic SF , the categories that do not have any feature(s) in which they should agree with T can exceptionally move to [Spec,TP], a typical CriP claimed in the literature (Rizzi 2015). According to Hosono (2013), the object pronoun in the Scandinavian languages moves to cause downstep. According to Holmberg (2000), Icelandic SF occurs due to the requirement that something phonologically visible must occupy [Spec,TP]. On the basis of their claims, I propose that exceptional movement from/into the CriP can occur only when it is required from phonology. It is argued that though a raised category must have some unvalued feature(s) in which it should agree with a head in a raised position in the LA derivational system, a category can move without any unvalued feature(s) in this exceptional syntactic movement.

The paper is organized as follows. In section 2, I briefly introduce the basic idea of the LA framework and describe how to derive (1a-b) within this framework. Section 3 and section 4 introduce the basic properties of Scandinavian OS and Icelandic SF in that order. In each section, the way of deriving relevant constructions on the basis of the LA system is presented, and exceptional properties of these movement phenomena are discussed. Section 5 proposes that exceptional movement from/into the CriP can occur only when it

[^15]is required from phonology. Section 6 briefly concludes this paper, suggesting some problems on labeling.

## 2. Labeling Algorithm and the Derivation of the Halting Problem

According to Chomsky $(2013,2015)$, a syntactic object does not inherently have a phrasal label, but the label is determined in the course of derivation by LA, a minimal search of computation. In the structure where a phase head, either $v^{*}$ or C, merges to a maximal projection, XP, LA takes the label of that phase head. When a non-phase head, either a verbal root R or T , which is weak by assumption, merges to XP, a category inside XP needs to move to the Spec of that non-phase head to strengthen it. The raised category and the non-phase head agree in some feature(s), and LA takes the shared feature(s) as the label of the projection.

In the structure in which two maximal projections, XP and YP, merge, one way to label the projection is that one of them moves out. LA searches the head of the remaining maximal projection, either X or Y , and takes it as the label of the projection. The other way is to take the feature shared by XP and YP as the label, i.e. by Agree between XP and YP. LA takes the shared feature, e.g. $\varphi$-features, and labels the projection $\langle\varphi, \varphi\rangle$. When the latter strategy is taken, neither XP nor YP can move up further: if one of them moved out, it would be invisible in their agreeing position, e.g. as in (XP ...) [XP, YP], and labeling of the construction [ $\mathrm{XP}, \mathrm{YP}$ ], could not be done. This accounts for why a category in the CriP cannot move up further, which is described below.

The Halting Problem, (1a-b), is derived as illustrated in (2a-b). Which $d o g$ moves to the Spec of the embedded C that has Q . Agree occurs between the unvalued [wh] of which dog and the valued [Q] of $\mathrm{C}_{\mathrm{Q}}$, and the projection of $\mathrm{C}_{\mathrm{Q}}$ is labeled QP (2a). If which dog moved out of [Spec, QP] as in (2b), it would be invisible in [Spec,QP], and the embedded clause could not be labeled. Thus,
which dog must stop in [Spec,QP], the CriP for that wh-phrase, and cannot move up further. ${ }^{3}$
(2) a. You wonder [ ${ }_{Q P}[\mathrm{Q}$ which $\operatorname{dog}] \mathrm{C}_{\mathrm{Q}}$ John likes $\mathrm{E}_{\mathrm{Q}}$-which dog $]$ ].
b. ${ }^{*}\left[\mathrm{Q}\right.$ which dog] do you wonder [ ${ }_{\mathrm{QP}} \mathrm{Q}_{\mathrm{Q}}$ which dog $\mathrm{C}_{\mathrm{Q}}$ John likes $\mathrm{E}_{\mathrm{Q}}$ which dog $]$ ?

Note that which dog completes the valuation of its unvalued [wh] in [Spec, QP] and does not have any more unvalued feature(s), ${ }^{4}$ which prevents it from moving up to the matrix Spec. That is, the CriP is the position where a raised category completes the valuation of all of its unvalued features. Without any more unvalued feature(s), which dog cannot move up to the matrix Spec, since it cannot agree with the matrix C head. Thus, in the LA system, a raised category must have some unvalued feature(s) in which it agrees with a head in a raised position. After it completes the valuation of all of its unvalued feature(s), it cannot move up further. It must stop in that raised position, i.e. in the CriP for that category.

Within the phase framework until Chomsky (2008), it was assumed that syntactic movement is allowed to occur only when a new semantic effect is produced. Movement that does not cause any semantic change was assumed to occur in phonology. But a corollary of the LA derivational system is that any category can move in narrow syntax regardless of whether a semantic change occurs or not. Movement of any category would seem to be free. However, a raised category must have some unvalued feature(s) in which it agrees with a head in a raised position and which can be valued in that raised position only by that head. ${ }^{5}$ Thus, movement is actually not free in the LA system.

[^16]
## 3. Exceptional Movement from the Criterial Position <br> - Scandinavian Object Shift

In the Scandinavian languages, weak pronominal objects can move across a sentence adverb like a negation (3a), contrary to full NP objects that do not move in the unmarked case (3b).
a. Jag målade den inte.
[Swe.]
I painted it not
'I didn't paint it.'
b. Jag kysste inte Marit.

I kissed not Marit
'I didn't kiss Marit.'

OS in the Scandinavian languages is dependent on verb movement (Holmberg's Generalization, Holmberg 1986). Specifically, in simple tense forms (4a), the main verb moves to the second position; the object pronoun can move too. OS is obligatory in some of the Scandinavian varieties, but optional in others. On the other hand, in complex tense forms (4b), the main verb does not move due to the presence of the Aux(iliary verb). In embedded clauses (4c), main verb movement does not occur. The object pronoun cannot move across the negation in either of the cases.
a. Jag målade $<{ }^{\mathrm{OK}}$ den $>$ inte målade $<{ }^{\mathrm{OK}}$ den $>$.
I painted it not it
'I didn't paint it'
[Swe.]
I painted it not it
'I didn't paint it'
movement does not apply freely, since a raised item must have some unvalued feature to be valued in a raised position; but it is only when it moves that we can see that it has an unvalued feature. What is meant here is that a raised item must have some unvalued feature(s), as long as it moves. Not only a raised item but also an item that does not move can have unvalued features. T , for instance, has unvalued $\varphi$-features inherited from C which are valued by an item raised to [Spec, TP ] as we see in detail soon below, but T itself does not move (or will move in phonology, according to Chomsky 2013, 2015). However, an item that moves must have some unvalued feature(s) in which it agrees with a head in a raised position in the LA system.
b. Jag har $<$ *den $>$ inte målat $<{ }^{\mathrm{OK}}$ den $>$.

I have it not painted it 'I haven't painted it.'
c. Jag sa att jag <*honom>inte målade $<{ }^{\mathrm{OK}}$ honom>.

I said that I him not portrayed him
'I said that I didn't portray him.'

No movement phenomenon other than OS in which movement of a sentential element is dependent on that of another sentential element has been found. Due to this property, OS has long been controversial in generative syntax (Diesing 1992, 1997; Holmberg and Platzack 1995; Holmberg 1999; Chomsky 2001; Sells 2001; Vikner 2001; Josefsson 2003, 2010; Fox and Pesetsky 2005; Erteschik-Shir 2005; Broekhuis 2008; Mikkelsen 2011; among others).

The derivation of (3a-b) based on the LA system is illustrated in (5a-b). Let us consider the derivational process until when $\mathrm{v} * \mathrm{P}$ is transferred.
a. $\quad \ldots \mathrm{C}[\alpha=\mathrm{TP})$ jag $\left[\mathrm{T}\left[\beta\right.\right.$ inte $\left[\gamma=\mathrm{v}^{*} \mathrm{P}\right)$ jag [målade $(=\mathrm{R})+\mathrm{v}^{*}$ [ $\delta(=\mathrm{RP})$ den [målade $(=\mathrm{R})[\varepsilon$ den] $]$ ] $]$ ] $]$ ]
b. $\quad \ldots \mathrm{C}\left[\alpha(=\mathrm{TP}){ }^{\mathrm{jag}}\left[\mathrm{T}\left[{ }_{\beta}\right.\right.\right.$ inte $\left[\gamma\left(=v^{*} \mathrm{P}\right)\right.$ jag $\left[\right.$ kysste $(=\mathrm{R})+\mathrm{v}^{*}$ $\left[{ }_{\delta(\text { (RP) }} \operatorname{Marit}\left[\mathrm{kysste}(=\mathrm{R})\right.\right.$ [ $\varepsilon_{\varepsilon}$ Maritt] $]$ ] $]$ ] $]$ ]

The verbal root R , målade (5a)/kysste (5b), merges to the internal argument, den (5a)/Marit (5b). Since målade/kysste $(=\mathrm{R})$ is a non-phase head and weak, den/Marit moves to [Spec,R] to strengthen it. The phase head $\mathrm{v}^{*}$ merges to $\delta$. Phasehood is inherited from $\mathrm{v}^{*}$ to R , that is, functional features such as $\varphi$-features that are located in $\mathrm{v}^{*}$ are inherited to målade/kysste $(=\mathrm{R})$. Målade/kysste $(=\mathrm{R})$ and den/Marit in its Spec Obj(ect)-agree and the latter is assigned an Acc(usative Case). $\delta$ is labeled RP. Målade/kysste $=\mathrm{R}$ ) moves to $\mathrm{v}^{*}$
to become a verbal category. ${ }^{6}$ Phasehood is activated in the original position of $R$. $\varepsilon$, the complement of $R$ (which is now vacuous), is transferred.

The external argument of $\mathrm{v}^{*}, j a g$, merges to the syntactic object that has already been built. The negation inte and T also merge. ${ }^{7}$ Since T is a non-phase head and weak, DP in its complement, i.e. jag in [Spec, $\gamma$ ], moves to $[$ Spec, $\alpha$ ] to strengthen it. After jag moves out, LA finds the phase head $v^{*}$ and $\gamma$ is labeled v*P. The phase head C merges to $\alpha$. Phasehood is inherited from C to T, that is, functional features in C including $\varphi$-features are inherited to T . T and jag in its Spec Subj(ect)-agree and the latter is assigned a Nom(inative Case). $\alpha$ is labeled TP. Phasehood is activated in T. $\gamma\left(=v^{*} \mathrm{P}\right)$, the complement of T, including $\delta(=\mathrm{RP})$, is then transferred.

Consider the properties of the position where the object is located, i.e. [Spec,RP]. The object, den (5a)/Marit (5b), moves to that position and Obj-agrees with målade (5a)/kysste (5b). The unvalued Case of the object is valued and assigned an Acc by the $\varphi$-features in målade/kysste $(=\mathrm{R})$. The object stops there. That is, [Spec,RP], in which the object completes the valuation of all of its unvalued feature(s), is the CriP for the object. Except when the object still has other unvalued feature(s) that cannot be valued there and need to be valued in a higher position, as in the case of wh-objects that have an unvalued [wh], the object stops and is frozen in [Spec,RP] in the unmarked case.

Therefore, the object, whether it is an object pronoun such as den (5a) or a full NP object such as Marit (5b), could not move up further: with all the unvalued features including Case valued in [Spec,RP], the object could not move out of [Spec,RP]. However, object pronouns in the Scandinavian

[^17]languages can exceptionally move out, though it does not have any more unvalued feature(s). ${ }^{8}$

## 4. Exceptional Movement into the Criterial Position - Icelandic Stylistic Fronting

In Icelandic, a sentential element can optionally move to the subject position when it is empty (Holmberg 2000). ${ }^{9}$ In (6a), the embedded subject position is empty. The sentence adverb sennilega can optionally move to that position (6b). In (7a), the subject position is occupied by the expletive pad. When the expletive is deleted, one of the clausal elements, the past participle tekin, moves to the subject position (7b). As claimed in the literature, the subject position, [Spec,TP], is a typical CriP; see Rizzi $(2006,2010,2015)$.
a. Hver sagðir pú [að __hefơi sennilega skrifað pessa bók]?
[Ice.] who said you that has probably written this book 'Who did you say has probably written this book?'
b. Hver sagðir pú [að sennilega hefði $\qquad$ skrifað pessa bók]?
a. Pað hefur verið tekin erfið ákvörðun. there has been taken difficult decision 'A difficult decision has been taken.'
b. Tekin hefur verið $\qquad$ erfið ákvörðun.

The embedded clause of (6b) would be derived within the LA framework as illustrated in (8). We consider the derivational process until v*P is transferred.
 [ $\delta(=$ RP) pessa bók [skrifað $(=R)$ [ $\varepsilon$ pessa bók]]] $]$ ] $]$ ]

[^18]The verbal root R, skrifad, merges to the internal argument, bessa bók. ${ }^{10}$ Since skrifa $(=\mathrm{R})$ is a non-phase head and weak, pessa bók moves to $[\mathrm{Spec}, \mathrm{R}]$ to strengthen it. The phase head $\mathrm{v}^{*}$ merges to $\delta$. Phasehood is inherited from $\mathrm{v}^{*}$ to R , that is, functional features in $\mathrm{V}^{*}$ including $\varphi$-features are inherited to skrifa $(=\mathrm{R})$. $\operatorname{Skrifa\partial }(=\mathrm{R})$ and pessa bók in its Spec Obj-agree and the latter is assigned an Acc. $\delta$ is labeled RP. Skrifa $\left(=\right.$ R) moves to $\mathrm{v}^{*}$ to become a verbal category. ${ }^{11}$ Phasehood is activated in the original position of R. $\varepsilon$, the complement of R (which is now vacuous), is transferred.

The external argument of (skrifa $\partial(=\mathrm{R})+) \mathrm{v}^{*}$ merges to the syntactic object that has already been built. Since it is phonetically empty as notated as pro, LA cannot find it as the label of $\gamma$. With the phase head $\mathrm{v}^{*}$ taken, $\gamma$ is labeled $\mathrm{v}^{*} \mathrm{P}$. The sentence adverb sennilega merges to $\gamma\left(=v^{*} \mathrm{P}\right){ }^{12}$ T, to which the Aux hef $\partial i$ adjoins, merges to $\beta .^{13}$ Since $T$ is a non-phase head and weak, the adverb sennilega moves to $[\mathrm{Spec}, \mathrm{T}]$ to strengthen it. ${ }^{14}$ The phase head C , i.e. ad, merges to $\alpha$. Phasehood is inherited from C to T , that is, functional features in C including $\varphi$-features are inherited to T. T and sennilega in its Spec agree, and $\alpha$ is labeled TP. Phasehood is activated in T. $\gamma(=\mathrm{v} * \mathrm{P})$, the complement of T, including $\delta(=\mathrm{RP})$, is then transferred.

It is unclear whether the adverb has any unvalued features in which it agrees with T in $[\mathrm{Spec}, \mathrm{TP}]$. As has been stated so far, in the LA derivational system, a raised category must have some unvalued feature(s) that cannot be valued in the original position but can be valued only in a raised position.

[^19]Contrary to nominals that have an unvalued Case, the adverb does not seem to have any unvalued feature(s): being able to adjoin to syntactic objects freely and stand alone, the adverb does not have any dependency relation with any category at all. Thus, the adverb that does not have any unvalued feature(s) in which it should agree with T in $[\mathrm{Spec}, \mathrm{TP}]$ could not move at all. ${ }^{15}$ But the adverb can exceptionally move to [Spec,TP] in Icelandic SF.

## 5. Proposal

Regarding Scandinavian OS, Hosono (2013) argues that downstep (cf. Gussenhoven 2004) occurs in simple tense forms in which the object pronoun moves, whereas downstep does not occur in sentential forms in which the object pronoun does not move. This observation is hypothesized in the way that the object pronoun moves to cause downstep. Holmberg's Generalization is accounted for as follows. In ( $4 \mathrm{a}-\mathrm{c}$ ), the main verb carries the focus in the unmarked case. In simple tense forms (4a), the object pronoun moves to cause downstep and eliminate a focal effect on the negation located after the main verb. In complex tense forms (4b) and embedded clauses (4c), the final pitch peak occurs on the in-situ main verb located after the negation. Since the pitch continues to rise up to the main verb, the object pronoun must not move and cause downstep before the main verb (Hosono 2013:148-151). ${ }^{16}$

Hosono's claim indicates that movement of the object pronoun occurs when it is required from the phonological/phonetic component. As stated in section 3, the object in general cannot move out of [Spec,RP], the CriP for the

[^20]object in the unmarked case, since it completes the valuation of all of its unvalued features there. But only the object pronoun in the Scandinavian languages can exceptionally move out of that position without any more unvalued feature(s). The object pronoun moves only when it needs to cause downstep.

Regarding Icelandic SF, Holmberg (2000) convincingly argues that it occurs due to the requirement that something phonologically visible must occupy [Spec,TP]. The categories that can be raised in Icelandic SF are sentence adverbs including a negation, adjectives, past participles, verb particles, and locative PPs, neither of which seems to have any unvalued feature(s) in which they should agree with T in [Spec,TP]. According to Holmberg, Icelandic SF does not produce any new semantic effects such as focus and topic, but it occurs only to fill [Spec,TP] visibly. He claims that the finite T has a feature that requires a phonologically visible sentential element to occupy [Spec,TP], which he calls the EPP.

Holmberg's claim indicates that Icelandic SF occurs due to a phonological requirement. As has been stated so far, in the LA derivational system, a raised category must have some unvalued feature(s) in which they agree with a head in a raised position. The categories that do not have any unvalued feature(s) could not move. But in Icelandic SF, the categories that do not have any unvalued feature(s) move to fill [Spec,TP] in a phonetically visible manner.

Based on Hosono's (2013) claim on Scandinavian OS and Holmberg's (2000) claim on Icelandic SF, I propose the following formulation:
(9) Exceptional movement from/into the Criterial Position can occur only when it is required from phonology. (First approximation)

It is predicted that when there is no requirement from phonology, movement
from the CriP does not need to occur. This is confirmed by Hosono's (2013) statistical data on downstep in the constructions relevant to Scandinavian OS. As stated in section 3, OS is obligatory in some of the Scandinavian varieties, but optional in others; see (4a). According to Hosono, OS is optional in Swedish as well as in far more Scandinavian varieties than considered so far, contrary to the claim in the literature (e.g. Chomsky 2001). ${ }^{17}$ Hosono shows that the ratio of downstep in the simple tense form in which the object pronoun moves, i.e. jag målade den inte (I painted it not), is significantly higher than the ratio of downstep in the simple tense form in which the object pronoun does not move, i.e. jag målade inte den (I painted not it). This data indicates that when downstep needs to occur due to the requirement from phonology, the object pronoun moves out of the CriP and causes downstep. When downstep does not need to occur, the object pronoun does not need to move out.

For confirmation, this exceptional movement required from phonology occurs in narrow syntax, not in the phonological component. Scandinavian OS must occur in narrow syntax, not in phonology as claimed by Chomsky (2001). The object pronoun moves across the negation inte, which is located in [Spec, $\beta$ ] in (5a). After $\gamma\left(=\mathrm{v}^{*} \mathrm{P}\right)$ including $\delta(=\mathrm{RP})$ is transferred, the element(s) inside $\gamma(=\mathrm{v} * \mathrm{P})$ cannot move up further. Hence, the object pronoun must move across the negation before $\gamma\left(=v^{*} \mathrm{P}\right)$ is transferred. ${ }^{18}$ Regarding movement into the subject position, such movement as Icelandic SF has traditionally been the operation of substitution in which a syntactic position hosts a sentential element raised into it. No reason can be found to justify the assumption that such an operation occurs in phonology.

[^21]Precisely how is exceptional movement required from phonology syntactically formulated? As has been stated so far, in the LA system, a raised category must have some unvalued feature(s) in which it should agree with a head in a raised position. In Scandinavian OS, after the object pronoun has its unvalued Case valued in [Spec,RP], it exceptionally moves out without any more unvalued feature(s). In Icelandic SF, categories such as adverbs can exceptionally move to [Spec,TP], though they do not have any unvalued feature(s) in which they should agree with T in [Spec,TP]. Thus, exceptional movement required from phonology is the syntactic movement in which a category moves without any unvalued feature(s) (in which it should agree with a head in a raised position). I propose the following final formulation on exceptional movement from/into the CriP:
(10) Exceptional movement from/into the Criterial Position in which a raised category does not have any unvalued feature(s) (in which it should agree with a head in a raised position) occurs in syntax only when it is required from phonology. (Final)

A question arises how to label $\alpha$ in (8) if Agree does not occur between T and the category raised to [Spec, TP], the latter of which does not have any unvalued feature(s) in which it should agree with T. Note that Icelandic has quite a rich inflectional system, e.g. like Italian. According to Chomsky (2013, 2015), such languages as Italian have a strong T which can label itself without help of a category raised to its Spec. It is not implausible that Icelandic too has a strong T which can label itself TP, regardless of whether a sentential element moves to [Spec.TP]. Thus, a sentential element that does not have any feature(s) in which it should agree with T can move to [Spec, TP] in Icelandic SF.

## 6. Conclusion

In this paper, I have discussed exceptional movement from/into the CriP within the LA framework (Chomsky 2013, 2015). In Scandinavian OS, the object pronoun can exceptionally move out of [Spec,RP], the CriP for objects in the unmarked case in which they complete the valuation of their unvalued Case feature. In Icelandic SF, the categories that do not have any feature(s) in which they should agree with T can exceptionally move to [Spec, TP], a typical CriP claimed in the literature. According to Hosono (2013), the object pronoun in the Scandinavian languages moves to cause downstep. According to Holmberg (2000), Icelandic SF occurs due to the requirement that something phonologically visible must occupy [Spec, TP]. On the basis of their claims, I have proposed that exceptional movement from/into the CriP can occur only when it is required from phonology. It has been argued that though a raised category must have some unvalued feature(s) in which it should agree with a head in a raised position in the LA system, a category can move without any unvalued feature(s) in this exceptional syntactic movement.

I turn to some problems on labeling. First, it was argued in section 5 that the object pronoun must move across the negation before $\gamma\left(=\mathrm{v}^{*} \mathrm{P}\right)$ is transferred. It is most likely that in (5a), the object pronoun den moves and lands somewhere above the negation inte and below T. It is not clear how to label the projection in which the object pronoun is adjoined. The object pronoun does not agree in any feature with any head in the raised position; in fact, no head with which the object pronoun might agree is present. The same problem generally occurs in the projection in which the adverb merges. In (5a), it is not clear how to label $\beta$, the projection in which the negation inte merges to $\gamma$. The adverb in general does not agree in any feature with any head in the merged position; and
no head with which the adverb might agree is present. ${ }^{19}$
Secondly, it is unclear how to label $\beta$ in (8) after the sentence adverb sennilega moves out. A possible way would be to take the phase head $\mathrm{v}^{*}$ and label it $\mathrm{v}^{*}$ P. But LA would have to look inside $\gamma\left(=\mathrm{v}^{*} \mathrm{P}\right)$, crossing the external argument, pro. The pronominal subject is phonetically empty in this case, but it is not clear whether LA can search a candidate label across a category that is normally a maximal projection. I leave these problems on labeling for future research.

Finally, the argument in this paper suggests that there is no movement in the phonological component. As stated at the end of section 2, within the phase framework until Chomsky (2008), it was assumed that movement is allowed to occur in syntax only when a new semantic effect is produced. The movement that does not affect any semantic change was assumed to occur in phonology by assumption. In the new LA system, any category can move in syntax regardless of whether a semantic change occurs or not, though a raised category must have some unvalued feature(s) in which it agrees with a head in a raised position. We have argued that the kind of movement that does not affect any semantic change such as Scandinavian OS and Icelandic SF is formulated as exceptional syntactic movement required from phonology in which a category moves without any unvalued feature(s) (in which it should agree with a head in a raised position). Thus, there is no movement in phonology: any kind of movement should occur in syntax. ${ }^{20}$

[^22]
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# The Voice-adjunction theory of agentive 'by'-phrases and the Icelandic impersonal passive ${ }^{*}$ 

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#### Abstract

We investigate 'by'-phrases in the Icelandic impersonal passive and argue that they are grammatical, contra previous reports in the literature. However, it is only acceptable to use them when there are agent-specific pressures to realize the agent on the linear right, i.e., when the agent expresses new information or when it is phonologically heavy. We develop a formal analysis in the spirit of the Voiceadjunction theory of 'by'-phrases and consider facts from historical syntax.


## 1 Introduction

This paper investigates agentive 'by'-phrases in Icelandic impersonal passives and it argues that such phrases are syntactically well-formed contra what previous reports in the literature suggest. We show evidence that the acceptability of 'by'phrases in this environment is affected by the discourse status of the agent and its phonological weight. When the agent expresses new information and/or if it is phonologically heavy, there is an independent pressure to realize it to the linear right and then a 'by'-phrase becomes a more natural syntactic strategy.

In recent work by Bruening (2013), it is argued that agentive 'by'-phrases (as well as certain other types of adjuncts) syntactically select for a VoiceP adjunction site. According to this theory, the distribution of 'by'-phrases is crucially constrained by the syntactic distribution of the agent-introducing head Voice (Kratzer 1996). This accounts for the phenomena discussed by Bruening, but it raises questions about 'by'-phrases in languages like Icelandic that allow impersonal passives of unergatives (1) and of agent-associated verbs with a PP complement (2). Here,

[^23]the agent is suppressed and there is a passive participle with passive morphology but no theme can be raised to grammatical subject status. Note that the expletive $b a ð$ in these examples is a first-position element, not overtly present when other elements topicalize or when the verb moves to form a yes-no question.
(1) Pað var dansað.
there was danced
'Somebody danced.'
(2) Pað var borgað undir konuna. there was paid under the.woman
'Somebody paid for the woman.'
Those verbs are associated with agents and therefore, in the absence of an independent explanation, their impersonal passive should be compatible with a 'by'phrase under Bruening's account. If 'dance' is syntactically compatible with agentive VoiceP, which is uncontroversial, and if impersonal passives of unergatives are available, as in Icelandic, a by-phrase in that context should most obviously be grammatical. Yet, the 'by'-phrase in (3) is reported as ungrammatical by H.Á. Sigurðsson (1989:322), a judgment confirmed by other Icelandic speakers, at least when the example is presented out of the blue (see also Maling 1987:7, Thráinsson 2007:270, Jónsson 2009:294). ${ }^{1}$

[^24](i) a. Pað var gripinn einhver nemandi (?*af kennaranum). there was caught some student.NOM (?*by the.teacher) 'Some student was caught.'
(Thráinsson 2007:272)
b. Pað var laminn lítill strákur (??af óknyttadrengjum). there was beaten little boy.nOM (??by bullies).
'A little boy was beaten by bullies.'
(Eythórsson 2008:179)
The grammaticality of 'by'-phrases in the New Impersonal Passive (NIP) as shown in (ii) has also been debated (see, e.g., Maling and Sigurjónsdóttir 2002; Jónsson 2009, E.F. Sigurðsson and Stefánsdóttir 2014). The acceptability of the NIP seems to be reduced if a 'by'-phrase is used
(3)

Pað var dansað (*af öllum).
there was danced (*by everyone)
'Somebody danced.'
Results from a survey conducted in 2010-2012 in the project Linguistic change in real time in Icelandic phonology and syntax (Höskuldur Thráinsson, PI) also corroborate this. A vast majority of speakers rejected the sentence in (4): 160 (81\%) speakers rejected it, 28 (14\%) found it questionable, and only $9(5 \%)$ accepted it. ${ }^{2}$
(4) Previous discourse: 'There was a lot of fun in the party.'

Pað var dansað [af gestunum] fram á morgun. there was danced [by the.guests] until morning
'There was dancing by the guests until morning.'
However, 'by'-phrases do sometimes appear in impersonal passives, including in carefully crafted language, as in (5) by writer (and Nobel laureate) Halldór Laxness (here the subject gap of the impersonal licenses stylistic fronting of the passive participle; see Maling 1980).
...borgað hafi verið undir konuna [af mormónum]
...paid had been under the.woman [by Mormons]
'... [that] some Mormons paid for the woman.' (Laxness 1957:8; see also Árnadóttir to appear)
(Maling and Sigurjónsdóttir 2002, Jónsson 2009).
(ii) \%Pað var skoðað bílinn af bifvélavirkjanum.
\%there was inspected the.car.ACC by the.car.mechanic
'The car mechanic inspected the car.'
(Maling and Sigurjónsdóttir 2002:119)
The reason why 'by'-phrases are degraded in impersonal passives, transitive expletive passives and the NIP may be connected with the lack of DP-movement (Eythórsson 2008 and Jónsson 2009). We will not look further at the transitive expletive passive and the NIP in this paper but future research should investigate whether the ideas that are developed here can be extended to these as well. For further discussion on the NIP, see, e.g., Barðdal and Molnár (2003), Eythórsson (2008), H.Á. Sigurðsson (2011), E.F. Sigurðsson (2012), Ingason et al. (2013), Legate (2014), and Maling and Sigurjónsdóttir (2015).
${ }^{2}$ Thanks to Höskuldur Thráinsson for giving us access to the project's results.

Icelandic speakers find examples like these acceptable as confirmed by Árnadóttir's (to appear) survey - which appears to contradict what the literature suggests.

The main point of this paper is that the apparent contradictions in judgments are explained if the active voice is the default mechanism to express an agent and that an impersonal passive with a 'by'-phrase is only available if there are agentspecific pressures from discourse context and/or phonology to express the agent on the linear right. The fact that 'by'-phrases are more readily available in canonical passives is then possibly related to theme-specific pressures from discourse and phonology (or such pressures on other non-agentive arguments in general). Note that no theme can be promoted to subject in unergatives or out of a PP complement and such pressures are therefore irrelevant in impersonal passives.

## 2 Formal analysis

We will adopt the crucial Voice-adjunction ingredient in Bruening's analysis of 'by'-phrases with some technical adjustments. In this kind of an analysis, syntactic selection for a certain category is crucial, not only for complements and specifiers, but also for adjuncts. An unergative verb like 'dance' can combine with Voice and in the active, the Voice head requires a specifier of category $D$ as in (6). Notationally, a subscript D in curly brackets indicates this requirement following Schäfer (2008) and Wood (2015). Empty curly brackets express the absence of a specifier requirement. We adopt standard event semantics. Important nodes in the tree are annotated with semantic type. The type signature e is for an individual whereas $\langle\mathrm{s}, \mathrm{t}\rangle$ is a function from events to truth values.


The Voice head yields the interpretation that the noun phrase in its specifier expresses the agent of the event described by its complement. Its type signature is $\langle\langle\mathrm{s}, \mathrm{t}\rangle,\langle\mathrm{e},\langle\mathrm{s}, \mathrm{t}\rangle\rangle\rangle$. A formal denotation is given in (7). The denotation abstracts away from the Event Identification operation in Kratzer's (1996) implementation; the difference between using Functional Application and Event Identification is not important for the present study.
(7) $\llbracket$ Voice $\rrbracket=\lambda \mathrm{P}_{\langle\mathrm{s}, \mathrm{t}\rangle} \cdot \lambda \mathrm{x} . \lambda \mathrm{de} \cdot \mathrm{P}(\mathrm{e}) \wedge \operatorname{agent}(\mathrm{x}, \mathrm{e})$

In the passive, we assume a specifierless Voice, shown in (8). The semantics is blind to the specifier requirement in our analysis and therefore the same denotation is inserted for the passive Voice head. ${ }^{3}$


The agent can be provided in the passive by merging a 'by'-phrase adjunct with VoiceP. For concreteness, 'by' is the realization of the morpheme (=head) in (9). Like any other morpheme, $\mathrm{P}_{\text {by }}$ is a partial function from feature keys to feature values (based on the formal definition of a morpheme in Ingason 2016:17), its label is P , it selects a D complement, and it selects an adjunction site of type Voice

[^25]for itself to attach to. We refer to this adjunction type of merge as Target Merge; this is similar to how adjunction works for Bruening (2013).
(9) $\mathrm{P}_{\text {by }}=\{\langle\mathrm{LAB}, \mathrm{P}\rangle,\langle\mathrm{COMP}, \mathrm{D}\rangle,\langle\mathrm{TARG}$, Voice $\rangle\}$

Target Merge is characterized by the fact that the selectee projects rather than the selector. We hypothesize that any other empirical properties of adjunction result from the mechanics of Target Merge. For example, this operation may be best characterized by a placeholder analysis - see (10) - the adjunct being constructed in a separate workspace and not being retrieved for realization at the interfaces with LF and PF until it is needed (Ingason 2016; Ingason and Sigurðsson 2017 [forthcoming]). That would account for phenomena that are sometimes analyzed in terms of Late Adjunction (Lebeaux 2000; Stepanov 2001); see also Ingason and Sigurðsson (cited above) on adjunct invisibility in morphological suffixation phenomena. Such empirical phenomena provide independent motivation for an operation like Target Merge being fundamentally distinct from canonical Merge.



The 'by' morpheme is just syntactic glue in our analysis. It makes the agent noun phrase available for semantic composition with Voice but the P itself is semantically vacuous.

$$
\begin{equation*}
\llbracket \mathrm{P}_{\mathrm{by}} \rrbracket=\lambda \mathrm{x} . \mathrm{x} \tag{11}
\end{equation*}
$$

In a passive without a 'by'-phrase, the agent role is provided via existential closure. A dissociated LF morpheme ExCl is attached to VoiceP at the LF interface - schematized in (12). This mechanism is parallel to the insertion of dissociated

AGR nodes at the PF interface (Embick 1997). The resulting LF is shown in (13) and the denotation of ExCl in (14).
(12) $\quad[$ VoiceP $] \rightarrow[E x C l$ VoiceP $]$

(14) $\llbracket \mathrm{ExCl} \rrbracket=\lambda \mathrm{P}_{\langle\mathrm{e},\langle\mathrm{s}, \mathrm{t}\rangle\rangle} \cdot \lambda \mathrm{e} . \exists \mathrm{x}[\mathrm{P}(\mathrm{x})(\mathrm{e})]$

This analysis, which is inspired by important ingredients of Bruening's (2013) account, predicts that the syntactic distribution of 'by'-phrases reflects the distribution of agent-introducing Voice heads. To account for the fact that 'by'-phrases are often not very good in impersonal passives of unergatives and verbs that take a PP complement, an independent explanation is needed. We propose that in such cases, the speaker defaults to using the active variant, only resorting to an impersonal with a 'by'-phrase when there are independent agent-specific pressures to realize the agent on the linear right. We hypothesize that the independent pressures in question are the tendency to place new information to the right as well as elements that are phonologically heavy.

## 3 New information and heaviness

In the introduction, we showed that 'by'-phrases in impersonal passives are sometimes described as ungrammatical, even though there also seem to exist examples where such phrases are well-formed. This section elaborates on the view that the acceptable cases involve agents that express new information and/or are phonologically heavy. Consider first canonical passivization in the case of a transitive verb
like 'eat', schematized in (15). The choice of a passive without a 'by'-phrase can be motivated by a need to change the status of the agent relative to the theme, by any theme-specific pressures to place the theme in the first position or by agentspecific pressures to place the agent at the end of the clause. The variant with the 'by'-phrase is subject to more or less the same types of preferences. The agent in the 'by'-phrase can be seen as somehow demoted to an adjunct relative to the theme, and this allows the theme, of course, to raise to the subject position on the left side of the sentence.

## a. AGENT ate THEME.

b. THEME was eaten (by AGENT).

Contrast the above with a schematized alternation between an active of an unergative and an impersonal passive variant in (16).
(16) a. AGENT walked.
b. There was walked (by AGENT).

The choice of an impersonal without the 'by'-phrase can of course be motivated by a need to suppress the agent. However, what might motivate the use of an impersonal passive with a 'by'-phrase? Theme-specific pressures are irrelevant and so are any reasons one might want to demote the agent relative to the theme because there is no theme in the sentence. One plausible reason for choosing the construction in (16b) is the presence of some agent-specific pressures to realize the agent on the linear right. ${ }^{4}$ Let us see how this is borne out.

Turning to constructed examples which illustrate factors which influence the availability of a 'by'-phrase in an impersonal passive in Icelandic, it is very odd to use a 'by'-phrase to express an agent in an impersonal passive if the agent is an established discourse referent as in (17a). Here, it is much more natural to use the

[^26]active voice variant (17b). ${ }^{5}$
(17) Context: What did the central bank do when inflation went up?
a. ??Раð var stigið á bremsurnar [pp af Seðlabankanum]. ??there was stepped on the.breaks [pp by the.central.bank] 'The Central Bank hit the breaks.'
b. [dp Seðlabankinn] steig á bremsurnar. [DP the.central.bank] stepped on the.breaks
'The Central Bank hit the breaks.'
However, as predicted by our analysis, (17a) is improved if the preceding discourse does not mention the agent and if it cannot be easily recovered from the context; see (18a). This is compatible with the tendency of new information to appear to the right, an effect that has in fact been associated with 'by'-phrases in canonical passives (Seoane 2012) so it is unsurprising to find signs of it in impersonal passives. ${ }^{6}$
(18) Context: What happened when inflation went up?
a. (?)Pað var stigið á bremsurnar [pp af Seðlabankanum]. (?)there was stepped on the.breaks [pp by the.central.bank]
'The Central Bank hit the breaks.'
b. [Dp Seðlabankinn] steig á bremsurnar.
[DP the.central.bank] stepped on the.breaks
'The Central Bank hit the breaks.'
Furthermore, if we still have a new agent and also make it super-heavy, the preference between an impersonal passive and an active is reversed; (19a) is more natural than (19b). This is consistent with the view that when a choice can be made (here

[^27]between an active/passive), there is a tendency to place long phrases at the end of clauses (e.g., Wasow 1997, Stallings et al. 1998).
(19) Context: What happened when the inflation went up after the wall fell?
a. Pað var stigið á bremsurnar [pp af sameinuðum seðlabanka there was stepped on the.breaks [pp by united central.bank Austur- og Vestur- býskalands].
East- and West- Germany]
'The united Central Bank of East- and West Germany hit the breaks.'
b. ?[DP Sameinaður seðlabanki Austur- og Vestur- Pýskalands] ?[Dp united central.bank east and west Germany] steig á bremsurnar.
stepped on the.breaks
'The united Central Bank of East- and West Germany hit the breaks.'
The only relevant difference between $(18 a) /(18 b)$ and $(19 a) /(19 b)$ is the phonological weight of the agent. ${ }^{7}$ Therefore, it appears that phonological weight is an independent type of pressure to prefer the variant with a 'by'-phrase, in addition to the agent expressing new information. This contrast is based on our own intuitions. Because it is complicated to simultaneously control weight and discourse status, it should of course be noted that further empirical work is needed to test the robustness of these patterns. We believe that the proper avenue of such investigation involves experimental methods and we plan to undertake such studies in future work. In any case, the current proposal makes clear falsifiable predictions.

Before concluding, let us consider the alternative possibility, to be rejected, that the attested variability in judgments has an historical explanation.

[^28]
## 4 Against a historical explanation

We have considered examples that are compatible with our view that discourse status of the agent and its phonological weight are important factors in making 'by'-phrases available in the Icelandic impersonal passive. Let us rule out the alternative that the variation in judgments is in fact related to ongoing historical change. Looking at the IcePaHC corpus (Wallenberg et al. 2011), which spans the history of Icelandic writing, we find examples of 'by'-phrases in impersonal passives from all periods, including the 13th century example in (20) from Porláks saga helga. ${ }^{8}$ Such examples are sporadic but they appear to be genuine. For more discussion and similar examples from IcePaHC, see Árnadóttir et al. (2011:73, note 40).
(20) En guðs kristni hefir lengi eflst og magnast og but god's Christianity has long become stronger and intensified and vaxið vandi lærðra manna fyrir boðorða sakir af pví að pá grown difficulty learned men for ordinances sake because that then var eigi um pað mjög vandað [pp af yfirboðum] pótt prestar was not about that very moralized [pP by authorities] although priests fengi ekkna en nú er pað fyrirboðið.
got widows but now is it forbidden
'But God's Church has long grown strong and increased in might, and the obligations of learned men have also grown in terms of ordinances, because then not much fault was found by the authorities even if priests married widows, but now that is forbidden. ${ }^{9}$

Let us mention one methodological note: Although the corpus, a parsed phrase structure treebank, is based on modernized spelling, it should be noted that once

[^29]an example is found in the treebank, it is not difficult to trace it back to its source. For example, the example in (20) appears as in (21) in the manuscript.


Although there is no period where 'by'-phrases with impersonal passives are common in the corpus, sporadic examples are found during all periods of written Icelandic. Thus we believe that historical change is not a likely explanation for the judgment differences reported above. The pattern seems to be diachronically stable which makes it less likely that there are sharp differences between speakers.

## 5 Conclusion

At the outset of this paper we noted that examples like (3), repeated as (22), have been taken as evidence that 'by'-phrases are not compatible with impersonal passives in Icelandic. However, we have shown that the use of such 'by'-phrases is in fact acceptable under certain conditions which depend on discourse context and phonological weight.
(22) Pað var dansað (*af öllum). there was danced (*by everyone)
'Somebody danced.'
Our findings suggest it might be wise to revisit empirical differences that have been reported between languages; 'by'-phrases in impersonal passives are reported as grammatical in Dutch (Perlmutter 1978:168) and German (Schäfer 2012:230) whereas reports for Norwegian are mixed. Hovdhaugen (1977), cited in Åfarli (1992), believes that 'by'-phrases in Norwegian impersonal passives tend to be quite bad whereas according to Åfarli (1992:28, note 11) they cannot be considered
ungrammatical. Phrases of this type are considered ungrammatical in the Swedish s-passive (Engdahl 2006:38). Perhaps the factors that we have discussed in the context of Icelandic will also prove to be relevant for some other languages. We have focused on the role of new information and phonological weight but it is of course also possible that other interpretive factors will turn out to be important, including the semantic type of the agentive noun phrase (Sigurðsson 2017 [forthcoming]); see also Roberts (1985:546-547, note 10) on the notion of plurality in the context of 'by'-phrase acceptability in impersonal passives in German and Dutch.

The findings are also interesting because the role of discourse and phonology in these data looks like the psychological factors that often condition intra-speaker variability in individuals ("p-conditioning" in the sense of Tamminga et al. 2016). We might expect discourse status and heaviness to shift the probability of using a particular construction - perhaps due to cognitive restrictions on the processing of sentences in context - yet they seem to arbitrate facts that the literature reports as grammaticality contrasts.

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# Testing agreement with nominative objects 

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#### Abstract

This paper reports on the results of two large-scale surveys of syntactic variation in Icelandic where number agreement with nominative objects was tested among many other syntactic phenomena. The surveys included altogether 16 sentences with two choices and 15 individual examples relating to number agreement with nominative objects. The surveys had a total of $1486(772+714)$ participants, making them by far the biggest studies of number agreement with nominative objects in Icelandic that have ever been carried out. Both nominative objects in the strict sense (mono-clausal nominatives) were tested as well as high nominatives in infinitival clauses or small clauses (embedded nominatives). Although most speakers allow both agreement and non-agreement with nominative objects, the results show that number agreement is more common with mono-clausal nominatives than embedded nominatives. It is also shown that a dative plural subject between the finite verb and the nominative object in expletive sentences does not have a negative effect on number agreement. Another important result is that number agreement improves if (a) the plural form of the verb is common, or (b) the nominative argument also controls agreement on a predicative adjective. On the other hand, number agreement is degraded if the plural form is very different from the corresponding singular form.


## 1 Introduction

Number agreement with nominative objects in Icelandic has been a lively topic of discussion for the past 15 years or so (see Sigurð̀sson 1990-1991, 1996, Taraldsen 1995, Boeckx 2000, Hrafnbjargarson 2001, Holmberg and Hróarsdóttir 2003, Schütze 2003, Sigurðsson and Holmberg 2008, Bobaljik 2008, Ussery 2009, 2013, to appear, Keine 2010, Árnadóttir and Sigurðsson 2013, and Kucerova 2016). However, with the exception of Ussery (2009), all of these studies have been based on the judgments of a small number of native speakers. In this paper, I will report on the results of a large-scale study of syntactic variation in Icelandic where number agreement with nominative objects was tested among many other phenomena (see Thráinsson et al. 2013). The study was part of the research project, Variation in Icelandic Syntax (2005-2007), led by Höskuldur Thráinsson. The objective was to get an overview of syntactic variation in Icelandic and provide concrete information about particular constructions and spark ideas for future research. I will focus here on the grammatical aspects of number agreement with nominative objects but see Thráinsson et al. (2015) for a discussion of the sociolinguistic aspects. As discussed in more detail below, number agreement with nominative objects is sensitive to a number of factors, in particular the presence or absence of a clause boundary between the finite verb and the nominative object (see below).

Nominative objects are more or less restricted to clauses with a dative subject in Icelandic. Therefore, verbs that take a nominative object will be referred to here as DATNOM verbs. I will use the term nominative object to include not only examples where the nominative argument is a true object within the same clause as the dative subject, as in (1a-b), but also where the nominative is the highest argument of an infinitival clause or a small
clause, as in (1c-d). ${ }^{1}$ When a distinction needs to be made, I will use the terms mono-clausal nominative for the first type and embedded nominative for the second one.
(1)
a. Henni leiðist erfiðisvinna
she.Dat bores physical.work.NOM
'She finds physical work boring.'
b. Sigurði hefori sárnað svona framkoma

Sigurður.DAT had hurt such behaviour.NOM
'Sigurður would have been hurt by such behaviour.'
c. Mér sýnist allur maturinn vera búinn
I.DAT seem all.NOM.MASC the.food.NOM.MASC be finished.NOM.MASC.SG
'It seems to me that all the food has been eaten.'
d. Sumum finnst pessi hugmynd alveg vonlaus some.DAT find this.NOM.FEM idea.NOM.FEM completely hopeless.NOM.FEM.SG 'Some people think that this idea is completely hopeless.'

The syntactic contrast between mono-clausal and embedded nominatives correlates with a semantic difference. Mono-clausal nominatives are arguments of the verb selecting a dative subject (sárna and leiðast in (1a-b)), whereas embedded nominatives are arguments of the main predicate in the infinitival clause or small clause (búinn and vonlaus in (1c-d)). Note also that the embedded clauses in (1c-d) are arguments of the matrix verbs (sýnast and finnast).

The paper is organized as follows. Sections 2 sets the background for the following sections by reviewing some basic facts about the syntactic distribution and behavior of nominative objects in Icelandic. Section 3 presents the results of the afore-mentioned surveys of syntactic variation with respect to agreement with nominative objects. Some remarks about the comparison with previous studies are offered in section 4. Finally, the main points of the paper are summarized in section 5 .

## 2 Background

### 2.1 DAT-NOM verbs

DAT-NOM verbs can be divided into two classes, those that take monoclausal nominatives and those that take embedded nominatives. As shown by the following lists, the first class is much bigger than the second one: ${ }^{2}$

[^30](2) a. Verbs with monoclausal nominatives:
áskotnast 'get (by accident)', batna 'get better', berast 'get', bjóðast 'be invited', blöskra 'be outraged by', bragðast 'taste', falla 'like', fyrirgefast 'be forgiven', fceðast 'be born to', gefast 'be given', gremjast 'be angry at', grceðast 'gain', heppnast 'succeed', hlotnast 'receive', hugkvcemast 'get the idea of', hugnast 'like', lánast 'succeed', leiðast 'be bored', leyfast 'be allowed', liða úr minni 'forget', liðast 'be allowed', lika 'like', laerast 'learn from experience', misheppnast 'fail', mislika 'dislike', mistakast 'fail', ofbjóða 'be outraged', opnast 'open for', sárna 'be offended', sjást yfir 'overlook', svíða 'be hurt by'
b. Verbs with embedded nominatives:
finnast 'find, think', heyrast 'hear, gather', sýnast 'appear', virðast 'seem', pykja 'think, find'

Most of the verbs taking monoclausal nominatives have the middle suffix -st but these verbs form a rather heterogeneous class in many other respects. Thus, they fall into three semantic groups: (a) experiencer verbs (blöskra, leiðast, ofbjóða, sárna etc.), (b) verbs denoting success or failure (heppnast, hugkvcemast, lánast, mistakast etc.), and (c) verbs with recipient subjects (berast, hlotnast, opnast etc.). Moreover, some of the verbs listed in (2a) take nominative objects quite regularly but others do so only rarely.

All the verbs listed in (2b) have the suffix -st, except for bykja, but they differ from one another with respect to the optionality of the dative experiencer, and the possibility of selecting a finite complement clause. As discussed in section 3 below, these factors may influence the acceptability of number agreement with embedded nominatives. The optionality of the dative subject may also affect agreement with mono-clausal nominatives but this was not tested in the variation surveys because they only made use of verbs with an obligatory dative. The relevance of lexical semantics was not tested either as all the verbs taking monoclausal nominatives were experiencer verbs, except for áskotnast 'get (by accident)'.

### 2.2 Agreement

One of the most intriguing facts about DAT-NOM verbs in Icelandic is that the nominative argument may trigger number agreement with the finite verb. Since singular is the default value for number, number agreement can only be detected with plural objects:
a. Mér leiddist/leiddust æfingarnar
I.DAT bored.3SG/3PL the.exercises.NOM
'I was bored by these exercises.'
b. Henni virðist/virðast skilyrðin vera góð
she.DAT seem. $3 \mathrm{SG} / 3 \mathrm{PL}$ the.conditions.NOM.FEM be good.NOM.FEM.PL
'It seems to her that the conditions are good.'

Nominative objects trigger agreement only in number. As is well-known, person agreement is excluded as can be seen in examples where the object is first or second person plural:
a. *Honum leiðumst við öll
he.DAT bore.1PL we.NOM all.NOM
'He finds all of us boring.'
b. ?Honum leiðist við öll
he.DAT bore.3SG we.NOM all.NOM
c. ?Honum leiðast við öll
he.DAT bore.3pl we.NOM all.NOM

As shown in (4a), the finite verb cannot agree in first person with the plural nominative object. Using a third person singular or plural instead is marginally acceptable, as shown in ( $4 \mathrm{~b}-\mathrm{c}$ ). This means that DAT-NOM verbs like leiðast have only two forms in each tense (present and past), one in the singular and another in the plural. These forms will be glossed here as third person singular and third person plural since third person is the default form for person. Note that the plural form has a more limited distribution than the singular form because it only occurs optionally when a nominative object is plural.

Number agreement with a nominative object is usually optional. ${ }^{3}$ However, it is obligatory in various fixed expressions, especially if there is no auxiliary as in (5) below:
a. Mér duttu/*datt allar dauðar lýs úr höfði
I.DAT fell.3PL/3SG all.NOM.FEM.PL dead.NOM.FEM.PL lice.NOM.FEM off head 'I was completely stunned.'
b. Honum stóðu/*stóð ýmsar leiðir til boða
he.DAT stood.3pL/3SG various.NOM.FEM.PL ways.NOM.FEM for offer 'He had various options.'
c. Bess vegna féllust/*féllst peim hreinlega hendur therefore fell.3PL/3sG they.Dat simply hands.NOM 'Therefore, they just gave up.'

Note that number agreement is obligatory in (5c) even though the dative subject intervenes between the finite verb and the nominative object. As discussed further below, the variation surveys did not show any such intervention effects despite claims to the contrary in the literature.

[^31]Variation in number agreement with a nominative object was already found in Old Icelandic. This is exemplified for mono-clausal nominatives in (6) and for embedded nominatives in (7): ${ }^{4}$
(6) a. Honum líkaði stórilla aðgerðir peirra he.DAT liked.3SG very.badly actions.NOM their 'He strongly disliked their actions.'
(Svarfdæla saga, 1794)
b. Báðum konungunum líkuðu pessi andsvör both.DAT kings.DAT liked.3pl these.nOM.NEUT.PL replies.NOM.NEUT 'Both kings liked these replies.'
(Hrólfs saga, 47)
(7)
a. Beim pótti pau tíðindi mikil vera they.DAT thought.3sG these.NOM.NEUT.PL news.NOM.NEUT big.NOM NEUT.PL be 'They thought that this was big news.'
(Fóstbræðra saga, 778)
b. Gretti póttu illar spár hans

Grettir.DAT thought.3pL bad.NOM.FEM.PL predictions.NOM.FEM his 'Grettir thought that his predictions were ominous.'
(Grettis saga, 1003)
Since number agreement has been optional throughout the recorded history of Icelandic, there is no clear sense that either variant is the standard one. My intuition is that number agreement is slightly more formal than no agreement. Thus, it is likely that the participants in the two surveys to be discussed did not have any prescriptive bias towards either of the two options with nominative objects.

## 3 The two surveys of syntactic variation

With respect to nominative objects, the two variation surveys were primarily intended to test if there is any difference between mono-clausal and embedded nominatives. The results show that this is indeed the case. The surveys were also meant to check various other factors that were believed to influence number agreement but had not been properly explored in earlier work, e.g. contrasts between individual verbs or verb forms, or the effects of predicative adjective agreement with a nominative object. As discussed in more detail below, these expectations were borne out.

[^32]
### 3.1 The first survey of syntactic variation

In this survey of 772 native speakers, agreement with nominative objects was tested in 15 written sentences which included two options for the form of the finite verb, singular or plural. The participants were asked to mark the form they liked the best or mark both forms if they found them equally good. Very few selected the last option, or less than $10 \%$ in all cases. Nevertheless, the judgments of native speakers of individual sentences in variation survey 3 strongly indicate that a vast majority of them accept both number agreement as well as no agreement with nominative objects (see further in 3.2 and 3.3 below).

### 3.1.1 Monoclausal nominatives

Table 1 displays the results for agreement with mono-clausal nominatives. The numbers are arranged from highest to lowest percentage for non-agreement. Since the number of speakers who selected both options was very low in all cases, there is generally an inverse relationship between singular and plural, i.e. the higher the singular is, the lower the plural is. ${ }^{5}$

Table 1: No agreement (singular) vs. agreement (plural) with mono-clausal nominatives in survey 1

| Example | Singular | Plural | Both | Verb forms |
| :--- | :--- | :--- | :--- | :--- |
| 13 | $80,1 \%$ | $17,7 \%$ | $2,2 \%$ | hafði - höfðu (leiðst) |
| 17 | $63,6 \%$ | $29,9 \%$ | $6,5 \%$ | líkaði - líkuðu |
| 8 | $62,4 \%$ | $29,9 \%$ | $7,7 \%$ | líkaði - líkuðu |
| 19 | $62,0 \%$ | $31,5 \%$ | $6,5 \%$ | leiddist - leiddust |
| 14 | $58,9 \%$ | $34,6 \%$ | $6,5 \%$ | líkaði - líkuðu |
| 11 | $54,3 \%$ | $40,5 \%$ | $5,2 \%$ | leiddist - leiddust |
| 12 | $48,5 \%$ | $43,3 \%$ | $8,2 \%$ | áskotnaðist - áskotnuðust |

As can be seen from this table, the singular was the favored option in all the examples, although the difference between singular and plural varied significantly between examples. To some extent, the superiority of the singular might be due to the fact that singular was always shown above the plural in the test sentences in the first variation survey. There may also be a bias towards non-agreement when the two options are compared because singular forms of DAT-NOM verbs are clearly more common than plural forms. As discussed in 3.2.1 below, singular and plural are more balanced with mono-clausal nominatives when native speakers judge individual sentences without any comparison between the two forms.

Turning to the actual test sentences in the survey, we can start by looking at the three examples with the verb lika 'like': ${ }^{6}$

[^33](TC1.17) Ef henni líkaði/líkuðu ekki jólagjafirnar
fór hún aod grenja if she.DAT liked.3SG/3PL not the.Christmas.presents.NOM started she to cry 'If she didn't like the Christmas presents, she started to cry.' [63,6\%]
(TC1.8) Honum líkaði/líkuðu myndirnar en var fúll yfir bókunum he.DAT liked.3SG/3pl the.pictures.NOM but was unhappy about the.books 'He liked the pictures but was unhappy about the books.' [62,4\%]
(TC1.14) Ef peim líkaði/líkuðu ekki boltaleikirnir fóru pær í fýlu
if they.DAT liked.3SG/3pl not the.ball.games.NOM went they into bad.mood 'If they didn't like the ball games, they became upset.' [58,9\%]

The score for the singular is very similar in all these examples, presumably because they are grammatically alike in all relevant respects. They all have a dative pronoun before the finite verb, which is followed by the nominative object, with negation in between in (TC1.17) and (TC1.14). There is a contrast, though, in that (TC1.14) has a plural subject, as opposed to a singular subject in (TC1.17) and (TC1.8) (see further in 4.2).

There were three examples with leiðast 'be bored by' in the survey. One of them, (TC1.13), featured a finite auxiliary and it received the highest score for no agreement of all the mono-clausal nominatives: ${ }^{7}$
(TC1.13) Henni hafði/höfou víst leiðst svo fótboltaæfingarnar
she.DAT had. $3 \mathrm{SG} / 3$ PL apparently bored so football.exercises.NOM
'Apparently, she had found football practice so boring.' [80,1\%]
(TC1.19) Hann hafoi gaman af dönsku en honum leiddist/leiddust
he had fun from Danish but he.Dat bored.3sG/3pl
eðlisfræðitímarnir
the.physics.classes.NOM
'He enjoyed Danish but found the physics classes boring.' [62,0\%]
(TC1.11) Leiddist/Leiddust henni ekki tónleikarnir?
bored.3sG/3pl she.DAT not the.concert.NOM.PL
'Didn't she find the concert boring?' [54,3\%]
It seems that the auxiliary hafa 'have' is less likely to show number agreement with a monoclausal nominative than main verbs. A possible explanation is that the plural of hafa is höfðu (in the past tense) which has a different root vowel than the singular form (hafdi). As discussed in 3.1.2 below, similar considerations also apply to the verb finnast 'find, think'. ${ }^{8}$

[^34]Note that the dative subject (henni) between the finite verb and the nominative object in (TC1.11) does not have a negative effect on number agreement. In fact, as shown in Table 1, the score for the plural in (TC1.11) was higher than in (TC1.19) where the dative subject precedes the finite verb. As discussed in 4.3 below, examples with an intervening dative in expletive sentences point to the same conclusion.

The example that received the lowest percentage for singular and the highest for plural was the following sentence with the verb áskotnast 'get (by accident)':
(TC1.12) Honum áskotnaðist/áskotnuðust nýlega skautar sem bróðir hans
he.DAT acquired. $3 \mathrm{SG} / 3 \mathrm{PL}$ lately skates.NOM which brother his
hafði aldrei notað
had never used
'He recently got by a pair of skates that his brother had never used.' [48,5\%]
The high score for plural may be due to the fact that áskotnast has a recipient subject, in contrast to the experiencer verbs lika and leiðast. Thus, Árnadóttir and Sigurðsson (2013) claim that number agreement with a nominative object is more acceptable if the dative is a recipient or a beneficiary (with alternating verbs).

In addition to choosing between two options in the sentences illustrated above, participants in variation survey 1 were asked to evaluate two examples with mono-clausal nominatives, one with number agreement and another with no agreement. These examples are shown below. The numbers in brackets show the percentage of those who accepted each example.
(T1.032) Henni leiddist samt bókmenntatímarnir
she.DAT bored.3SG still the.literature.classes.NOM ( $63,3 \%$ )
(T1.092) Peim leiddust samt kóræfingarnar
they.DAT bored.3pl still the.choir.rehearsals.NOM $(67,5 \%)$
The results here are very different from the results for two choices shown in Table 1 in that the singular and plural are fairly even. Still, this is consistent with the findings in variation survey 3 in that there is a much smaller contrast between singular and plural when native speakers are asked to evaluate individual examples rather than contrast singular with plural.

### 3.1.2 Embedded nominatives

The results for embedded nominatives in variation survey 1 are shown in the following table:

[^35]Table 2: No agreement (singular) vs. agreement (plural) with embedded nominatives in survey 1

| Example | Singular | Plural | Both | Verb forms |
| :--- | :--- | :--- | :--- | :--- |
| 4 | $95,5 \%$ | $3,3 \%$ | $1,3 \%$ | fannst - fundust |
| 21 | $87,0 \%$ | $10,8 \%$ | $2,2 \%$ | fannst - fundust |
| 16 | $86,4 \%$ | $10,7 \%$ | $2,9 \%$ | fannst - fundust |
| 22 | $84,5 \%$ | $11,4 \%$ | $3,1 \%$ | pótti - bóttu |
| 18 | $68,6 \%$ | $25,1 \%$ | $6,3 \%$ | sýndist - sýndust |
| 9 | $63,2 \%$ | $29,5 \%$ | $7,3 \%$ | pótti - póttu |
| 24 | $59,7 \%$ | $36,1 \%$ | $4,2 \%$ | virðist - virðast |
| 6 | $52,1 \%$ | $39,9 \%$ | $8,0 \%$ | virtist - virtust |

The scores for number agreement here are clearly lower than in Table 1, especially in the first four examples in each table. For these examples, the selection rate for number agreement with monoclausal nominatives ranges from $17,7 \%$ to $31,5 \%$ compared to $3,3 \%$ to $11,4 \%$ with embedded nominatives.

As shown in Table 2, number agreement is least acceptable with the past tense of the verb finnast 'find, think'. The examples are shown below:
(TC1.4) Honum fannst/fundust peir gera of mikið úr málinu he.DAT thought. $3 \mathrm{SG} / 3$ PL they.NOM do too much from the.case 'He thought that they overracted to the case' [95,5\%]
(TC1.21) Henni fannst/fundust peir skemmtilegir
she.DAT thought.3SG/3PL they.NOM.MASC amusing.NOM.MASC.PL
'She found them amusing' [87,0\%]
(TC1.16) Henni fannst/fundust pær vera sniðugar
she.DAT thought.3SG/3PL they.NOM.FEM be clever.NOM.FEM.PL
'She thought they were clever' [86,4\%]

The reason for this high score in the singular of finnast may be that the plural form fundust (in the past tense) is very different from the singular fannst as the former is bisyllabic and has a different shape of the root (i.e. fund- vs. fann-). In all the other examples in Table 2, the singular and the plural form have an equal number of syllables in singular and plural.

Both (TC1.21) and (TC1.16) got a higher percentage for plural and lower for singular than (TC1.4). This is probably due to the fact that the former examples contained a predicative adjective agreeing with the embedded nominative. Thus, it appears that if an embedded nominative controls adjective agreement, it is more likely to trigger agreement with the finite verb in the matrix clause. ${ }^{9}$ This effect is also quite evident in the examples with pykja 'think, find':

[^36](TC1.22) Honum pótti/bóttu peir hafa farið yfir strikið
he.DAT thought.3SG/3PL they.NOM have gone over the.limit
'He felt that they had overstepped the limit.' [84,5\%]
\[

$$
\begin{array}{ll}
\text { (TC1.9) } & \text { Henni pótti/póttu samt glæpasögur } \\
& \text { she.DAT thought.3SG/3PL still crime.stories.NOM.FEM most.fun.NOM.FEM.PL } \\
& \text { 'She still found crimes stories to be the most entertaining.' }[63,2 \%]
\end{array}
$$
\]

As shown in Table 2, only 11,4\% of the participants selected plural in (TC1.22), whereas the corresponding figure for (TC1.9) was $29,5 \%$. This contrast is most plausibly explained by the presence of the superlative adjective skemmtilegastar, agreeing with the nominative object glcepasögur in gender, number and case in (TC1.9).

The following two examples with virðast 'seem' were tested in variation survey 1:
(TC1.24) Pað virðist/virðast samt mörgum bessir bílar
there seem. $3 \mathrm{SG} / 3 \mathrm{PL}$ still many.DAT these.NOM.MASC.PL cars.NOM.MASC
vera mjög eftirsóknarverðir
be very attractive.NOM.MASC.PL
'These cars seem to many to be very attractive.' [59,7\%]
(TC1.6) Honum virtist/virtust allar sjónvarpsstöðvarnar vera
he.DAT seemed.3SG/3PL all.NOM.FEM.PL the.TV.stations. NOM.FEM be lélegar
bad.NOM.FEM.PL
'All the TV stations seemed to him to be bad.' [52,1\%]
These examples differ in that the dative subject in (TC1.6) is clause-inital whereas (TC1.24) has a low dative subject between the finite verb and the nominative object. Still, these examples received the highest score for plural (and lowest for singular) of all the embedded nominatives in variation survey 1 . The reason may be that virðast is very often used without a dative experiencer, in which case the nominative argument undergoes raising to the matrix subject position (cf. Allar sjónvarpsstöðvarnar virtust vera lélegar 'All the TV stations seemed to be bad') and triggers number agreement obligatorily. As a result, the plural form of the verb is very frequent and far more common e.g. than the plural form of finnast 'find'.

The survey featured one example with the verb sýnast 'appear'. This example had agreement with a predicative adjective:
(TC1.18) Honum sýndist/sýndust pær frekar djúpar
he.DAT seemed.3sG/3PL they.NOM.FEM rather deep.NOM.FEM.PL
'It seemed to him that they were rather deep.' [68,6\%]
As shown in Table 2, sýnast occupies an intermediate position between finnast and virðast with respect to number agreement. This is expected since sýnast has a minimal difference
between the singular and plural form, unlike finnast, but it is less common than virðast as a raising verb with a nominative subject. I think the same line of reasoning applies to the example with pykja in (TC1.9). Note, however, that the dative experiencer is obligatory with finnast (cf. *Ber fundust vera sniðugar 'They were considered clever'). Arguably, this is another reason why number agreement with finnast is so strongly dispreferred.

### 3.2 The third survey of syntactic variation

In this survey, 714 native speakers were presented with 14 sentences with nominative objects which they were asked to judge as acceptable, dubious or impossible. To make it easier to compare agreement with non-agreement, the test sentences were constructed in pairs where singular contrasted with plural but other known factors were kept constant. The results show that non-agreement is strongly preferred to agreement with embedded nominatives whereas the two options are roughly equal with mono-clausal nominatives. This is different from the results of variation survey 1 where non-agreement dominated agreement in all contexts. Presumably, this difference stems from the fact that the participants in survey 3 were not asked to compare two options. When such a comparison is involved, as in survey 1 , native speakers have a strong bias for non-agreement, which does not seem to match their grammar. Thus, the methodology of survey 3 is probably better suited for the study of agreement with nominative objects.

### 3.2.1 Monoclausal nominatives

The results for the mono-clausal nominatives are shown in the following table. In all the sentence pairs below, the singular is shown before the plural. ${ }^{10}$

Table 3: No agreement (singular) vs. agreement (plural) with mono-clausal nominatives in survey 3

| Example | Yes | $?$ | No | Verb forms |
| :--- | :---: | :---: | :---: | :--- |
| L21 | $63,4 \%$ | $18,8 \%$ | $17,8 \%$ | leiddist - singular |
| L7 | $74,6 \%$ | $15,6 \%$ | $9,8 \%$ | leiddust - plural |
| 21 | $73,2 \%$ | $12,5 \%$ | $14,3 \%$ | hefur (leiðst) - singular |
| 4 | $65,3 \%$ | $16,1 \%$ | $18,6 \%$ | hafa (leiðst) - plural |
| 30 | $41,5 \%$ | $22,2 \%$ | $36,3 \%$ | hefur (blöskrað) - singular |
| 74 | $51,7 \%$ | $22,1 \%$ | $26,2 \%$ | hafa (blöskrað) - plural |

The acceptance rate in all these examples is above $50 \%$, except for (T3.030). This suggests that many speakers freely allow both agreement and non-agreement with mono-clausal nominatives.

The examples with leiðast as the finite verb showed a relatively small difference in favor of the plural:

[^37](L3.21) Henni leiddist samt píanótímarnir alveg rosalega
she.DAT bored.3SG still the.piano.lessons.NOM quite terribly
'Still, she was bored to death by the piano lessons.' [63,4\%]
(L3.7) Henni leiddust tónleikarnir mjög mikið she.DAT bored.3PL the.concert.NOM.PL very much 'She was really bored by the concert.' [74,6\%]

With the addition of the auxiliary hafa 'have' the facts are reversed. The singular is a little higher than the plural:
(T3.021) Honum hefur alltaf leiðst langir stjórnarfundir
he.DAT have.3SG always bored long.NOM.MASC.PL board.meetings.NOM.MASC
'He has always found long board meetings boring.' [73,2\%]
(T3.004) Henni hafa alltaf leiðst langar bíómyndir
she.DAT have.3pl always bored long.NOM.FEM.PL movies.NOM.FEM
'She has always found long movies boring.' [65,3\%]

The examples with blöskra 'be outraged' featured a low dative subject between the finite verb and the nominative object:
(T3.030) bað hefur sumum blöskrað pessir samningar
there have.3sG some.DAT outraged these.NOM.MASC.PL contracts.NOM.MASC
'Some people have been outraged by these contracts.' [41,5\%]
(T3.074) bað hafa mörgum blöskrað pessi ummæli
there have.3PL many.DAT outraged these.NOM.NEUT.PL remarks.NOM.NEUT
'Many people have been outraged by these remarks.' [51,7\%]

The acceptance rate for the agreement in (T3.074) is higher than for the non-agreement in (T3.030) despite the low dative subject in both examples (see 4.3 below). I think that the acceptability of both examples is reduced by the fact that the expletive sentences are often rejected in judgment tasks but the problem is more acute in (T3.030) because the quantifier sumir 'some' is less natural as a low subject than margir 'many'. This is probably because sumir only has a presuppositional reading, i.e. it can only denote some members of a specific group whereas margir is ambiguous between an existential reading (a high number) and a presuppositional reading (many from a specific group).

The participants in variation survey 3 were asked to compare singular and plural in the following example:
(TC3.10) Honum sárnaði/sárnuðu pessar athugasemdir
he.DAT hurt.3SG/3PL these.NOM.FEM.PL comments.NOM.FEM.PL
'He was hurt by these comments.'

The singular was selected by $67,7 \%$, the plural by $28,4 \%$ and both options by $3,9 \%$ of the participants. These numbers are very similar to the numbers in Table 1, as one would expect since they stem from same methodology.

### 3.2.2 Embedded nominatives

The results for the embedded nominatives in survey 3 are illustrated in the following table. As in Table 3, the singular is ordered before the plural in all the sentence pairs.

| Table 4: | No agreement (singular) | vs. agreement (plural) with embedded nominatives in |  |  |
| :--- | :---: | :---: | :---: | :--- |
| survey 3 |  |  |  |  |
| Example | Yes | $?$ | No | Verb forms |
| 69 | $89,0 \%$ | $6,1 \%$ | $4,9 \%$ | fannst - singular |
| 57 | $43,0 \%$ | $17,3 \%$ | $39,7 \%$ | fundust - plural |
| 16 | $82,7 \%$ | $7,5 \%$ | $9,8 \%$ | hefur (fundist) - singular |
| 85 | $63,3 \%$ | $14,8 \%$ | $21,9 \%$ | hafa (fundist) - plural |
| 112 | $81,7 \%$ | $9,5 \%$ | $8,8 \%$ | sýnist - singular |
| 100 | $48,7 \%$ | $17,6 \%$ | $33,7 \%$ | sýnast - plural |
| 35 | $52,4 \%$ | $24,5 \%$ | $23,1 \%$ | heyrðist - singular |
| 47 | $61,6 \%$ | $19,7 \%$ | $18,7 \%$ | sýndust - plural |

As in variation survey 1, number agreement is generally less acceptable with embedded nominatives than mono-clausal nominatives. Thus, in contrast to the mono-clausal nominatives shown in Table 3, the singular has a much higher acceptance rate than the plural in the first three sentence pairs. In the last pair, the plural outscores the unexpectedly low singular (see further below).

Just as in the first variation survey, the biggest difference between singular and plural is with the past tense of finnast:
(T3.069) Henni fannst pær mjög skemmtilegar she.DAT thought.3SG they.NOM.FEM very joyful.NOM.FEM.PL 'She thought that they were a lot of fun.' [89,0\%]
(T3.057) Henni fundust pær frekar leiðinlegar
she.DAT thought.3PL they.NOM.FEM rather boring.NOM.FEM.PL
'She thought that they were rather boring.' [43,0\%]
Adding the auxiliary hafa 'have' to examples with finnast makes number agreement more acceptable than in (T3.057), presumably because the plural of hafa (in third person present tense) is a very common inflectional form:
(T3.016) Beim hefur alltaf fundist spurningabættir skemmtilegir they.DAT have.3SG always found quiz.shows.NOM.MASC fun.NOM.MASC.PL 'They have always found quiz shows to be entertaining.' [82,7\%]
(T3.085) beim hafa alltaf fundist óvissuferðir skemmtilegar they.DAT have.3PL always found surprise.trips.NOM.FEM fun.NOM.FEM.PL 'They have always found surprise trips to be entertaining.' [63,3\%]

With the verb sýnast, there is a very clear difference between singular and plural, although it is smaller than with finnast:
(T3.112) Mér sýnist starfsmennirnir hafa staðið sig vel I.DAT seem.3SG the.workers.NOM have performed well 'It seems to me that the staff has done a great job.' [81,7\%]
(T3.100) Mér sýnast nemendurnir hafa rétt fyrir sér I.DAT seem.3pL the.students.NOM have right for themselves 'It seems to me that the students are right.' [48,7\%]

As discussed in 3.1.2, the verb form fundust (of finnast) has the lowest score for plural agreement because it is quite different from the corresponding singular (fannst) and also because finnast is never used as a raising verb with a nominative subject. These two factors separate finnast very clearly from sýnast. Thus, the relatively small difference between the plural in (T3.100) and (T3.057) is probably due to the fact that the embedded nominative in the latter example controls agreement on a predicative adjective. As shown by the contrast between (TC1.22) and (TC1.9) in Table 2, this has a positive effect on the acceptability of number agreement with an embedded nominative.

The highest score for number agreement was in (T3.047), which is contrasted here with (T3.035) below due to the syntactic similarity between the two examples even though two different verbs are involved:
(T3.035) Henni heyrðist vera gangtruflanir í bílnum
she.DAT heard. 3 SG be startup.problems.NOM in the.car
'She thought she heard that the car had startup problems.' [52,4\%]
(T3.047) Honum sýndust vera jeppaslóðir í snjónum
he.DAT seemed.3pl be jeep.tracks.nOM in the.snow
'It seemed to him that there were jeep tracks in the snow.' [61,6\%]
The acceptance rate for (T3.035) is very low compared to other examples of non-agreement in Table 4. I suspect that some of the participants in the survey had difficulty imagining a scenario where they would be able to utter (T3.035), since it is usually fairly clear if a car has startup problems.

The difference between (T3.047) and (T3.100) is interesting but it may relate to the fact that the former example describes visual evidence but the latter does not. Thus, it would be more natural in (T3.100) to use a finite complement clause (Mér sýnist ad nemendurnir hafi rétt fyrir sér 'It seems to me that the students are right') instead of an infinitival clause.

### 3.3 Individual speakers

Although the main objective of the variation surveys was to get an overview of syntactic variation in Icelandic, the data collected on individual speakers can be inspected to check if they fall into different classes with respect to number agreement with nominative objects. Data from variation survey 3 indicate that an overwhelming majority of speakers accepts both agreement and non-agreement. Of all the participants in survey 3, only three never accept number agreement with a nominative object and only nine never accept non-agreement. These numbers suggest that most native speakers have intra-speakers variation between agreement and non-agreement with nominative objects. This is unsurprising as intra-speaker variation is clearly the norm with morphosyntactic variation in Icelandic as well as in Faroese (Jónsson and Eythórsson 2005, Thráinsson 2013). Still, native speakers differ in how much they prefer agreement or non-agreement with nominative objects.

The same picture emerges if speakers who exhibit uniformity in the test sentences they accept are examined. A total of 52 speakers in variation survey 3 accepted all examples with number agreement; despite this, half of them selected singular rather than plural in example (TC3.10). On the other hand, 91 speakers accepted all the examples with non-agreement but none of them rejected all the plurals. Of those 91 speakers, 69 choose singular in (TC3.10), 16 picked plural and 6 selected both options.

## 4 Comparison with other studies

The data discussed in 3.3 above indicate that very few native speakers have obligatory number agreement with nominative objects or do not allow it at all. This is at odds with the results of Sigurðsson and Holmberg (2008) who claim that speakers of one variety of Icelandic ("dialect C") generally disallow agreement with a nominative object, although they admit that their classification is something of an idealization. Inevitably, this discrepancy raises the question how our results compare to the results of other studies of agreement with nominative objects in Icelandic. As discussed in more detail below, it turns out that the results do not always match.

This section divides into three subsections, each of which focuses on one grammatical factor that in other studies has been argued to affect number agreement with a nominative object. Note, however, that these factors need not be very strong since they are often claimed to hold only for some native speakers.

### 4.1 Singular vs. plural datives

Ussery (to appear) maintains that number agreement with a nominative object is degraded for some speakers if the dative subject is singular. ${ }^{11}$ The variation surveys include only one sentence pair or triplet with number agreement where a plural subject can be contrasted with a singular subject within the same survey, i.e. (TC1.14) vs. (TC1.8) or (TC1.17) (see Table 1).

[^38]As shown in Table 1, the number agreement in (TC1.14) with a dative plural subject got a slightly higher score than the number agreement in (TC1.8) and (TC1.17), hosting a dative singular subject. On the other hand, the preferences are reversed if (T1.092) and (L3.7) are compared. Both examples feature the past plural of leiðast 'be bored' agreeing with a nominative object but they differ in that the former has a plural subject whereas the latter has a singular subject. Still, the acceptance rate for (T1.092) is $67,5 \%$ but $74,6 \%$ for (L3.7). It should also be noted that examples with a plural subject in the variation surveys do not stand out in comparison to examples with a singular subject. Hence, number of the dative subject does not seem to a factor for number agreement between the finite verb and a nominative object to judge by the data we have examined.

### 4.2 Mono-clausal vs. embedded nominatives

Ussery (2009) is the best study for comparison concerning the contrast between mono-clausal and embedded nominatives. This study was based on a test administered to 61 students at the University of Iceland who were asked to examine various examples with nominative objects and select the form of the finite verb they would most likely use in everyday speech. The most interesting result of Ussery (2009) is that seven speakers accept number agreement with mono-clausal nominatives but not with embedded nominatives but no speaker allows agreement only with embedded nominatives. Thus, there seems to be a dialect of Icelandic where number agreement is only acceptable with mono-clausal nominatives.

The results from the variation surveys 1 and 3 show that number agreement is more common with mono-clausal nominatives than embedded nominatives. Hence, the existence of such a dialect should not be surprising. In fact, data from individual speakers in variation survey 3 show that 24 participants reject all the examples of number agreement with embedded nominatives but accept at least one example of number agreement with a monoclausal nominative. In other words, these speakers reject examples (T3.057), (T3.085), (T3.100), and (T3.047) (see Table 4) but accept at least one of the following examples: (L3.7), (T3.004), and (T3.074) (see Table 3). These speakers are only 3,4\% of the 714 participants in survey 3 but they can still be characterized as allowing number agreement with mono-clausal nominatives exclusively. Note that only three participants in this survey exhibit the opposite pattern, i.e. reject all the examples of number agreement with a mono-clausal nominative but accept at least one example of number agreement with an embedded nominative.

### 4.3 Dative intervention in expletive sentences

Holmberg and Hróarsdóttir (2003) claim that number agreement with a nominative object is blocked by a low dative subject coming between the finite verb and the nominative object in expletive sentences, provided the dative is singular. This is shown by the contrast between (8a) and (8b) (from Sigurðsson and Holmberg 2008:256-257):
a. Einum málfræðingi líkaði/líkuðu pessar hugmyndir one.DAT linguist.DAT liked.3SG/3PL these.NOM ideas.NOM 'One linguist liked these ideas.'
b. Pað líkaði/*líkuðu einum málfræðingi pessar hugmyndir there liked.3sG/3pL one.DAt linguist.DAT these.NOM ideas.NOM

In contrast to Holmberg and Hróarsdóttir (2003), Sigurðsson and Holmberg (2008) and Ussery (2009) do not make a crucial distinction between singular and plural datives with respect to these intervention effects although they do not argue explicitly against it.

The variation surveys included two examples of number agreement in the presence of a dative plural intervening between the finite verb and the nominative object in expletive sentences. The first example, (TC1.24), scored the second highest selection rate for agreement of all the embedded nominatives in survey 1 (see Table 2). The other example, (T3.074), received the lowest acceptance rate for agreement among mono-clausal nominatives in survey 3 (see Table 3). However, as discussed in 3.2.1, this is not due to number agreement since the comparable expletive sentence in (T3.030) got an even lower acceptance rate than (T3.074), even though it had no agreement. Hence, the conclusion is that the variation surveys provide no evidence for dative intervention effects, at least with plural datives.

## 5 Conclusion

This paper has discussed the results of two surveys of syntactic variation in Icelandic where number agreement with nominative objects was tested along with many other syntactic phenomena. The surveys contained altogether 16 sentences with two choices and 15 individual examples relating to number agreement with nominative objects. A total of 1486 $(772+714)$ speakers participated in the surveys and this makes them by far the biggest studies of number agreement with nominative objects in Icelandic that have ever been undertaken.

The results show that number agreement is more widely accepted with mono-clausal nominatives than embedded nominatives. There is even some evidence for a dialect where number agreement is restricted to mono-clausal nominatives. Still, it is clear that a vast majority of native speakers of Icelandic allow both agreement and non-agreement in their grammar. It was also shown that a dative plural between the finite verb and a nominative object in expletive sentences does not have a negative effect on number agrement. In addition to the contrast between mono-clausal and embedded nominatives, a number of factors seem to play a role in number agreement with nominative objects in Icelandic. Thus, agreement is more likely to be accepted if (a) the plural form of the verb is common (e.g. because it occurs in raising structures with a nominative subject), or (b) the nominative also controls agreement on a predicative adjective. On the other hand, number agreement is dispreferred if the plural form of the finite verb is very different from the corresponding singular form. I think that all of these results are important but further studies are required to firmly establish the relevance of the various factors discussed here and to determine if they are a matter of grammar or language use.

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[^0]:    ${ }^{1} \mathrm{~K} \& Z$ (2014: 605) formulate a generalization of the RAH to accommodate ( $\mathrm{I}^{\circ}$-final) OV languages. The version in (1) is sufficiently precise for the purposes of this paper.

[^1]:    ${ }^{2}$ Pointers to the standard literature are provided by K\&Z (2014).

[^2]:    ${ }^{3}$ 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.

[^3]:    ${ }^{5}$ 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.

[^4]:    ${ }^{6}$ 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 $b \mathrm{EV} 2$, the other $n \mathrm{EV} 2$, 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.

[^5]:    ${ }^{9}$ 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) $\quad\left[{ }_{\mathrm{CP}}\right.$ hwor $_{\mathrm{k}} \varnothing\left[{ }_{\mathrm{CPIIP}}\right.$ jeg gich ${ }_{\mathrm{i}}\left[{ }_{\mathrm{VP}}\right.$ alltijd $\left.\left.\left.\left[{ }_{\mathrm{VP}} \mathrm{t}_{\mathrm{i}} \mathrm{t}_{\mathrm{k}}\right]\right]\right]\right]$

    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).

[^6]:    ${ }^{11}$ 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 ífyrstu, ef honum vari pat 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.'

[^7]:    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., 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 $b \mathrm{EV} 2$ to $n \mathrm{EV} 2$ must have taken place.
    ${ }^{15}$ A som-equative with fronted $n u$ ("now") has also been used by Holmberg and Platzack (1995: 86f.) to illustrate Old Swedish bEV2. Another instance is attested in Old Norse (Faarlund 2004: 251).

[^8]:    ${ }^{16}$ 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 $n \mathrm{EV} 2$ vs. $b \mathrm{EV} 2$ distinction built on an articulated split CP (cf. Rizzi 1997) and independent of matters of verbal agreement.

[^9]:    ${ }^{18}$ 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-insitu over V-to-I grammars (p.136f.). As far as I can see, the difference between determining these environments within $b \mathrm{EV} 2$ as opposed to $n \mathrm{EV} 2$ lies in speeding up the loss of V-to-I. The exact consequences of this observation remain to be explored.

[^10]:    ${ }^{1}$ For comments and useful criticism, we are grateful to the audiences of the Grammatik $i$ Fokus Colloquium, Lund, February 2014, and the Budapest-Potsdam-Lund Linguistics Colloquium, Budapest, June 2016.
    ${ }^{2}$ This follows from the criterion that MP's are limited in distribution to the sentence midfield, in a clause the edges of which are defined by V2 and OV word order.

[^11]:    3 "This use of already began to appear early in the century, (...) among immigrant Yiddish speakers living in New York who were just starting to talk English. By the 1930's it had become common usage among their children who no longer spoke Yiddish - a development that enabled it to entrench itself in the American language." (Safire 1988)
    ${ }^{4}$ However, the sociolinguistic dimension of this problem is not discussed here.

[^12]:    ${ }^{5}$ Note, however, that Abraham argues for a "monogenetic" approach to the homophonous pairs, since this "saves one assuming two separate and unrelated entries in the lexicon ..." (Abraham 2000, p. 322). Such a hypothesis is difficult to maintain for standard English already and MP already, if the latter is not actually a development from the first.
    ${ }^{6}$ MP nångång has no clear equivalent in Standard English and will not be translated in the gloss.

[^13]:    ${ }^{7}$ Admittedly, given this analysis, there is an affinity between MP already and the adverbial ALREADY. If the approach of Lee (2008) is assumed, adverbial ALREADY introduces polarity focus, contrasting the described $e$ with a possible alternative $e$. We will not enter into that discussion here.
    ${ }^{8}$ One prediction of the structure in (28) is that it should not be possible to add MP already to a directive in which a lexicalized $2^{\text {nd }}$ person subject is focused. That is to say, in DO it already!, the VP has raised to the pre-VP focus field, and therefore YOU do it already! should be ruled

[^14]:    *Many thanks to Johan Brandtler for his helpful comments to improve this paper. Part of this paper was presented at The 153 rd Meeting of the Linguistic Society of Japan, Dec 3-4, 2016. I would like to thank the audience for their helpful comments. I am responsible for any errors.
    ${ }^{1}$ See Rizzi $(2006,2010,2015)$ for an account of the CriP in terms of Criterial Freezing.

[^15]:    ${ }^{2}$ In this paper, the term Object Shift refers to weak pronoun shift only.

[^16]:    ${ }^{3}$ Hereafter, projections are notated with the label of (phase or non-phase) heads in such a way as TP, $v^{*} \mathrm{P}$, etc.
    ${ }^{4}$ The unvalued Case of the (wh-)object has already been valued in a lower Spec, which I turn to soon below.
    ${ }^{5}$ Johan Brandtler (p.c.) raises the concern that a circularity might arise in the statement here:

[^17]:    ${ }^{6}$ It is assumed that after målade/kysste $(=\mathrm{R})$ moves to $\mathrm{v}^{*}$ to become a verbal category, $\mathrm{v}^{*}$ is deleted, since $\mathrm{v}^{*}$ is an affix and invisible to LA. A question arises whether LA can find $\mathrm{v}^{*}$, which has already been deleted, as the label. I leave aside the issue on the deletion of $\mathrm{v}^{*}$ here. ${ }^{7}$ Later, I turn to some problems on labeling, e.g. how to label $\beta$, in which the negation inte merges to $\gamma$.

[^18]:    ${ }^{8}$ In Icelandic, full NPs can optionally move, which I leave aside here.
    ${ }^{9}$ The data of Icelandic SF is taken from Holmberg (2000). Holmberg refers to Jónsson (1991) for some of his data.

[^19]:    ${ }^{10}$ I leave aside the internal structure of the object noun phrase pessa bók 'this book'.
    ${ }^{11}$ See footnote 6.
    ${ }^{12}$ See footnote 7.
    ${ }^{13}$ It is plausible that the Aux hefði merges as a verbal head in a lower position and moves to T. For simplicity sake, I say here that the Aux adjoins to T.
    ${ }^{14}$ Later, I turn to the problem of how to label $\beta$ after the sentence adverb sennilega moves out.

[^20]:    ${ }^{15}$ The same argument applies to the question why it is always the external argument, not $\mathrm{v}^{*} \mathrm{P}$, that moves out; see Chomsky (2013, 2015). The external argument has an unvalued Case, which is assigned a Nom by T , whereas $\mathrm{v}^{*} \mathrm{P}$ does not have any unvalued feature(s).
    ${ }^{16}$ Hosono's account is owed to Bruce's (1977) intonation theory of Swedish. Later, I turn to the simple tense form in which the object pronoun does not move (see (4a)).

[^21]:    ${ }^{17}$ Josefsson (2003) has already claimed, with her experimental data, that OS is optional in Swedish.
    ${ }^{18}$ Due to the same reasoning here, verb movement too must occur in narrow syntax, contra Chomsky (2001). the complex verbal head målade $(=\mathrm{R})+\mathrm{v}^{*}$ could not move to T after $\gamma\left(=\mathrm{v}^{*} \mathrm{P}\right)$ is transferred; it must move before $\gamma\left(=\mathrm{v}^{*} \mathrm{P}\right)$ is transferred.

[^22]:    ${ }^{19}$ See Hornstein (2009) for an argument that adjuncts are blind to labeling. Chomsky (2013, 2015) claims that labels are necessary for the interpretation at the interfaces.
    ${ }^{20}$ See also Hosono (2013:ch.5) for a convincing argument that movement in phonology cannot be carried out in a principled way.

[^23]:    *Thanks to Hlíf Árnadóttir, Julie Anne Legate, Joan Maling, Florian Schwarz, Halldór Ármann Sigurðsson, Sigríður Sigurjónsdóttir, and Höskuldur Thráinsson for helpful comments and discussions. Thanks also to the editor, Johan Brandtler.

[^24]:    ${ }^{1}$ In this paper, we focus on impersonal passives of unergatives, as in (1), and impersonal PP passives, as in (2). However, similar restrictions on 'by'-phrases seem to hold in, e.g., transitive expletive passives without DP movement; see (i).

[^25]:    ${ }^{3}$ Here, we abstract away from the derivation of the passive morphology which is plausibly associated with the Asp head (Embick 2004).

[^26]:    ${ }^{4}$ Another potential way of thinking about the motivation for using an impersonal passive involves analyzing the event denoted by the main verb as the information-structural topic (see Árnadóttir to appear). We will not discuss such an analysis here.

[^27]:    ${ }^{5}$ In those examples, it is also a prominent option to use a pronoun to refer back to the old information 'central bank'. If we do that, the 'by'-phrase is completely unacceptable and that is consistent with our analysis. Thanks to Höskuldur Thráinsson for discussions on this issue.
    ${ }^{6}$ As shown by Sigurjónsdóttir and Nowenstein (2016), discourse status can influence the choice between a Canonical Passive and a truth-conditionally equivalent New Impersonal Passive, which is therefore another case where structural optionality in passive-like constructions is to some extent arbitrated by discourse context.

[^28]:    ${ }^{7}$ Different views exist in the literature on the appropriate way to characterize and measure heaviness for the purpose of placing elements on the right. Heaviness is sometimes associated with grammatical complexity and sometimes with the phonological length of a phrase. This is not a core issue in the present context but we describe heaviness in terms of phonological weight rather than complexity because long and syntactically simple elements generally count as heavy in the relevant type of phenomena. For example, supercalifragilisticexpialidocious is heavy rather than light; see Ingason (2015) for further discussion.

[^29]:    ${ }^{8}$ The orthography in the example is based on the edition by Ásdís Egilsdóttir (1989:121) of the so-called A-version of Porláks saga helga. This saga is believed to be from the early 13th century. We refer to the edition and related philological work cited there for further discussion of the relevant manuscripts and their dating. We believe the notion of new information is important for this particular example although we are hesitant to draw strong conclusions from our modern Icelandic intuitions about this old example. We understand the words but the flavor of the prose is quite archaic.
    ${ }^{9}$ The translation of the example is taken from Jakobsson and Clark's translation; see The saga of Bishop Thorlak (2013:4)

[^30]:    ${ }^{1}$ Embedded nominatives seem to behave like subjects of the embedded clause but objects of the matrix clause, an ambiguity reflected by the fact this construction is sometimes referred to as Subject-to-Object Raising.
    ${ }^{2}$ One could add to these lists a small class of verbs where either the dative or the nominative argument can be the subject. For a recent discussion of such alternating verbs, see Barðdal, Eythórsson, and Dewey (2014).

[^31]:    ${ }^{3}$ This is true of active sentences. Agreement with a nominative object is obligatory in passives but this was not tested in the syntactic variation surveys.

[^32]:    ${ }^{4}$ The page numbers in these examples refer to the editions of these texts that are listed in the bibliography.

[^33]:    ${ }^{5}$ The example numbers given in this paper correspond to the actual numbers of the test sentences in the two variation surveys.
    ${ }^{6} \mathrm{TC} 1$ is an abbreviation for examples with two choices in the first variation survey. For convenience, the percentage of speakers that selected the singular form of the finite verb is given in square brackets (here and elsewhere).

[^34]:    ${ }^{7}$ Note that tónleikar 'concert' is a plural word in Icelandic as shown by the glosses in (TC1.11).
    ${ }^{8}$ There is another fact about hafa that should work in the opposite direction and make number agreement more acceptable, the fact that the plural form of this verb is very common (see discussion on example (T3.085)). The

[^35]:    numbers for (TC1.13) suggest that this factor is rather weak in the past tense of hafa, which is clearly less common that the plural of the present tense.

[^36]:    ${ }^{9}$ The presence or absence of vera 'be' makes no difference here as the figures for (TC1.21) (without vera) and (TC1.16) (with vera) are virtually the same. Thus, there is no contrast here between infinitival clauses and small clauses. Note also that adjective agreement is obligatory in these examples.

[^37]:    ${ }^{10} \mathrm{~L}$ is an abbreviation for listening, i.e. examples that were played on tape to the participants.

[^38]:    ${ }^{11}$ Holmberg and Hróarsdóttir (2003) make a weaker claim as they restrict this number effect to datives in expletive sentences (see 4.3 below).

