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Beyond the Veil of Maya

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Markedness as a condition on feature sharing

1 Introduction

Germanic languages, like many other languages, show a distributional gap in the inventory of pronouns: only third person pronouns distinguish gender. This is illustrated for English, Dutch, German, and Icelandic in *Table 1*: English, Dutch and German only show gender distinctions in the third person singular; in Icelandic, gender is distinguished in the third person singular and plural.

Table 1: Pronouns in English, Dutch, German, and Icelandic

	English	*Dutch*	*German*	*Icelandic*	
1.SG	*I*	*ik*	*ich*	*ég*	
2.SG	*you*	*jij*	*du*	*þú*	
3.MASC.SG	*he*	*hij*	*er*	*hann*	
3.FEM.SG	*she*	*zij*	*sie*	*hún*	
3.NEU.SG	*it*	*het*	*es*	*það*	
1.PL	*we*	*wij*	*wir*	*við*	
2.PL	*you*	*jullie*	*ihr*	*þið*	
3.PL	*they*	*zij*	*sie*	MASC:	*þeir*
				FEM:	*þær*
				NEUT:	*þau*

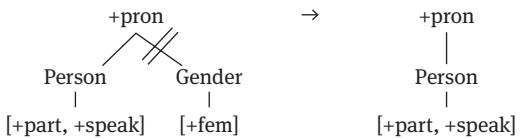
Calabrese 2011 proposes a markedness approach to distributional gaps in paradigms (see also Noyer 1998, Nevins 2011, Bobaljik 2017, among others). If a markedness constraint such as (1) is active in a language, illicit feature combinations (in this case, 1/2.FEM) need to get repaired. One specific mechanism suggested is *obliteration*, whereby a marked morphological category is removed as in (2). In our specific case, first and second person (i.e., [+PARTICIPANT]) pronouns always end up without a gender branch, hence no pronominal form can distinguish gender in these persons. A similar markedness constraint, *[GENDER, PLURAL] (Bobaljik 2017: 9, (17b)),[1] can be assumed to be active in English, Dutch, and

1 This constraint and the one given in (1) use different feature notations. Below, we will see that for our purposes, (1) has to be modified as *[GENDER, PARTICIPANT] (see (14)), which makes the two constraints parallel.

https://doi.org/10.1515/9781501506734-015

German, however, not in Icelandic, to derive the lack of gender distinctions in the third person plural in the former three languages.

(1) *[+PARTICIPANT, +FEMININE] [Calabrese 2011: 295, (14)]

(2) 

[Calabrese 2011: 296, (15)]

In this squib, I discuss a distributional restriction of a specific type of pronoun – first and second person pronouns that are interpreted as bound variables rather than indexical pronouns. I show that the availability of bound readings of first and second person pronouns in certain relative clause contexts correlates with the richness of agreement displayed by the head DPs and relative pronouns in the four Germanic languages above, and I suggest that markedness constraints of the type developed in Calabrese 2011 may also play a role in syntax in the process of feature valuation.

2 Fake indexicals

In contexts such as (3), first and second person pronouns are interpreted as bound variables rather than indexical pronouns: the interpretation is that only the addressee did his/her best, and no other people in the comparison set did their best (since one cannot do someone else's best, such sentences can in fact only involve a bound variable interpretation and a referential/indexical interpretation is not available). Indexicals that are interpreted as bound variables are referred to as *fake indexicals* [FIs].

(3) a. *Only I did my best.*
b. *Only you did your best.*

As shown in (4), Dutch, German, and Icelandic also allow bound variable interpretations of indexicals.

(4)	a.	*Alleen*	*ik*	*heb*	*m'n/*haar*	*best*	*gedaan.*	Dutch
		only	I	have	my/*her	best	done	(P. Fenger, p.c.)
	b.	*Nur*	*ich*	*habe*	*mein/*ihr*	*Bestes*	*gegeben.*	German
		only	I	have	my/*her	best	given	
	c.	*Aðeins*	*ég*	*geri*	*mitt/* hennar*	*besta.*		Icelandic
		only	I	do	my/*her	best		(G. Harðarson, p.c.)

An interesting difference arises in these languages when indexical pronouns are embedded in a relative clause headed by *the only one*. As shown in (5) through (7), English and Dutch allow fake indexicals in this context, whereas German and Icelandic prohibit them. In the latter, a first person pronoun can only be interpreted as referring to the speaker, in other words, the meaning can only be that nobody in the comparison set can take care of the speaker's child/children. If an indexical interpretation is not possible, as in the *do your best* contexts in (6c) and (7c), morphologically first (and second) person pronouns are excluded altogether.

(5) English, Dutch: FIs possible
   a. *I am the only one who takes care of her/my son.*
      Possible: Nobody else is taking care of their son.
   b. *Ik ben de enige die m'n best gedaan heeft.*
      I am the only.one who my best done has.3.SG
      'I am the only one who has done my best.'
      [Maier and de Schepper 2010: 4, (11)]

(6) German: FIs impossible
   a. *Ich bin die einzige, die ihren Sohn versorgen kann.*
      I am the.FEM.SG only who.FEM.SG her son take.care.of can.1/3.SG
      'I am the only one who can take care of her son.'
      Possible: Nobody else can take care of their son. [based on Kratzer 2009]
   b. *Ich bin die einzige, die meinen Sohn versorgen kann.*
      I am the.FEM.SG only who.FEM.SG my son take.care.of can.1/3.SG
      'I am the only one who can take care of my (= the speaker's) son.'
      Impossible: Nobody else can take care of their son. [based on Kratzer 2009]
   c. *Ich bin die einzige, die *mein /✓ihr Bestes geben will.*
      I am the.FEM.SG only who.FEM.SG *my /✓her best give want.1/3.SG
      'I am the only one who wants to do *my/her best.'

(7) Icelandic: FIs impossible (G. Harðarson, p.c.)[2]
   a. Ég *er sá eini hérna sem getur séð um börnin sín.*
      I am DEM.MASC.SG only here that can.3.SG see about children SELF
      'I am the only one here who can take care of his/her children.'
      Possible: Nobody else here can take care of their children.

2 The situation is more complex in Icelandic, once verb agreement and the distribution of empty subjects is considered (see Wurmbrand 2017b). In this paper, I concentrate on the configuration in (7).

b. Ég *er sá eini hérna sem getur séð um börnin mín.*
I am DEM.MASC.SG only here that can.3.SG see about children my
'I am the only one here who can take care of my (= the speaker's) children.'
Impossible: Nobody else here can take care of their children.

c. Ég *er sá eini sem gerir *mitt / ✓sitt besta.*
I am DEM.MASC.SG only that do.3.SG *my / ✓SELF's best
'I am the only one who does his/her best.'

In Kratzer 2009 it is proposed that the difference in the availability of FIs between English and German lies in the morphology. While the specific morphological approach proposed there does not extend to Dutch and Icelandic (see Wurmbrand 2015, 2017a for various issues), I will show that morphological properties, specifically the feature make-up of relative DPs, are indeed a major factor in the distribution of FIs in these configurations.

3 Dependencies in 'the only one' contexts

In contrast to simple sentences with FIs such as (3)/(4), which involve a direct dependency between the (true) indexical pronoun and the FI, the connection between the fake and the true indexical in cases such as (5)/(7) is only indirect in that it is mediated by various other dependencies. It is this difference that lies at the heart of the (un)availability of FIs. While the direct dependency in (3)/(4) can be treated as regular binding and feature transfer, thus allowing FIs in all four languages, I suggest that the additional dependencies in (5)/(7) interfere with feature transfer in a way to be spelled out below. Specifically, the morpho-syntactic and semantic dependencies in these cases are predication, relativization (it is not relevant for the current purpose whether relative clauses involve a matching or head-internal derivation), subject – T agreement, and binding (see (8)). Predication is a predominantly semantic dependency which does not involve morphological feature sharing in the languages under consideration (cf. *I* [1.SG] – *the only one* [3.SG]). Subject – T agreement is a morphological or syntactic dependency which typically does not feed into semantics. Binding is a syntactic dependency which is interpreted semantically and shows morphological effects. Lastly, relativization is also a syntactic and semantic dependency, however, it shows morphological effects only in some of the languages examined here. As shown in *Table 2*, English and Dutch determiners, adjectives, and relative pronouns do not distinguish (animate) gender whereas German and Icelandic DPs do (in German, relative pronouns also distinguish gender; Icelandic has no relative pronouns).

(8)

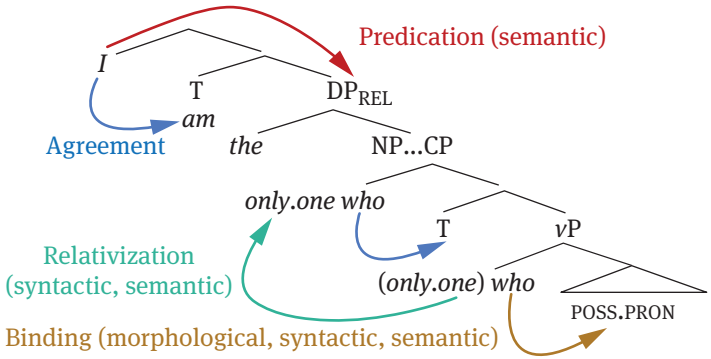


Table 2: 'the only one who' in English, Dutch, German, and Icelandic

	English	*Dutch*	*German*	*Icelandic*
FEM.SG	*the only one who*	*de enige die*	*die einzige die*	*sú eina*
MASC.SG	*the only one who*	*de enige die*	*der einzige der*	*sá eini*
FEM.PL	*the only ones who*	*de enigen die*	*die einzigen die*	þær *einu*
MASC.PL	*the only ones who*	*de enigen die*	*die einzigen die*	þeir *einu*

In what follows, I propose that the difference in the availability of FIs in contexts such as (5) and (7) is rooted in the morphological properties of relative DPs: In English and Dutch, the relative DP only shows number distinctions (*the only one* vs. *the only ones*), whereas it also shows gender distinctions in German and Icelandic (in German only in the singular).

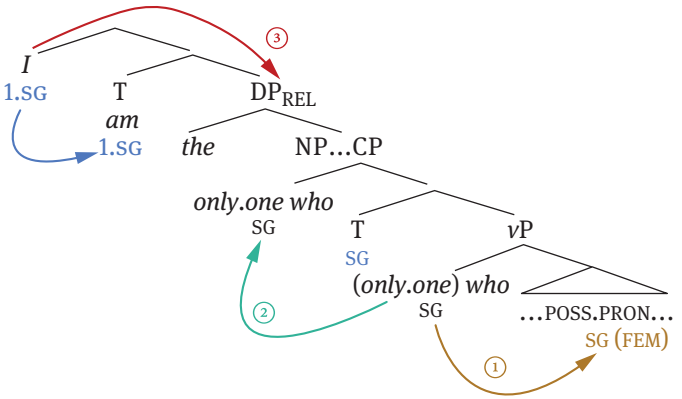
4 Establishing the dependencies

Let us see how the dependencies and features relations are established in a bottom-up derivation in English. The first relation, ①, is the binding relation, established between the relative pronoun (or the relative NP in a head-internal derivation) and the possessive pronoun. I follow the common view that syntactic binding is accompanied by feature transfer from the antecedent to the bindee. Assuming that third person is the lack of person (participant) features, the relative DP/pronoun *the only one who* is only specified for number in English, and the number value is transferred to the possessive pronoun during binding. The next step is agreement between the subject and T (whether before or after the subject moves to Spec,TP does not concern us here). The last operation in the embedded clause is relativization, ②, which moves the relative pronoun (or the relative NP) to the CP domain. In the matrix clause the subject and predicate are

in a predication configuration, ③, and the subject agrees with matrix T. If no further operation takes place, the sentence is pronounced as in (9a). Lastly, as for the gender feature on the possessive pronoun, I assume that it is freely inserted in syntax or morphology, perhaps as a last resort, and it is evaluated contextually whether the morphosyntactic value chosen is appropriate given the contextual referent of "I" (similarly to cross-sentential gender 'agreement').

(9) a. *I am the only one who takes care of her son.*

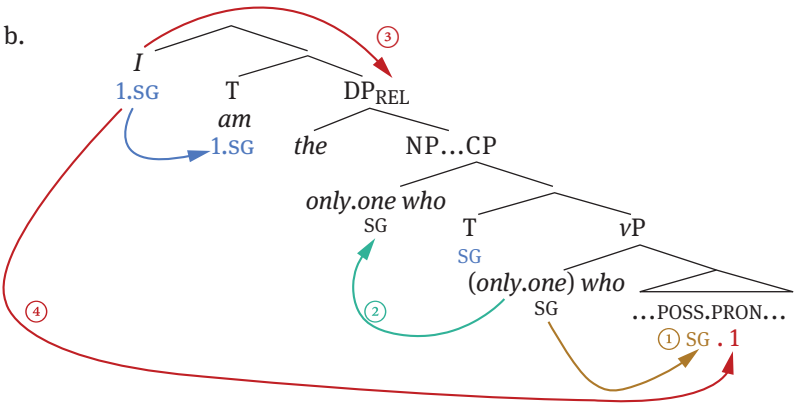
b.



The configuration with a FI possessive pronoun proceeds the same way. Since the matrix subject is indirectly connected to the possessive pronoun via the three dependencies (①, ②, ③), I propose that a further feature sharing process is possible as in (10) (④), as long as it does not over-write or conflict with any of the features present already (which, as we will see, will be the case in German and Icelandic).

(10) a. *I am the only one who takes care of my son.*

b.



I suggest that the operation in ④ is a syntactic feature dependency analogous to feature transfer in binding (e.g., whether this is termed Agree or differently is not essential for the current purpose). In contrast to the (free and contextually evaluated) appearance of the gender feature in (9), a syntactic dependency is sensitive to the syntactic configuration, in particular c-command. The following facts motivate this distinction. As shown in (11), the option of FIs disappears in inverted (specificational) contexts in both English and Dutch. Since the matrix subject does not c-command into the relative clause in these cases, an additional syntactic agreement dependency between *I* and the possessive pronoun cannot be established. Note that in both languages, bound variable interpretations are not in principle excluded in these contexts. They are only possible, however, through the relative DP – i.e., only with third person pronouns. As shown in (11), like in (9), (contextual) feminine is again available, but a FI is not. The availability of feminine marking in both (9) and (11) together with the difference in FIs in (10) vs. (11) support the claim that the two features arise via different mechanisms – the first person feature in (10) can only be transmitted via a syntactic binding-like relation, whereas the gender feature in (9) and (11) is contextual.

(11) a. *The only one who has done *my/✓her best is me.*
b. *De enige die *m'n / ✓haar best gedaan heeft ben ik.*
the only.one who *my / ✓her best done has.3.SG am.1.SG I
'The only one who has done her best is me.' (P. Fenger, p.c.)

Finally, an additional feature transfer relation triggered by the matrix subject in (10) is only possible for dependencies that can apply long-distance (such as variable binding) and not for operations like subject – T agreement which are strictly local in the languages under consideration. Thus, although the embedded possessive pronoun can receive features from the matrix subject in (10), the embedded T can only be valued by its local subject, the relative pronoun, and hence remains third person, independently of what form the possessive pronoun takes (see also Wurmbrand 2017a, b for further discussion of the relation between FIs and verb agreement).

In the next section, I return to the difference in the availability of FIs between English/Dutch and German/Icelandic.

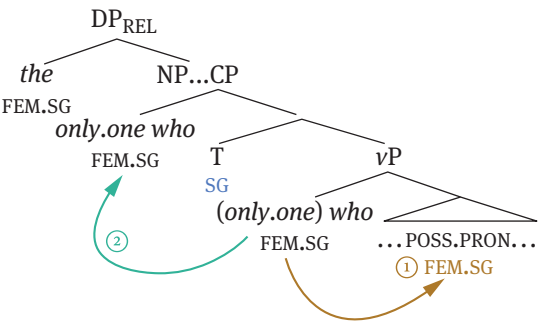
5 A markedness account

As mentioned above, in German and Icelandic, relative DPs display a richer feature inventory since in addition to number, gender is also distinguished on

attributive elements (in German also on the relative pronoun). Thus, the features of the relative clause in (12a) are as in (12b).[3]

(12) a. *Ich bin die einzige, die ihren / meinen*[*FI] *Sohn*
I am the.FEM.SG only who.FEM.SG her / my[*FI] son
versorgen kann.
take.care.of can.1/3.SG
'I am the only one who can take care of his/my son.'
[based on Kratzer 2009]

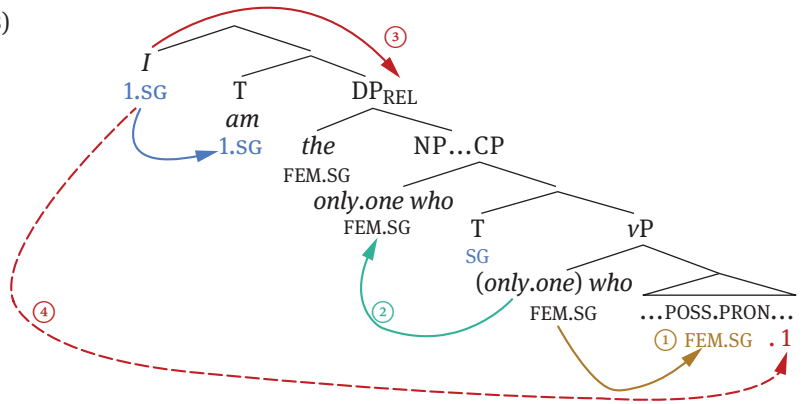
b.



The major difference between German (12b) and English (9)/(10) is that in the German case, the possessive pronoun is valued FEM.SG via the binding dependency (I assume that feature sharing must apply exhaustively to all features present in the target and the source whenever possible). If, in this scenario, a further Agree relation is established between the matrix subject and the possessive pronoun, as in (13), an illicit feature combination would be created: +PARTICIPANT, +FEMININE. I propose that this markedness violation is what excludes FIs in German and Icelandic.

3 Since non-pronominal DPs distinguish gender in German and Icelandic, whereas they don't in English and Dutch (or only in a very limited way in the latter), I assume that a gender feature is always present in the former but (can be) absent in the latter. As in the case of 3rd person possessive pronouns in (9), the gender value on 'the only' may be inserted freely in syntax/morphology and evaluated contextually.

(13)



At this point the question arises of how markedness applies in these cases.[4] If markedness constraints apply (solely) in morphology, we would expect that in (13) the gender feature/branch gets deleted, exactly as in (2) (which we have seen is operative in German and Icelandic). However, this would create the wrong result for the distribution of FIs. It would be predicted that the possessive pronoun ends up as 1.SG – i.e., a FI, which is exactly the form it cannot take. One could assume that in this case, the person feature is deleted, but it is not clear how such an assumption could be motivated. The alternative I would like to suggest is that in addition to triggering rules like obliteration that repair illicit configurations, markedness constraints may also constrain the application of rules that would otherwise create an illicit configuration. Specifically, I suggest that markedness also plays a role for syntactically established feature dependencies that manipulate features, such as feature transfer in binding yielding (morphological) agreement. Since FIs are also excluded in the context of masculine relative DPs in German and Icelandic, the restriction to feminine in Calabrese 2011's original constraint would not be sufficient. Instead I propose the general markedness constraint in (14). In essence, operation ④ in (13) is excluded since adding the feature first person to the already existing feature bundle FEM.SG would create an illicit configuration violating (14).

(14) *[GENDER, PARTICIPANT] (Ge/Ice) [based on Calabrese 2011]

Further motivation for this approach may come from FIs in plural contexts in German. Recall from *Table 2* that German does not show gender distinctions in

4 Thanks to Jonathan Bobaljik, Heidi Harley, Beata Moskal, and Pete Smith for discussion of this point.

the plural. If this corresponds to the lack of gender features, the markedness approach proposed here predicts that FIs should be possible in the plural since no markedness violation would arise if a participant feature is added via the operation in ④ in (13). Although the judgments are subject to speaker variation (in particular in second person plural configurations), the data in (15) from Kratzer 2009 support this prediction.

(15) a. *Wir sind die einzigen, die unseren Sohn versorgen*
we are the only.ones who.PL our.ACC son take.care.of.1/3.PL
'We are the only ones who are taking care of our son.' [Kratzer 2009: 191, (7)]

b. *Ihr seid die einzigen die euren Sohn versorgt.*
you are the only.ones who.PL your.ACC son take.care.of.2.PL
'You are the only ones who are taking care of your son.' [Kratzer 2009: 192, (9)]

Finally, I'd like to speculate about the question of where/when the markedness constraint in (14) applies. Although markedness is restricted to morphology in Calabrese 2011, the current proposal is not necessarily against the spirit of Calabrese's account. While operation ④ in (13) has to involve a core syntactic component (due to its sensitivity to c-command), the actual application of the markedness constraint in (14) could nevertheless be seen as a morphological phenomenon. To achieve this technically, let us assume that operation ④ is an Agree dependency, which accompanies operations such as syntactic binding. Agree is often split into two subparts (Chomsky 2000, 2001, Bhatt and Walkow 2013) – a part that establishes a syntactically conditioned link between two matching elements, and a part that copies and transfers feature values (cf. Bhatt and Walkow 2013's notions of *Match* and *Value*). It is then possible to situate the two parts of Agree in different components – Match in syntax, and Value in morphology. Thus, while the Match part of ④ in (13) is only subject to syntactic conditions, the morphological Value part would be constrained by markedness.

6 Conclusion

In this squib, I have shown that the distribution of fake indexicals in four Germanic languages shows a connection between the richness of agreement and the availability of bound readings. I have suggested that markedness constraints of the type developed

in Calabrese 2011 are involved in restricting certain feature combinations in the morphological feature valuation part of Agree dependencies. Following Calabrese 2011, purely syntactic operations such as Merge or Move are not (or rather unlikely) to be subject to markedness constraints. The only syntactic(ally established) dependencies for which markedness constraints are relevant are dependencies that feed into morphological agreement. Given the ambivalent status of agreement as a syntactic and/or morphological operation, having morphological constraints participate in regulating (partly) syntactic operations pertaining to agreement may not be a big adjustment to the general workings of markedness, or so I hope.

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