Binding in Germanic `FREE`

Eric Reuland, Utrecht University and Martin Everaert, Utrecht University

Summary

All languages have expressions, typically *pronominals* and *anaphors*, that may or must depend for their interpretation on another expression, their *antecedent*. When such a dependency is subject to structural conditions, it reflects *binding*. Although there is considerable variation in binding patterns cross-linguistically, in fact, variation is along a limited set of parameters. The Germanic languages exemplify some of the main factors involved.

In Germanic, third-person pronominals generally do not allow binding by a co-argument. However, in Frisian and Afrikaans, they do, being embedded in a richer structure than meets the eye. In Continental West Germanic and Scandinavian, anaphors come in two types: simplex anaphors (*SE-anaphors*)—deficient for number and gender— and complex anaphors (*SELF-anaphors*). These typically consist of a pronominal or SE-anaphor combined with an element like Dutch *zelf* 'self' or one of its cognates. In all the Germanic languages SELF-anaphors are bound in their local domain—approximately the domain of their nearest subject—except in a few identifiable positions, where they are interpreted *logophorically*. That is, they accept a non-local antecedent, provided this element holds the *perspective* of the sentence.

The distribution of SE-anaphors involves three different conditions. First, they can be bound by a co-argument only if the verb belongs to a restricted class, which allows syntactic detransitivization. Second, in general, SE-anaphors allow non-local binding. But the conditions differ among subgroups. In Dutch and German, they can only be bound non-locally when contained in a causative or perception verb complement or a small clause. In Mainland Scandinavian, non-local binding is, in principle, available to all infinitival clauses (subject to some dialectal variation). For instance, in some varieties of Norwegian, referentiality of intervening subjects restricts binding; in other varieties, the restricting factor is not "finiteness" but "being specified for tense." Third, in Icelandic long-distance antecedents beyond the infinitival domain are licensed by a subjunctive, together with the requirement that the antecedent holds the perspective. Faroese largely patterns like Icelandic, although lacking a subjunctive. However, the class of verbs that allow this pattern coincides with the class of verbs in Icelandic that have a subjunctive complement.

Non-local binding of SE-anaphors is sensitive to the requirement that the antecedent be animate, but the languages show differences in the details.

Unlike the West Germanic languages, the Scandinavian languages all have a possessive reflexive in third person. In general, their distribution appears to be quite close to that of SE-anaphors, but this is subject to dialectal variation, with various differences in the details.

Keywords: anaphor, pronominals, binding, verb class, (non)-locality, logophoricity, animacy, subjunctive, cross-linguistic variation

Subjects: Language Families/Areas/Contact, Linguistic Theories, Syntax

1. Crosslinguistic Variation From a Theoretical Perspective

The aim of this article is twofold. On one hand, it presents an overview of the main patterns of anaphor binding in the Continental West Germanic languages, in particular Dutch, Frisian and Afrikaans, and German, and the Scandinavian languages, specifically Icelandic, Faroese, Norwegian, Swedish, and Danish. English, as a non−Continental West Germanic language, is only discussed in passing, since its main patterns have been well described. On the other hand, it aims to indicate how differences in binding patterns among a group of closely related languages can be explained based on a few grammatical differences independent of binding. For space reasons, reference to dialectal variation is limited to an occasional paragraph.[1]

Facts get their meaning from a theory. The data patterns we discuss have surfaced over the years during the process of developing a "binding theory" from the early 1970s[2] to the early 21st century. Although there are several competing theories addressing the intricate cross-linguistic syntax and semantics of anaphora,[3] the data are presented against the background sketched by Reuland (2011), given its general scope.

Among the Germanic languages, one finds a considerable variety of anaphoric systems. English just has pronominals versus anaphors. Dutch and the Scandinavian languages represent more complex systems. These languages have *simplex anaphors* and *complex anaphors*, in addition to pronominals. Simplex anaphors are essentially pronominal elements that lack a specification for certain features (typically, *number* and *gender* but occasionally also *person*). Dutch, for instance, has a simplex anaphor *zich*—which is only specified for *person*, not for *number* and *gender*— together with a complex anaphor *zichzelf*, which differs in distribution. We refer to elements such as Dutch *zich*, Norwegian *seg*, Icelandic *sig*, and the like as SE-anaphors and to anaphors like *zichzelf* and its cognates as SELF-anaphors (Reinhart & Reuland, 1993).

Just like there is variation in anaphoric forms, cognates of a similar form may differ in the domain in which they are bound (Everaert, 1986; Fischer, 2004a). This is illustrated by the variation among SE-anaphors in Germanic. While in the languages discussed SELF-anaphors (in non-subject positions; see 2c) must be bound within their minimal clause, the binding domains for SE-anaphors show significant differences. In Dutch and German, this domain is limited to small clauses and causative and perception verb complements, whereas in Scandinavian languages this domain is more extended (see Section 7 for further discussion).

Under specific discourse conditions, Icelandic and Faroese, and some variants of Norwegian, allow an interpretation of SE-anaphors even in the absence of a linguistically expressed antecedent, a so-called *logophoric* use; see Section 5 for more detail.[4]

Properties of predicates play a role in determining the distribution of anaphors. While grooming verbs such as the Dutch *wassen* 'wash' allow an object SE-anaphor as in *Jan waste zich* 'Jan washed SE', subject-experiencer verbs such as *haten* 'hate' require a SELF-anaphor, as in *Jan haatte zich*(zelf)* 'Jan hated SE-SELF'.[5] In the Scandinavian languages, one finds essentially the

same pattern as in Dutch, but see the discussion of Swedish in section 2.2 for some differences. Prima facie, German is different, with just the apparently simplex anaphor *sich* in positions where the other languages require a SELF-anaphor; see Section 4.2 for discussion.

Unlike English, all other Germanic languages allow local binding of first- and second-person pronominals. German *ich wasche mich*, Dutch *jij wast je*, are all fine (see Section 2.1). In this respect, Germanic contrasts with, for instance, Slavic languages, which have one dedicated reflexive for all persons, and is like the Romance languages.[6] Strikingly, Frisian allows local binding of third-person pronominals, as in *Jan waske him* 'John washed himself', and so does Afrikaans (see Section 2.4). Again, the question is whether these languages are "just exceptions" or whether this can be related to other properties of these languages. This is discussed in Section 4.1.

Possessives show a further dimension of variation. While West Germanic languages have pronominal forms for all persons, Scandinavian has dedicated anaphoric forms for third-person possessives, not only obligatory in local binding but also available with remote antecedents.

For all the languages investigated, a systematic overview is included of the role of animacy in binding, specifically with respect to SE-anaphors.[7] For a proper understanding of the interplay between syntactic factors and discourse factors in the conditions allowing anaphors to be exempt from their standard binding requirement, we systematically explore exemption effects in the languages discussed.

The presentation is organized against the background of two leading ideas. One idea, going back to Everaert (1986) and elaborated in Reuland (2011), is that binding of SE-anaphors such as Dutch *zich*, Norwegian *seg*, and others, is syntactically brought about by *chain* formation. These anaphors are deficient for number (and gender). This deficiency allows an Agree operation to apply, which looks for a valued occurrenc*e* of a φ-feature on the antecedent, copies it, and uses the copy to value an unvalued occurrence of such a feature on the anaphor. Sharing copies of a feature value is interpreted as a binding dependency. Conversely, when Agree *attempts to value a feature that is already valued*, for instance when it finds a pronominal in the position it targets, a conflict arises, and the result is not interpreted (the derivation is *canceled*). This accounts for the well-known complementarity between anaphors and bound pronominals in the local domain (see Reuland, 2011, 2017a; Reuland & Zubkov, 2022, for details and exceptions; Sections 3 and 5 give some examples of non-complementarity in non-local domains; see also Fischer, 2004b). The formation of such feature chains is mediated by functional elements on the path between the envisaged antecedent and the target position and therefore is sensitive to the properties of these functional elements. This is an important source of cross-linguistic variation.

The other leading idea is that the reflexivity of predicates must be *licensed* (Reinhart & Reuland, 1993;Reuland, 2001, 2017b). Reflexivizing a predicate leads to representations with two identical variables in logical syntax. The grammatical system avoids expressions with two identical variables in a local domain as in (1a). There are essentially two ways for languages to avoid such local identity. One cross-linguistically prevalent option is to detransitivize a transitive verb, bundling its semantic roles, and assigning the bundled role the one remaining syntactic

argument; see (1b).[8] Reflexivity can also be expressed by differentiating the arguments. Differentiation can be achieved by combining one argument with an additional morpheme, as a form of protection. Cross-linguistically such morphemes are realized as a *self*-type element, a body-part expression (such as Georgian *tav tavis* 'his head'), a doubled pronoun such as *taan tanne* in Malayalam, and others; see (1c) for a more "abstract" representation. An expression like *tav tavis* is interpreted as standing proxy for the value of the antecedent.

Bundling is restricted to *agent-theme* verbs and, therefore, not available for other verb classes, such as subject experiencer verbs such as *love* or *hate* (see Reinhart, 2000/2016; Reinhart & Siloni, 2005, for further discussion of verb classes). Hence, with such verbs, one of the arguments has to be differentiated, as illustrated by Icelandic *Jón elskar sig *(sjálfan)* 'John loves himself'. Here, protection is brought about by the element *sjálfan*, while the feature sharing between the antecedent and SE establishes the binding dependency (see 1c). Prima facie, German *sich* is a SE-anaphor; how *sich* licenses reflexivity is discussed in Section 4.2. If neither bundling nor protection applies, the result is ill formed.

(1)

   a. $\ \ *$DP $(\lambda x\ (V_{\theta1,\ \theta2}\ (x,\ x)))$ -- *Local identity
   b. $\ \ $DP $(\lambda x\ (V_{[\theta1-\theta2]}\ (x)))$ -- Bundling $[\theta1-\theta2]$
   c. $\ \ $DP $(\lambda x\ (V_{\theta1,\ \theta2}\ (x,\ [\text{MORPH }x])))$ -- Protection by MORPH

With the bundling of θ-roles, the accusative-case feature is absorbed in English, while in languages like Dutch, a residue of the case feature remains and triggers the insertion of the SE-anaphor (see (2a-iii/vi), but note that SE-anaphors may occur in other environments as well). An independent property of SELF-type elements is that they may also *enforce* reflexivity. For instance, in *Mary expected Cindy to enjoy herself*, the *self*-element is required to reflexivize the verb *enjoy*, which gives *Cindy*, but not *Mary*, as the antecedent. In certain environments, *self*-anaphors are exempt from this requirement, however.[9] If so, their interpretation is sensitive to discourse conditions, such as the requirement that the antecedent carries the perspective of the sentence, a *logophoricity* effect. Further properties of SELF-anaphors depend on the nature of the pronominal element they contain. If this element is an SE-anaphor also, the Agree operation will be involved. If it is a fully specified pronominal, it will not be visible to Agree (being shielded by the SELF-element, unlike what is assumed in Reinhart & Reuland, 1993; see Reuland, 2011).

The presentation is structured per topic: basic patterns (Section 2), binding into PP (Section 3), the structure of the anaphoric element and the role of case (Section 4), local and non-local binding (Section 5), and animacy effects and exemptions (Section 6). Section 7 summarizes what the variation implies for the larger picture. We present data from Dutch, German, Frisian, Afrikaans, Mainland Scandinavian, Icelandic, and Faroese. Given the similarity between the anaphoric systems of Danish, Norwegian, and Swedish, they are discussed with Norwegian Bokmål taken as a starting point. Icelandic and Faroese are discussed together, starting with Icelandic and noting the differences as they come up.

2.   Basic Pattern

2.1   Dutch and German

In addition to pronominals (first- and second-person singular and plural, third-person singular masculine, feminine and neuter, third-person plural common gender), Dutch has two anaphor types, a SE- anaphor *zich* and SELF-anaphors, consisting of a first- or second-person pronoun or the SE-anaphor *zich*, combined with the element *zelf*, as in (2).[10]

Zich(*zelf)* only occurs with third-person antecedents including the arbitrary pronominal *men* 'one' (no singular/plural contrast). In environments where *zich* is used for the third person, the first and second person are realized by their pronominal object forms (2a).[11] The choice of a *simplex form* versus a *SELF-anaphor* depends on the type of predicate: agent-theme verbs generally allow *zich* or a simplex first- or second-person pronoun (as in (2a)), given that they allow bundling (see (1b)). Subject-experiencer verbs as in (2b) require a SELF-anaphor: they do not allow bundling and hence need protection to avoid the configuration (1a).[12]

Dutch has "exceptional case marking" (ECM), with causative and perception verb complements. ECM subjects can be simplex but need not be; see (2c). We assume that Agree could target the feature content of the embedded subject. An SE-anaphor would be allowed since a local identity violation (see (1a)) does not arise (*zich* and the higher subject are not co-arguments), but a bound third-person pronominal would not because the derivation is canceled (as explained in Section 1).[13]

(2)

a. Agent-Theme verb

Singular	Plural
i. Ik waste me/mij.	iv. Wij wasten ons.
ii. Jij waste je/*jou.	v. Jullie wasten je/jullie.
iii. Zij_i waste $zich_i$ /*$haar_i$.	vi. Zij_i wasten $zich_i$/*hen_i/*ze_i.

'I/you/she/we/you/they washed myself/yourself/herself/*her/ourselves/ yourselves/themselves/*them.'

b. Subject experiencer verb
i. Ik bewonderde me*(zelf).   iv. Wij bewonderden ons*(zelf);
ii. Jij bewonderde je*(zelf).   v. Jullie bewonderden jullie*(zelf)/je*(zelf).
iii. Zij_i bewonderde $zich_i$*(zelf)   vi. Zij_i bewonderden $zich_i$*(zelf)/*hen_izelf
          *$haar_i$(zelf).
'I/you/she/we/you/they admired myself/yourself/herself/ourselves/yourselves/ themselves/*them.'

c. ECM structure
i. Ik voelde [me(zelf) wegglijden].
ii. Jij voelde [je(zelf) wegglijden].
iii. Zij_i voelde [$zich_i$(zelf)/*$haar_i$(zelf) wegglijden]. Etc.
'I/you/she felt myself/yourself/herself/*her slip away'. Etc.

German behaves quite similar to Dutch. Like the other Germanic languages, German allows first- and second-person pronominals to locally bind their object forms. When the antecedent is the polite form of address *Sie*, the reflexive is realized as *sich*. However, German does not show a contrast of SELF- versus SELF-less forms reflecting properties of predicates and allows *sich*, where the other languages have a SELF-anaphor.[14]

(3)

Subject experiencer verb
i. Ich bewundere mich (selbst).   iv. Wir bewundern uns (selbst).
ii. Du bewunderst dich (selbst).   v. Ihr bewundert euch (selbst)
iii. Er_i bewundert $sich_i$/*ihn (selbst).   vi. Sie_i bewundern $sich_i$/*sie_i (selbst)
'I/you/he/we/you/they admire(s) myself/yourself/himself/*him/ourselves/ yourselves/themselves/*them.'

2.2 Mainland Scandinavian

The Mainland Scandinavian languages show a similar pattern as (2).[15] They have a simplex paradigm with pronouns for first and second person and an SE-anaphor for third person singular and plural.[16] The SELF-element (*selv* in Danish, Norwegian, with some dialectal variation, and *själv* in Swedish) combines both with the third-person SE-anaphor *seg* and with the elements in the pronominal paradigm (*ham*, etc.). Unlike *self* in English, *selv* does not show a number contrast.[17]

(4)

a. Agent-Theme verb
    Singular   Plural
    i. Jeg vasket meg.   iv. Vi vasket oss.
    ii. Du vasket deg.   v.   Dere vasket dere.
    iii. Han$_i$ vasket seg$_i$/*ham$_i$.   vi. De$_i$ vasket seg$_i$/*dem$_i$.
    'I/you/he/we/you/they washed myself/yourself/himself/*him/ourselves/
    yourselves/themselves/*them.'

b. Subject experiencer verb
    i. Jeg beundret meg*(selv).
    ii. Du beundret deg*(selv).
    iii. Han$_i$ beundret seg$_i$*(selv)/*ham$_i$(selv). Etc.
    'I/you/he admired myself/yourself'/himself/*him.' Etc.

c. ECM structure
    i. Jeg kjente [meg gli unna].
    ii. Du kjente [deg gli unna].
    iii. Han$_i$ kjente [seg$_i$/*ham$_i$ gli unna]. Etc.
    'I/you/he felt myself/yourself/himself/*him slip away'. Etc.

The main difference among the mainland Scandinavian languages is that in Swedish the SE-anaphor *sig* without *själv* is allowed with a wider range of verbs than in Norwegian (Everaert, 1986, p. 204; Hellan, 1988, p. 97, note 10; see also Schadler, 2009).[18] As will be seen, there is extensive variation among dialects of Norwegian. A similar in-depth exploration of variation in Danish or Swedish would carry us beyond the scope of this overview.

In addition, these languages have a third-person possessive anaphor *sin*, which in Danish is restricted to the singular; for the plural, Danish uses the pronominal *deres* (Vikner, 1985).[19]

The anaphors *seg* and *seg selv* must be bound by the subject of a predicate containing the anaphor. The same holds true of the possessive anaphor. When the antecedent is not a subject, *ham selv*, and others, is used instead of *seg selv*, and the corresponding pronominal form is used instead of *seg* or *sin.* So, in effect, they have a four-way (Pron, SE, Pron SELF, SE SELF) distinction. (But see Lødrup, 2008, for discussion of exceptions.)

2.3   Icelandic and Faroese

Icelandic and Faroese have a four-way distinction too.[20] Like the other Scandinavian languages, they have a simplex paradigm with pronouns for first and second person, and an SE-anaphor for third-person singular and plural, *sig* in Icelandic (dative *sér*, genitive *sín*) and *seg* in Faroese (dative *sær*, genitive *sín*).

The SELF-element (*sjálfan* in Icelandic, *sjálvan* in Faroese)[21] combines both with the third-person SE-anaphor and with pronouns. In Icelandic, these are (for the accusative) *meg* 'me', *þig* 'you', *hann* 'him', *okkur* 'us', *ykkur* 'you', *þá* 'them', corresponding to *meg, teg, hann, okkum, tykkum, teir*, respectively, in Faroese. Just like in Dutch, Frisian, and the Mainland Scandinavian languages, the choice between the simplex and the complex form depends on the verb class. With agent-theme verbs like *þvo* 'wash' exemplified in (5),[22] the SE-anaphor can take a local antecedent whereas with another class of verbs, including subject experiencer verbs, *sig* cannot be locally bound.[23]

(5)

  a. Agent-Theme verb

      Singular   Plural

       i. Ég þvoði mér.   iv. Við þvoðum okkur.

       ii. Þú þvoðir þér.   v.   Þið þvoðuð ykkur.

      iii. Hann$_i$ þvoði sér$_i$/*honum$_i$.   vi. Þeir$_i$ þvoðu sér$_i$/*Þeim$_i$.

      'I/you/he/we/you/they washed myself/yourself/himself/*him/ourselves/ yourselves/themselves/*them.'

  b. Subject experiencer verb

       i. Ég hata *(sjálfan) mig.

       ii. Þú hatar *(sjálfan) þig.

      iii. Hann$_i$ hatar *(sjálfan) sig/*hann$_i$ (sjálfan). Etc.

      'I/you/he hated myself/yourself/himself/*him.' Etc.

  c. ECM structure

       i. Ég heyrði [mig syngja].

       ii. Þú heyrðir [þig syngja].

      iii. Hann$_i$ heyrði [sig$_i$/*hann$_i$ syngja]. Etc.

      'I/you/he heard myself/yourself/himself/*him sing.' Etc.

The Faroese counterpart follows the same pattern (see Barnes, 1986).[24]

The SE-anaphor is subject-oriented; when the antecedent is not a subject, the corresponding pronominal form is used. In addition, Icelandic and Faroese have a possessive anaphor: *sinn* (Icelandic), *sín* (Faroese). Strahan (2009) observes that in Faroese, it is very common for a prepositional possessive phrase *hjá sær/honum* 'by/with SE$_{DAT}$/him$_{DAT}$' to follow the possessed noun rather than the possessive reflexive/pronoun.

2.4 Frisian and Afrikaans

Like English, Frisian (Everaert, 1991; Hoekstra, 1994; or formally Westerlauwers Frisian) and Afrikaans (Oosthuizen, 2013, 2015) have a two-member anaphoric system. In third person, there is, respectively, an anaphor *himsels/homself* and a pronominal *him/hom*. However, unlike Dutch and English, Frisian and Afrikaans have locally bound third-person pronominals. This section focuses on Frisian, but where possible the discussion includes Afrikaans.[25] Note that in third-person feminine and plural, the nominative paradigm has two forms, *sy* and *hja*, that can be used interchangeably. The object paradigm shows two forms as well; these contrast, and, strikingly, the form *se* cannot be locally bound. This is discussed in Section 4.1.

The generalization is that wherever Dutch allows the SE-anaphor *zich*, Frisian and Afrikaans allow a bound pronominal (see Section 4 for an explanation). Example (6) shows intrinsic reflexive verbs, (7) the full paradigm for Frisian, and (8) for Afrikaans, exemplified for agent-theme verbs, including grooming verbs.[26]

(6)

Frisian
a. Alex$_i$ skammet him$_i$.
  Alex shames him
  'Alex is ashamed.'
Afrikaans
b. Die seuns$_i$ moet hulle$_i$ gedra.
  The boys must them behave
  'The boys must behave themselves.'

(7)

Singular	Plural
i. Ik waskje my.	iv. Wy waskje ús.
ii. Dû waskest dy.	v. Jimme waskje jim(me).
Jo$_{polite}$ waskje jo.	
iii. Hy$_i$ wasket him$_i$.	vi. Sy$_i$/hja$_i$ waskje har$_{i/j}$(ren)/se$_{*i/j}$.
Sy$_i$/hja$_i$ wasket har$_{i/j}$/se$_{*i/j}$	

'I/you/he/she/we/you/they wash(es) myself/yourself/himself/herself/ourselves/yourselves/themselves.'

(8)

Afrikaans

Singular	Plural
i. Ek was my(self).	iv. Ons was ons(self).
ii. Jy was jou(self).	v. Julle was jul(le)(self).
U$_{polite}$ was u(sels).	
iii. Hy$_i$ was hom$_i$(self).	vi. Hulle$_i$ was hulle$_i$(self).
Sy$_i$ was haar$_i$(self).	

'I/you/he/she/we/you/they wash(es) myself/yourself/himself/herself/ourselves/yourselves/themselves.'

Just like in Dutch, other verbs, specifically, subject experiencer verbs require a SELF–anaphor, in the form of a pronominal with *sels* for Frisian (9) and *self* for Afrikaans (10), with no number distinction.

(9)

Sytse$_i$ bewûnderet himsels$_i$/*him$_i$.
'Sytse admires himself/him.'

(10)

Jan$_i$ haat homself$_i$/*hom$_i$/hom$_j$.
'Jan hates himself/him.'

As subjects of ECM constructions, Frisian likewise allows bound pronominals:

(11)

Sjoerd$_i$ fielde [him$_i$ fuortgliden].
'Sjoerd felt himself slip away.'

So, with respect to the overall distribution of simplex versus SELF-marked forms Frisian behaves just like Dutch, as does Afrikaans. Both show the same sensitivity to verb class and structural position in the distribution of simplex versus complex anaphoric expressions as Dutch.

3. Binding Into PP

3.1 Dutch and German

For binding into PPs, Dutch differentiates between argumental prepositional objects (12) and locative/directional PPs (13). In subcategorized PPs, a SELF-anaphor is required (12a); for German, that is not the case (12b):

(12)

a. Noa$_i$ vertrouwde op zichzelf$_i$/*zich$_i$/*hem$_i$.
  'Noa relied on himself.'
b. Sie glaubt in sich/sich selbst

In locative and directional PPs, both an SE-anaphor and a pronominal are allowed:[27]

(13)

De onderzoeker$_i$ legde het boek achter zich$_i$/haar$_i$.
The researcher put the book behind SE/her

This difference is due to the fact that subcategorized PPs are part of the verbal predicate. Locative and directional PPs show optionality, since the preposition may optionally count as an intervener, shielding its complement from being targeted by Agree. In Section 5, we discuss that SE-anaphors do not exclusively occur in contexts with a local antecedent.

Whereas Dutch locative and directional PPs show no complementarity between bound pronouns and anaphors, Modern High German requires *sich* in such cases (among others, see Fischer, 2004a):

> (14)
>
> a. Claus_i sah eine Schlange neben sich_i/*ihm_i.
>   'Claus saw a snake next to him.'
> b. Claudia_I setzte die Pflanze hinter sich_i/*ihr_i/*sie_i.
>   'Claudia put the plant behind her.'

This contrast relates to another difference. German differs from the other West Germanic languages in expressing morphological case distinctions. These not only distinguish arguments of the verb (e.g., direct vs. indirect object), but they also show up in locative, and directional, PPs, among others. In PPs, the case of the NP (accusative or dative) is not only determined by the preposition, but it also reflects whether the PP expresses location or direction:

> (15)
>
> a. Manuela tanzte **im** Zimmer (herum).
>   Manuala danced in-DAT the room (location)
> b. Manuela tanzte **ins** Zimmer (hinein).
>   Manuala danced into-ACC the room (direction)

In (15), then, the case of P's complement is not just determined by P, but by V and P jointly. Thus, the P does not act as an intervener—not even optionally so as in Dutch—and does not shield a pronominal complement from being targeted by Agree. This leads to a conflict (see Section 1), and *ihn* cannot be interpreted as bound.[28]

3.2 Frisian and Afrikaans

As in Dutch, binding into subcategorized PPs requires the *sels*-form in Frisian (16a) but not in locatives (16b); a similar pattern is found in Afrikaans (17) (the simpler form may be preferred over the complex forms in (16b) and (17b) for reasons of economy, see Reinhart & Reuland, 1993, note 15):

(16)

  a. Alex$_i$ betroude op himsels$_i$/??him$_i$.
     'Alex relied on himself.'
  b. Alex$_i$ lei it boek neist him$_i$/*himsels$_i$.
     'Alex put the book next to him.'

(17)

  a. Marie$_i$ het met haarself$_i$/*haar$_i$ gepraat.
     'Marie has with herself/her talked.'
     'Marie talked to herself/her.'
  b. Marie$_i$ sit die boek langs haar$_i$/??haarself$_i$ neer.
     Marie puts the book next-to her down
     'Marie puts the book down next to her.'

3.3 Mainland Scandinavian

Just like Dutch, the Scandinavian languages differentiate between subcategorized PPs and locative/directional PPs. In Norwegian, in the case of subcategorized PPs, an SELF-anaphor is required (18a). In locative and directional PPs, an SE-anaphor is required and a pronominal is not allowed (18b):[29]:

(18)

  a. Per$_i$ stoler på seg$_i$*(selv)/*ham$_i$.
     'Per trusts in himself.'
  b. Forskeren$_i$ la boken bak seg$_i$/*han$_i$.
     'The researcher put the book behind him.'

Again, this difference is due to the fact that subcategorized PPs are part of the verbal predicate. In locative and directional PPs a SE-anaphor is allowed since the preposition is not part of the verbal predicate; however, unlike what one sees in Dutch, due to the weak case system of Mainland Scandinavian, the preposition is too weak to shield its complement from being targeted by Agree.[30]

3.4 Icelandic and Faroese

For binding into PPs, Icelandic and Faroese again differentiate between subcategorized PPs and locative/directional PPs. In subcategorized PPs, a SELF-anaphor is required; see (19) for Icelandic and (20) for Faroese (bound pronominals are excluded a fortiori):

(19)

Per treystir á *(sjálfan) sig.
'Per trusts in himself'

(20)

a. Kjartan$_i$ skrivaði eitt bræv til sin sjálvs$_i$/*sín$_i$.
   Kjartan wrote a letter to REFL self REFL'
b. Jógvan$_i$ er stoltur av sær sjálvum$_i$/*sær$_i$
   'Jógvan is proud of REFL self REFL'

In locative and directional PPs, one finds a SE-anaphor; a bound pronominal is not allowed; see Icelandic (21) and Faroese (22):[31]

(21)

Per$_i$ leggur bókina á bak við sig$_i$/*hann$_i$.

(22)

Per$_i$ leggur bókina aftan fyri seg$_i$/*hann$_i$.
'Per put the book behind him.'

This difference is again due to the fact that subcategorized PPs are part of the verbal predicate. Given the relatively rich case system of Icelandic and Faroese, it is presumably the joint role of verb and preposition in determining the case of the preposition's object that allows it to be targeted by Agree, as in German. In locative and directional PPs, an SE-anaphor is allowed since

the preposition is not part of the verbal predicate; the anaphor and its binder are therefore not co-arguments, and no reflexive predicate is formed that requires licensing; the preposition does not act as an intervener either, allowing its complement to be targeted by Agree.

4. The Structure of the Anaphoric Element and the Role of Case

To understand the variation, we will have a closer look at the properties of third-person pronouns in Frisian and Afrikaans and the anaphor *sich* in German.

As discussed, case properties play a role in the distribution of anaphoric elements in PPs. Case will be seen to also play a role in explaining why Frisian is exceptional in allowing local binding of third-person pronouns. The internal structure of anaphoric elements themselves will help us understand the difference between German and the other Germanic languages in the use of SELF-versus SELF-less forms.

4.1 The Status of the Third-Person Pronominals in Frisian (and Afrikaans)

Consider the pronominal system of Frisian in some more detail (see Reuland & Reinhart, 1995). Unlike the third-person masculine, the third-person singular feminine and plural (common gender) have two object forms: Both may be realized as har_{SG}/$harren_{PL}$ as well as *se*. Despite appearances, *se* is a pronominal and not to be confused with an SE-anaphor. In many contexts, these forms are used interchangeably:

(23)

{Referring to some group of people}
a. Sybren hie harren juster sjoen.
b. Sybren hie se juster sjoen.
   Sybren has them yesterday seen
   'Sybren saw them yesterday.'

However, unlike *har(ren)*, *se* may not be locally bound.

(24)

De bern$_i$ waskje harsels$_i$/har(ren)$_i$/*se$_i$.
'The children wash themselves/them.'

The ungrammaticality of sentences with bound *se* shows that, for *se*, the locality prohibition works in Frisian as it does in Dutch, raising the question of how *har* and *se* differ. Hoekstra (1994) shows that they differ in case. To see this, consider two of his contexts.

Frisian has a *free dative* construction: A clause may contain an object DP expressing indirect involvement in the eventuality denoted. This DP is licensed independently of lexical properties of the predicate, but in this context, *har* cannot be replaced by *se*:

(25)

De kjitten steane har/*se yn'e tún.
The weeds stand her in the garden

Because in languages having morphological case, such objects are dative case-marked, Hoekstra proposes that a case distinction also underlies the contrast in (25). Independent evidence for the role of case is that *se* is barred from locative PPs; see (26):

(26)

Ik seach wat bewegen efter har/*se.
'I saw something move behind her.'

Pronominal arguments of adjectives also require the *har*-form. Hoekstra concludes that *se* requires structural case, whereas *har* is licensed with inherent case. Reuland and Reinhart (1995), then, propose that this distinction carries over to the masculine and neuter members of the paradigm where two object forms are not distinguished. Recall, now, from Section 1, that when Agree finds a pronominal in the position it attempts to value the result is not interpreted. Whether or not Agree can target this position depends on the properties of the path to the antecedent. In a nutshell, Frisian pronominals with inherent case can be locally bound since the case layer shields them from being targeted by Agree; no conflict arises, and nothing prevents them from being bound. The *se*-form is in a position of structural case; hence, it is not shielded from Agree; a conflict arises, and it cannot be interpreted as locally bound.

For Afrikaans, a similar reasoning may apply but different in detail. As discussed in Arnold (2014), Afrikaans allows [+animate] objects to be marked with the preposition *vir* 'for'; see (27):

(27)

> Ek het gister   vir die meisie gesoen.
> I have yesterday for the girl kissed
> 'I kissed the girl yesterday.'

Vir then, signals the presence of an extra functional projection on top of the DP in the direct object position (such as in (8)), again shielding the pronoun from being targeted by the Agree operation. If so, Afrikaans uses a strategy observed for languages like Zande (Schladt, 2000), licensing reflexivization by embedding the pronoun in a PP (see Reuland, 2011, p. 208).[32]

4.2 The Structure of SE-Elements in Dutch and German

As noted in the introduction, most Germanic languages show a distribution of SELF- versus SELF-less forms that reflects properties of predicates and syntactic position. Only German goes against this pattern (see Sections 2.1 and 3.1), as it allows *sich*, where other languages have a SELF-anaphor. Prima facie, *sich* is an SE-anaphor. Hence, the question arises of what underlies this variation.

As Reuland (2011) suggests, *sich*'s structure may well not be what it appears to be, since its stress pattern indicates that in some of its uses, it must have more structure than meets the eye.[33] In both Dutch and German, the head of the N-projection bears the main stress of the NP. Dutch anaphors conform to this pattern.

Apart from a few idiomatic expressions, *zich* cannot bear stress (Everaert, 1986, pp. 31–34).[34] Reuland (2011, Chapter 8) suggests that this indicates that, unlike third-person pronominals, *zich* occurs in a D-position without NP complement and therefore is more clitic-like. This accounts for the contrast in (28): *Zich* is allowed in a higher position than the subject (its binder), whereas the pronominal is not felicitous there.[35]

(28)

> Het grootste probleem is dat *zich/*hem iedereen//iedereen zich/hem* maar
> manager wil noemen (zonder dat hij er geschikt voor is).
> the biggest problem is that SE/PRON everyone//everyone SE/PRON PART
> manager wants call without that he is suitable for it is
> 'The biggest problem is that everyone wants to call him/himself a manager,
> without being suitable.'

Consequently, the anaphor is without stress (29a–b); in (29a), the internal stress of the NP can be on *zelf*. In the case of PPs, the stress can end up on the P-head in locative/directional PPs (29d) but not in the case of prepositional objects (29c).

(29)

   a. Adam$_i$ haat zichZELF$_i$/*ZICH$_i$.
       Adam hates himself
   b. Adam$_i$ gedraagt zich$_i$/*ZICH$_i$.
       Adam behaves SE
   c. Adam$_i$ gelooft in zichZELF$_i$/*IN zichzelf$_i$.
       Adam believes in himself
   d. Adam$_i$ legt het boek achter zich$_i$/*ZICH$_i$/ACHTER zich$_i$.
       Adam puts the book behind SE

Zich also fails to undergo topicalization. This is independent of the thematic properties of its verb. Thus, in (30), only the SELF-form can be topicalized.

(30)

Zichzelf/*zich wassen de kinderen.
'Themselves the children wash.'

German *sich* bears stress in some and is unstressed in other positions (Everaert, 1986). The positions in which *sich* may bear stress coincide with the positions in which Dutch has *zichzelf*.[36] In positions where *sich* may not bear stress, Dutch has *zich*.[37]

(31)

   a.   Adam$_i$ hasst SICH$_i$.
           Adam hates himself
   b.   Adam$_i$ spricht über SICH$_i$.
           Adam speaks about himself
   c.   Adam$_i$ benimmt sich$_i$/*SICH (gut).
           Adam behaves himself (well)
   d.   Adam$_i$ legt das Buch hinter sich$_i$/*SICH.
           Adam puts the book behind himself

Just like Dutch *zich*, unstressable *sich* cannot be topicalized:

> (32)
>
> *Sich benimmt Adam gut.
> SE Adam behaves well

Variations in stress are significant indicators of differences in structure given a theory of phrasal stress as in Cinque (1993). Phrasal stress is determined by the syntactic structure; conversely, the stress pattern that obtains must reflect the syntactic structure. If so, unstressable *sich* originates in the D-position with an empty (or no) NP complement (33a), just like its Dutch counterpart. Stressable *sich* must originate in the N-position. (Note that *being stressable* does not entail *being stressed*.) This means that stressable *sich* may reflect a complex structure as in (33b), with *sich* being a nominal head moved to D (Longobardi, 1994, p. 996, see also Longobardi, 1996).

> (33)
>
> a. $[_{D/\pi P}$ sich $[_{NP} \varnothing]]$
> b. $[_{D/\pi P}$ sich $[_{NP}$ ~~sich~~$]]$

The idea that German *sich* reflects a dual structure is supported by Gast and Haas (2008). They show that there is a use of *sich* as a clitic and *sich* with full pronominal structure, including the capacity to bear stress, appear in PPs, among others. Reciprocal interpretation is only contributed by clitic *sich*, see the contrast between (34) and (35):

> (34)
>
> SICH konnten die Spieler nicht leiden, aber sie mochten den Trainer.
> SE   could   the players not bear   but they liked the coach
> 'The players couldn't bear themselves/*each other, but they liked the coach.'

> (35)
>
> Die Spieler konnten sich nicht leiden ….
> The players could not bear themselves/each other ….

In (34), *sich* is fronted—and stressed. Although a reading in which the players did not like each other while they do like the coach is pragmatically preferred to the reflexive reading, this reading is not available. Moreover, *sich* cannot have the reciprocal meaning either if it is coordinated with another noun phrase (Gast & Haas, 2008, p. 319), again a use where it is in non-clitic position.[38]

> (36)
>
> Erst lobten die Spieler SICH und dann die GEGNER.
> First praised the players SE and then the opponents
> 'The players first praised themselves/*each other and then their opponents.'

Thus, in its tonic use, *sich* has the structure of a doubled pronoun (33b) and can license reflexivity; just like in other languages, doubled pronouns can.[39]

5. Local and Non-Local Binding

5.1 Dutch and German

The binding of SELF-anaphors in Dutch and German is always strictly local. Long-distance binding of *zich/sich* is possible but is more limited (Dutch: Everaert, 1986; German: Fischer, 2004b; Reis, 1976) than the long-distance binding of Icelandic *sig* and Norwegian *seg* (see Sections 5.3–5.4).[40] *Zich/sich* in *te/zu*-infinitives (corresponding to *to*-infinitives) cannot be bound from the outside, see Dutch (37) and German (38), whereas *zich* in causative (39a) or perception (39b) verb complements can.[41]

> (37)
>
> Ik hoor dat Ali$_i$ *Piet* gevraagd heeft [*PRO* een boek voor *zich$_i$/*zichzelf$_i$/haar$_i$ mee te brengen].
> I hear that Ali Peter asked has a book for SE/SE-SELF/PRON with to bring
> 'I hear that Ali has asked Peter to bring him a book.'

> (38)
>
> Hans$_i$ befahl Peter [*PRO* ihn$_i$/*sich$_i$/*sich$_i$ selbst jeden Tag zu rasieren].
> Hans ordered Peter PRON/*SE/*SE SELF every day to shave
> 'Hans ordered Peter to shave him every day.'

(39)

a. Jan$_i$ hoorde Maria een lied voor zich$_i$ /hem$_i$/*zichzelf$_i$ fluiten.
   John heard Mary a song for SE/him/SE-SELF whistle
b. Johann$_i$ hörte Maria ein Lied für sich$_{\%i}$/ihn$_i$/*sich selbst$_i$ pfeifen.
   John heard Mary a song for SE/PRON/SE-SELF whistle
   'Jan heard Mary whistle a song for him.'

This latitude is restricted to *zich* in PPs. With *zich* in direct object position, only local binding is possible (in (40a) both readings are pragmatically OK; in (40b), the local reading is pragmatically disfavored, but the non-local reading is still impossible). The same holds for the German examples (41). In Dutch, replacing *zich* with a pronominal is less than felicitous under the intended interpretation:[42]

(40)

a. Jan$_i$ voelde Zeyna$_j$ zich$_{*i/j}$/zichzelf$_{*i/j}$ /hem$_{??i}$ aanraken.
   John felt   Zeyna   SE/ SE-SELF touch
   'John felt Zeyna touch herself.'
b. Jan$_i$ hoorde Zeyna$_j$ zich$_{*i/??j}$/zichzelf$_{*i/j}$/hem$_{??i}$ verwensen.
   John heard   Zeyna SE/ SE-SELF   curse
   'John heard Zeyna curse herself.'

(41)

a. Johann$_i$ hörte Maria$_j$ sich$_{*i/j}$/sich selbst$_{*i/j}$ verteidigen.
   John heard Mary SE/SE-SELF defend
   'John heard Mary defend him/herself'
b. Johann$_i$ hörte Maria$_j$ sich$_{*i/j}$/sich selbst$_{*i/j}$ verwünschen.
   John heard Mary SE/SE-SELF curse
   'John heard Mary curse him/herself'
c. Karl$_i$ ließ Paul$_j$ sich$_{*i/j}$/ihn$_{i/*j}$/ihn selbst$_{i/\%j}$ rasieren.
   Charles let Paul SE/PRON/PRON-SELF shave
   'Charles let Paul shave him/himself.'

For some Dutch speakers, indirect object *zich* allows a non-local reading (42a); for German (42b), this seems to be excluded (Grewendorf, 1983; Reis, 1976).[43] A pronoun is fine:

(42)

   a. Noa$_i$ liet Marie$_j$ zich$_{i/??j}$/zichzelf$_{*i/j}$/hem$_{i/*j}$ een boek brengen.
      Noa let Mary   SE/SE-SELF/PRON   a   book bring
      'Noa let Mary bring him/herself a book.'
   b. Karl$_i$ ließ Paul$_j$ sich$_{*i/j}$/ihm$_{i/*j}$ ein Buch besorgen.
      Charles let Paul SE/PRON a book bring
      'Charles let Paul bring SE/him a book.'

With causative ECM constructions, judgments about the embedded object *hem* of a grooming verb get sharper in Dutch; see the contrast between (40) and (43a) (with some inter-speaker variation); the embedded indirect object *hem* (42a) is still fine, nonetheless. In German, the counterpart of (43a) is fine, however (Gunkel, 2003, p. 116).

(43)

   a. Noa$_i$ liet Marie$_j$ hem$_{*i}$ wassen.
      'Noa let Mary wash him.'
   b. Karl$_i$ ließ Paul$_j$ ihn$_i$/*sich$_i$ rasieren
      Charles let Paul him/SE shave
      'Charles let Paul shave him.'

For German, Gunkel (2003), partially based on Reis (1976) and Grewendorf (1983), discusses one more dimension of variation in this domain: prepositional object versus adjunct.[44] From a comparative perspective, it is important that German exhibits the same type of restrictions here as Dutch, unlike the Scandinavian languages.[45]

5.2 Mainland Scandinavian

The Scandinavian languages allow non-local antecedents for SE-anaphors in a larger domain. While in Dutch and German non-local binding is restricted to bare infinitives, Scandinavian languages typically allow it in their counterparts of *to*-infinitives. Example (44) illustrates long-distance binding in Norwegian (Hellan, 1988, pp. 68–71, 1991, pp. 30–31). For Hellan, SELF-anaphors are strictly locally bound: For both possessive and non-possessive anaphors, the upward bound on the binding domain is the minimal tensed S; see (45):[46]

(44)

    a. Jon$_i$ hørte meg snakke om seg$_i$ (*selv).
       John heard me talk about himself
    b. Jon$_i$ bad   oss forsøke å få deg til å snakke pent om   seg$_i$.
       John asked us (to).try to get you for to talk   nicely about SE
    c. Jon$_i$ bad   oss forsøke å få deg til å snakke pent om   boken sin$_i$.
       John asked us (to).try to get you for to talk   nicely about book SE$_{POSS}$
       'John asked us to try to get you to talk nicely about him/his book.'

(45)

*Jon$_i$ var ikke klar over at vi hadde snakket om   seg$_i$.
John was not aware over that we had   talked about SE

For cases like (44), the restriction is not disputed, but there are varieties of Norwegian with substantially different patterns (Johnsen, 2008, 2009). For instance, in some varieties, *seg selv* allows non-local binding, although in that case *selv* is never required (Lødrup, 2009).[47] Other varieties even allow non-local binding out of finite complements, as in (46) (Moshagen & Trosterud, 1990; see also the discussion in Strahan, 2003):[48]

(46)

    a. Ho$_i$ truddj [at dæmm bestannjdi tænnkt på sæ$_i$].
       She believed that they always thought on SE
       'She believed that they always thought of her.'
    b. Han$_i$ va rædd [at dæm skull flir åt sæ$_i$].
       He was afraid that they should laugh at SE
       'He was afraid that they would laugh at him'

Johnsen (2008, 2009) presents an extensive discussion of the long-distance binding of SE-anaphors in the Askim dialect. Unlike the variety of Norwegian described by Hellan, Johnsen reports strong intervention effects reflecting the referential properties of intervening subjects (first- and second-person pronouns and referential third-person expressions). In this variety, the equivalents of (44) are decisively out. Lødrup (2009) mentions the inanimacy of intervening antecedents as a relevant factor.

While it may be tempting to relate such anaphoric dependencies across finite clause boundaries to logophoricity, logophoricity is not the crucial factor (Johnsen, 2008; Lødrup, 2009; Strahan, 2001). For instance, Johnsen notes that the verb class of the matrix verb is relevant, and also distinguishes between finiteness and tensedness, arguing that the complement must be *tenseless* rather than *non-finite* in order to allow *seg* to have an antecedent from the outside.

5.3 Icelandic and Faroese

Icelandic and Faroese manifest an additional factor. As outlined in Thráinsson (1976), *sig* in Icelandic may take a long-distance antecedent when the clause containing *sig* is infinitive or subjunctive.[49] However, if *sig* is contained in an indicative clause, it can only be locally bound. The same applies to the possessive anaphor:

(47)

a. Jón$_j$ skipaði Pétri$_i$ [að PRO$_i$ raka$_{\text{infinitive}}$ sig$_{i/j/*k}$ á hverjum degi].
   John ordered Peter to   shave   SE   every day
b. Jón$_j$ segir [að Pétur$_i$ raki$_{\text{subjunctive}}$ sig$_{i/j/*k}$ á hverjum degi].
   John says that Peter shaves   SE   every day
c. Jón$_j$ veit [að Pétur$_i$ rakar$_{\text{indicative}}$ sig$_{i/*j/*k}$ á hverjum degi].
   John knows that Peter shaves   SE   every day

Note that Icelandic *sjálfan sig* (and Faroese *seg sjálvan*) must be bound in their local domain.

There are two groups of proposals in the literature to account for non-local binding of *sig*. One line, for instance Anderson (1986), argues for a unified binding analysis of long-distance *sig* in subjunctives and infinitives. The other approach, for instance Reuland and Sigurjónsdóttir (1997), argues thatlong-distance *sig* in subjunctives and infinitives involves different processes. The latter involves a syntactic dependency; the former, a discourse process involving logophoricity. A characteristic of the logophoric use of pronouns is their use in "reportive contexts," referring back to an individual (other than the speaker-narrator) whose speech, thought, feeling, or point of view is reported on in the sentence (from Maling, 1984, pp. 211, 231), which according to Sigurðsson (1990), sums up the semantic properties of *sig* in such cases. Charnavel (2020a), however, suggests that all non-local binding is mediated by a logophoric operator.

Evidence that at least some anaphoric dependencies out of subjunctives involve means beyond the structural binding theory is the fact that c-command is not required, as in (48) (Maling, 1984, p. 222),[50] and the fact that in some cases a linguistic antecedent may even be absent, as in (49) (Sigurðsson, 1986, 1990; Thráinsson, 1991):

(48)

a. [DP Skoðun Jónsᵢ] er [að sigᵢ,ₐcc vantisubj hæfileika].
   opinion John's is that SE   lacks   talents
   'John's opinion is that he lacks talents.'
b. [DP Álit Jónsᵢ]ⱼ virðist [tⱼ vera [að ég hatisubj sigᵢ]].
   belief John's seems   be   that I hate   SE
   'John's belief seems to be that I hate him.'
c. Björn sagði Pétri frá [DP ósk Jónsᵢ] um [að Ari sýndisubj sérᵢ virdingu].
   Björn told Peter about wish John's about that Ari showed SE respect
   'Björn told Peter about John's wish that Ari showed him respect.'

(49)

María var alltaf svo andstyggileg. þegar Ólafurⱼ kæmi segði hún sérᵢ/*ⱼ
áreiðanlega að fara …
Mary was always so nasty. When Olaf would come, she would certainly
tell himself [the person whose thoughts are being presented - not Olaf] to
leave.

Passives in Icelandic do not, in general, allow their subject to serve as a long-distance antecedent for *sig* in the cases considered (Maling, 1984, p. 232; Sigurðsson, 1990, p. 336). This is in line with the position that the use of *sig* in embedded subjunctives is governed by discourse factors: Since a derived subject of a passive does not carry the perspective or point of view of the sentence, it cannot serve as an antecedent for *sig.*

The role of perspective is also illustrated by the minimal pair in (50) (from Sells, 1987, p. 451), with (50a) reporting from the child's point of view, whereas in (50b), it is the speaker who reports:

(50)

a. Barniðᵢ lét ekki í ljós [að það hefðisubj verið hugsað vel um sigᵢ].
   The child put not in light that there had been thought well about SE
   'The child didn't reveal that SIG had been taken good care of.'
b. *Barniðᵢ bar þess ekki merki [að það hefðisubj verið hugsað vel um sigᵢ].
   The child bore it not signs that there had been thought well about SE
   'The child didn't look as if SIG had been taken good care of.'

The question is, then, whether binding into infinitives is subject to stricter requirements. As Reuland and Sigurjónsdóttir (1997) point out, in (51) *María* can serve as an antecedent for *sér*, despite being a passive subject, because in the infinitival domain, structural c-command is sufficient.[51]

(51)

María$_j$ var sögð (af Jóni$_i$) [t$_j$ hafa$_{inf}$ látið [mig þvo$_{inf}$ sér$_{j/*i}$]].
Mary was said (by John) have made me wash SE
'Mary was said (by John) to have made me wash her.'

This contrasts with (52), where the complement is subjunctive:[52]

(52)

Pétri$_j$ var sagt (af Jóni$_i$) [að ég elskaði$_{subj}$ sig$_{*i/*j}$].
Peter was told (by John) that I loved SE

Furthermore, unlike Mainland Scandinavian, Icelandic shows complementarity in the infinitival domain (53a), but no complementarity in its counterparts in the subjunctive domain (53b), from Thráinsson (1979, p. 290, 1991, p. 55):

(53)

a. Jón$_i$ leyfði mér að raka sig$_i$/*hann$_i$.
   Jon allowed me for/to shave SE/PRON
   'John allowed me to shave him'
b. Jón$_i$ sagði [að ég hefði$_{subj}$ svikið sig$_i$/hann$_i$].
   John said that I had betrayed SE/PRON
   'John said that I had betrayed him.'

This contrast follows if binding of *sig* in the infinitival domain involves a syntactic dependency, whereas logophoric interpretation does not (Reuland, 2001, 2011).[53]

Barnes (1986) provided an initial description of Faroese, which is extended by Thráinsson et al. (2004/2012) and Strahan (2009). The present overview is based on the facts they provide.[54]

Faroese differs from Icelandic in that its verbal inflectional system is impoverished, marking only singular versus plural, except for the first-person present, and that it has lost the subjunctive.

Like in Icelandic, its simplex anaphor *seg* and the possessive anaphor *sín* can be non-locally bound.[55] Thráinsson et al. note that the basic rules for the interpretation of possessive and non-possessive reflexives are virtually identical, although there is a tendency in modern Faroese to use the possessive pronominal when the antecedent is plural, as in Danish. Unlike Icelandic, Faroese has no strong "subject orientation." In (54), with a non-subject antecedent, the anaphor is possible as well, showing an absence of complementarity, however, contrary to binding by a subject, as in (55):

(54)

a. Vit hittu Jógvan$_i$ i heima hjá sær$_i$/honum$_i$.
   we met Jógvan$_{ACC}$ at-home with SE/PRON
   'We met Jógvan at his home.'
b. Eg rætti Kjartan$_i$ klæðini   hjá sær$_i$/honum$_i$..
   I handed Kjartan$_{DAT}$ clothes.the$_{ACC}$ with SE/PRON
   'I handed Kjartan his clothes.'

(55)

a. Jógvan$_i$ hitti meg heima hjá sær$_i$/honum $_{*i/j}$.
   Jógvan met me$_{ACC}$ at-home with SE/him
   'Jógvan met me at his home.'
b. Kjartan$_i$ rætti mær klæðini   hjá sær$_i$/honum$_{*i/j}$.
   Kjartan handed me$_{DAT}$ clothes.the$_{ACC}$ with SE/PRON
   'Kjartan handed me his clothes.'

There is also a lack of complementarity between *seg* and a bound pronominal in the infinitival domain:

(56)

Jógvan$_j$ bað meg$_j$ PRO$_j$ raka sær$_i$/honum$_i$.
'Jógvan asked me to shave SE/him.'

Objects are unavailable as non-local antecedents, however:

(57)

> Eg$_i$ lovaði Jógvani$_j$ PRO$_i$ at raka honum$_j$/*sær$_j$.
> 'I promised Jógvan to shave him.'

Despite the absence of subjunctive morphology Faroese follows the pattern of Icelandic rather than that of Norwegian, in easily allowing an antecedent of *seg* or *sín* across a finite clause boundary. Note, however, that this is mostly found in the complements of verbs corresponding to English "say/believe/want/learn(information)/feel/intend":[56]

(58)

> a. Hann$_i$ sigur, at eg havi sligið seg$_i$/hann$_{i/j}$.
>   he says that I have hit SE/PRON
>   'He says that I have hit him.'
> b. Hon$_i$ sigur, at eg havi svikið seg$_i$/hana$_{i/j}$.
>   She says that I have betrayed SE/PRON
>   'She says that I have betrayed her.'

Much like in Icelandic, in Faroese, the necessary context can also be provided by a nominal:

(59)

> Vón hennara$_j$ var, at sær$_j$ fór at dáma tann nýggja prestin.
> hope her   was that SE for to like the new minister
> 'Her hope was that she was going to like the new minister.'

Reflexives in relative clauses or adjunct clauses cannot in general have an antecedent from the outside. However, in an appropriate context, *seg* may occur without a linguistic antecedent at all, as in (60), modified after Barnes (1986, p. 124, citing Joensen, 1977).

(60)

'One evening [when] he was drunk, it had emerged from him (i.e., from what he said) that he was sorry to have behaved like that towards Elin Maria. Fate had perhaps determined the course of events, and he did not want to run away from his responsibilities now he was in that position with Sigrid (i.e., had made her pregnant).'
Hon hevði meiri krav upp á seg enn hin.
'She had a greater claim on SE than the other (woman).'

Here *seg* refers to the male protagonist of the preceding text (possibly the speaker with an internal monologue), much like *Olaf* in (49).

The fact that Faroese behaves much like Icelandic with respect to non-local anaphora, without having a subjunctive may seem unexpected. However, the issue this raises is not necessarily fundamental. For instance, in approaches based on the assumption that the subjunctive represents a particular type of modal operator (Reuland & Sigurjónsdóttir, 1997), it would be straightforward to assume that in Faroese, this operator is present in the lexical representation of the licensing verbs or nominals, unlike Icelandic, where it is realized separately (and selected for), or Norwegian, where it would be absent. A principled solution will require more in-depth research, however.

6. Animacy and Exemption

This section addresses some issues that have been mentioned in the literature, but often only in passing. They are of theoretical importance, and that is why we highlight them here.

6.1 Animacy Effects

Recent theorizing highlights the importance of animacy of the antecedent in non-local binding. It plays a role in how to account for non-local binding vis-à-vis the binding conditions (Charnavel & Sportiche, 2016, for French; Zubkov, 2018, and Reuland & Zubkov, 2022, for Russian; see also Charnavel, 2020a).

6.1.1 Dutch, German, and Frisian

Despite the limited nature of non-local binding in Dutch and German, an animacy effect can be observed in cases with an anaphor in a noun complement: ((61a) vs. (62a)) for Dutch and ((61b) vs. (62b)) for German.[57]

(61)

a. Alex$_i$ bekritiseerde onze houding ten opzichte van zichzelf$_{i,}$.
b. Alex$_i$ kritisierte unsere Haltung sich$_i$ (*selbst) gegenüber.
   'Alex criticised our attitude towards himself.'

(62)

a. De bijbel$_i$ bekritiseert onze houding ten opzichte van zichzelf$_{*i}$.
b. Die Bibel$_i$ kritisiert unsere Haltung sich$_{*i}$ (selbst) gegenüber.
   'The bible criticises our attitude towards itself.'

For Dutch (61a) is fine, but (62a) is entirely impossible. Replacing the SE–SELF anaphor in (62a) by PRON–SELF (see Section 6.2) leads to an improvement but is still not felicitous.[58] In German, (61b) may be marginal, but (62b) is impossible. With the pronominal, binding is acceptable: *ihm* (for (61b))/*ihr* (for (62b)) *gegenüber*.

Causative constructions in Dutch and German show a similar effect to Russian, where animate matrix subjects can bind the anaphor *sebja* in a subordinate infinitival clause, but inanimate matrix subjects cannot (Reuland & Zubkov, 2022). Although in Dutch and German non-local *zich/sich* in object position is only marginally possible, there is nevertheless a contrast between (63a–64a) for Dutch and (63b–64b) for German:[59]

(63)

a. Alex$_i$ liet het volk$_j$ zich$_{?i}$ opnieuw beoordelen.
b. Alex$_i$ ließ das Volk$_k$ sich$_{*i/k}$ (selbst) von Neuem beurteilen.
   'Alex let the people reassess himself/itself.'

(64)

a. Dit boek$_i$ liet de lezer$_j$ zich$_{*i}$ opnieuw beoordelen.
b. Das Buch$_i$ ließ den Leser$_k$ sich$_{*i/k}$ (selbst) von Neuem beurteilen.
   'This/the book let the reader reassess itself/himself.'

When non-local *zich/sich* is in a PP (65–66) the contrast becomes clearer.[60]

(65)

   a. Alex$_i$ liet het volk$_k$ zich$_k$ van zich$_{i/*k}$ afkeren.
   b. Alex$_i$ ließ das Volk$_k$ sich von sich$_{i/k}$ abwenden.
      'Alex let the people from himself/itself turn away.'

(66)

   a. Het boek$_i$ liet de lezers$_k$ zich$_k$ van zich$_{*i/*k}$ afkeren.
   b. Das Buch$_i$ ließ den Leser$_k$ sich von sich$_{*i/k}$ abwenden.
      'The book let the reader from itself/himself turn away.'

In (65), *Alex* is marginally acceptable as an antecedent of *zich/sich*; *het boek/das Buch* in (66), is not.[61]

Interestingly, in Frisian, an animacy effect does obtain in the equivalent of Dutch (61), be it less clear:[62]

(67)

   a. Alex$_i$ bekritisearre ús$_j$ hâlding tsjinoer himsels$_i$.
      Alex criticized our attitude towards himself
   b. ?De bibel$_i$ bekritisearret ús$_j$ hâlding tsjinoer himsels$_i$.
      The bible criticizes our attitude towards itself

In causatives, a simple pronoun is fine as in (68), with the proviso that the causative *litte* 'let' seems, in general, less felicitous with a transitive VP-complement.

(68)

   a. Alex$_i$ liet ús him$_i$ opnij beoardielje.
      Alex let us reassess himself/herself
   b. Dit boek$_i$ liet ús it$_i$ opnij beoardielje.
      This book let us reassess itself/herself

6.1.2   Mainland Scandinavian

For Scandinavian, we limit our discussion to Norwegian but note that Anward (1975) discusses animacy effects in Swedish for local and non-local binding. Consider Norwegian (69):[63]

(69)

   a. Alex$_i$ kritiserte vår holdning til seg$_i$ (??selv)/ham$_i$ (*selv).
       Alex criticized our attitude towards SE(SELF)/PRON(SELF)
   b. Denne boken$_i$ kritiserte vår holdning til seg$_i$ (??selv)/ham$_{?i}$ (selv)/den$_i$ (*selv).
       This book criticized our attitude towards SE(SELF)/PRON(SELF)/it(SELF)

In (69a), *seg/ham* are preferred; *seg selv* is less felicitous, and *ham selv* is bad, although it is structurally similar (Lødrup, 2007a, 2007b).[64] In (69b), *seg* or *den* is preferred; *seg selv* sounds strange, and *den selv* is bad.[65]

Possessives show the pattern in (70):[66]

(70)

   a. Alex$_i$ kritiserte vår holdning til sin$_i$/hans$_i$ søster.
       Alex criticized our attitude towards his sister
   b. Denne boken$_i$ kritiserte vår holdning til sine$_i$/dens$_i$ forfattere.
       This book criticized our attitude towards its authors

In (70a), both options are available. As to (70b), Bokmål Norwegian uses *han/hans* for referents that are male rather than just grammatically masculine, so here, *han/hans* cannot be used. Both the possessive anaphor *sine* and the pronominal *dens* 'its' are possible.[67]

To facilitate comparison with non-local binding in Dutch and German, binding into bare infinitives is considered separately from non-local binding in general. The relevant pattern is given in (71):

(71)

a. Alex$_i$ lot folket vurdere seg$_i$ (*selv)/ham$_i$ (*selv).
Alex let the people assess SE (SELF)/him (SELF)
b. Boken$_i$ lot leseren vurdere seg$_i$ (*selv)/den$_i$ (*selv).
The book let the people assess SE(SELF)/it(SELF)

In (71a), both *seg* and *ham* are acceptable. In (71b), *den* would be preferred.

The following cases of non-local binding in *to*-infinitives show an animacy effect:

(72)

a. Disse faktaene$_i$ tvang Anya til å kontrollere seg$_{i*}$/sin$_{*i}$ fortolking //
fortolkingen av dem$_i$ på nytt.
These facts forced Anya   to check   SE/SE$_{POSS}$ interpretation //
Interpretation by him anew.
b. (For training purposes) Generalen$_i$ tvang Anya til å kontrollere seg$_i$/sine$_i$
legitimasjonspapirer på nytt.
(For training purposes) The general forced Anya to check SE/SE$_{POSS}$
credentials anew.

Disse faktaene 'these facts' is not acceptable as an antecedent for an SE-anaphor but is for a bound pronominal; *generalen* 'the general', by comparison, is acceptable (with *sine* being ambiguous).[68]

6.1.3   Icelandic and Faroese

Observe the following examples from Icelandic:

(73)

a. Alex$_i$ gangrýndi afstöðu okkar gagnvart (?sjálfum) sér$_i$//??honum$_{??i}$ (sjálfum)
Alex criticises attitude our towards SE/SELF-SE/PRON/PRON-SELF
b. Þessi bók$_i$ gagnrýnir afstöðu okkar gagnvart (sjálfri) sér$_{*i}$/henni$_i$ (?sjálfri)
this book criticises attitude our towards SE/SELF-SE/PRON/PRON-SELF

In (73a), the SE-anaphor is best, and the complex SE-anaphor is OK if emphatic; the pronouns *honum/honum-SELF* sound odd but are not impossible, rather reflecting a difference in point of view. On (73b), reports differ. One report accepts *sér* only if *bók* is somehow personified and, otherwise, only accepts the pronominal. Another report accepts *sér* without qualifications but rejects the pronominal forms.

Icelandic possessives show the pattern in (74):

(74)

a. Alex$_i$ gagnrýndi afstöðu okkar gagnvart systur sinni$_i$/hans$_{??i}$.
   Alex criticised attitude our towards sister SE$_{POSS}$/PRON$_{POSS}$
b. Þessi$_i$ bók gagnrýnir afstöðu okkar gagnvart höfundi sínum$_{*i}$/hennar$_i$.
   this book criticises attitude our towards authors SE$_{POSS}$/PRON$_{POSS}$

In (74a), the reflexive possessive is most natural; for the non-reflexive possessive, one report states that it sounds odd and would involve a shift of point of view. In (74b), the reflexive *sínum* is weird (in line with a remark that the book has to be construed as animate). According to one report, the genitive pronoun is fine; according to another report, it is a question mark.

Next consider binding into bare infinitives, to allow comparison with Dutch, German, and Norwegian. In Icelandic, non-local binding of an object anaphor is, like in Norwegian, straightforward:

(75)

a. Alex$_i$ lét fólkið meta (?sjálfan) sig$_i$/hann$_{*i}$ (sjálfan).
   Alex let the people assess SE/SELF-SE/PRON/PRON-SELF
b. Bókin$_i$ lét lesandann meta (*sjálfa) sig$_i$/hana$_{*i}$ (sjálfa).
   the book let the reader assess SE/SELF-SE/PRON/PRON-SELF

In (75a), SE is fine, and SELF-SE is emphatic; the versions with the personal pronoun are bad. Example (75b) sounds pragmatically odd, but to the extent it is possible (without imagining an animate book), SE is reported as the only possibility. An emphatic variant *sig sjálfa* is reported to be hardly imaginable, and the pronominal options are both impossible. Example (76) shows the options in case there is more than one potential antecedent:

(76)

> Kóngurinn$_i$ bað Alex$_j$ að láta fólkið meta (sjálfan) sig$_i$.
> The king asked Alex to let the people assess SE/SELF-SE

Here both antecedents are possible for both *sig* and *sjálfan sig* (if emphatic/contrastive).[69]

For animacy effects, consider (77−79) from Icelandic:

(77)

> a. Hershöfðinginn$_i$ neyddi Önnu til að skoða sig$_i$/hann$_{*i}$ aftur.
>   the general   forced Anna to check SE/PRON   again
> b. Hershöfðinginn$_i$ neyddi Önnu til að skoða skilríki sín$_i$/hans$_{?*i}$ aftur.
>   the general   forced Anna   to check credentials SE$_{PRON}$/PRON$_{PRON}$ again

(78)

> a. *Þessar staðreyndir$_i$ þvinguðu Önju til að athuga sig$_i$ á ný.
>   these facts   forced   Anna to check   SE again
> b. *Þessar staðreyndir$_i$ þvinguðu Önju til að athuga túlkunina á sér$_i$ á ný.
>   these facts   forced   Anna to check interpretation of SE again

(79)

> a. Þessar staðreyndir$_i$ neyddu Önnu til að skoða sig$_i$/þær$_{?*i}$ aftur.
>   these facts forced   Anna   to check SE/PRON again
> b. Þessar staðreyndir$_i$ neyddu Önnu til að skoða túlkun sína$_{*i}$/þeirra$_i$ aftur.
>   these facts forced   Anna to check interpretation SE$_{PRON}$/PRON$_{PRON}$ again

The pattern of (77) with an animate antecedent is straightforward: The binding of the anaphor is allowed, whereas the pronominal is ruled out or very marginal. With an inanimate antecedent, the received view is that the reflexive is ruled out, as in (78).[70] There is also a different pattern, however, as in (79a). With the possessive, however, one sees that, again, the pronoun is required (79b). The nature of this variation merits further investigation.

Faroese shows a clear animacy requirement (Strahan, 2009, p. 30):

(80)

a. *[Fíggjarliga kreppan]$_i$ kravdi, at politikararnir tosaðu nógv um seg$_i$.
the financial crisis demanded that the.politicians talked much about SE
b. Maria$_i$ kravdi, at granskararnir tosaðu nógv um seg$_i$.
Maria demanded that the.researchers talked much about SE

6.2 Exemption

One speaks of exemption when the binding conditions (whatever the form they take) do not apply to an anaphor in a certain position, like *himself* in Pollard and Sag's (1994, p. 270) famous example in (81a) or Jackendoff's (1992) (81b):

(81)

a. John$_i$ was going to get even with Mary. The picture of himself$_i$ in the paper would really annoy her, as would the other stunts he had planned.
b. The queen$_i$ demands that books containing unflattering descriptions of herself$_i$/her$_i$ will be burned.

For sake of comparison, consider the following counterparts of (81b) in Dutch (82a) and German (82b):

(82)

a. De koningin$_i$ eist dat boeken met onflatteuze beschrijvingen van zich$_{*i}$/zichzelf$_{*i}$/haarzelf$_i$/haar$_i$ verbrand worden.
b. Die Königin$_i$ fordert, dass Bücher mit unvorteilhaften Beschreibungen von sich$_{*i}$/sich selbst$_{*i}$/ihr selbst$_i$/ihr$_i$ verbrannt werden.
The queen demands that books with unflattering descriptions of SE/SE-(SELF)/PRON-SELF/PRON be burned
'The queen demands that books containing unflattering descriptions of herself/her will be burned.'

The element *zelf* in Dutch not only combines with first- and second-person pronouns (Section 2.1) but also with third-person pronominals. Koster (1985) argued that the result (*haarzelf* in (82a)) is an anaphor that is not subject to a local binding requirement (contrary to Norwegian *ham selv*, which needs to be locally bound; Hellan, 1988).[71] But the antecedent must carry the

perspective of the sentence, very similar to logophoric *himself* in English (Reinhart & Reuland, 1993). Unlike PRON-SELF elements, SE(-SELF)-anaphors in this exempt position are impossible, showing that the phi-feature deficiency of SE in Dutch still requires binding. The same applies to German.

Since Frisian lacks SE-anaphors, the only issue to check is whether its SELF-anaphors can be exempt:

(83)

De keninginne$_i$ easket dat boeken$_j$ mei minne beskriuwingen fan harsels$_i$/har$_i$ ferbaarnd wurde sille.
The queen demands that books with unflattering descriptions of PRON-SELF/PRON burned be will

They can. As in the case of English, the *self*-element cannot reflexivize the verb in these environments, and the interpretation is determined by the same discourse conditions.

Just like Dutch and German, Norwegian has no exemption effect for SE(-SELF) anaphors (Lødrup, 2009). The equivalent of (81a) is given in (84), and is impossible for *seg/seg selv*:

(84)

John$_i$ skulle bli skuls med Mary. *Bildet av seg (selv)$_i$ i avisen
John should get even with Mary. picture.DEF of SE SELF in paper.DEF
ville virkelig ergre henne.
would really annoy her
'John was going to get even with Mary. The picture of himself in the paper would really annoy her.'

The same applies to cases like (85):

(85)

*Bildet av seg (selv)$_i$ i Newsweek dominerte Johns$_i$ tanker.
picture.DEF of SE SELF in Newsweek dominated John's thoughts
'The picture of himself in Newsweek dominated John's thoughts.'

As Lødrup (2009, p. 122) puts it, this means that "there is no reason to assume that Norwegian has reflexives that are 'outside' binding theory proper," and they are not "logophoric" in the sense of Reinhart and Reuland (1993). This is supported by the fact that possessive *sin* does not allow partial binding in (86), constructed after the French example in Charnavel (2020b, p. 677), contra Charnavel's prediction:

> (86)
>
> *Zoé$_i$ og Paul$_k$ bad meg finne skygge for sin$_i$ egen datter og naboens datter.
> Zoé$_i$ and Paul$_k$ asked me to provide shade for her$_i$ own daughter and the neighbor's daughter.'

Icelandic also does not show exemption effects for SE/SE-SELF-anaphors:[72]

> (87)
>
> Jón$_i$ ætlaði að hafna sín á Maríu.
> John intended to revenge SE on Mary
> Myndin af *sér$_i$/honum$_i$ í blaðinu myndi ergja hana mikið.
> The picture of SE/PRON in the paper would annoy her a lot

To license a reflexive in such a case, one would need a narrative context under a verb taking a subjunctive complement, as in (88):[73]

> (88)
>
> Jón$_i$ sagði að hann ætlaði að hefna sín á Maríu.
> John said that he intended$_{SUBJ}$ to revenge SE on Mary
> Myndin   af sér$_i$ í blaðinu   myndi ergja   hana mikið.
> The picture of SE in the paper would annoy$_{SUBJ}$ her a lot

## 7. Understanding the Diversity

As this overview shows, the Germanic languages manifest a striking degree of diversity. Although we were able to give some impression of the dialectal diversity in Norwegian, even in the Scandinavian languages, there is more variation than could be discussed. This also applies to Dutch and, very clearly, to German. All in all, there is more variation than this overview could

possibly show. Clearly, the patterns found are beyond the scope of the canonical binding theory (Chomsky, 1981, 1986). The fact that, in languages like Frisian and Afrikaans, pronominal forms can be locally bound and, in languages like Icelandic and Faroese, anaphoric forms occur without a linguistic antecedent means that traditional conceptions of the notions of anaphor and pronominal have no theoretical status.

Yet, although there is diversity, there is no chaos. The variation there is can be understood as variation along a few dimensions. Much of the variation, including the variation between Bokmål Norwegian and the Askim dialect, and the possibility of locally bound pronominals in Frisian and Afrikaans, can be understood in terms of intervention effects on the formation of feature chains.

The relevant operation is Multiple Agree (Hiraiwa, 2001, 2005) since anaphor binding typically allows patterns where one antecedent binds anaphors in different positions that cannot be related in succession (see Giblin, 2016; Reuland & Zubkov, 2022; Zubkov, 2018, for more detail). Valuation involves single features, such as person and number, and is carried out by the closest suitable feature instance. A probe, then, is valued by the closest suitable goal, a goal is valued by the closest suitable probe. This is illustrated in (89) from Reuland and Zubkov (2022). The unvalued occurrence of φ probes and finds two other occurrences of φ in its domain, one valued, which values the probe, and a (lower) unvalued occurrence, which is simultaneously valued as well, as there is no closer probe that could have valued it here.

(89)

$$\phi{:}\_ \quad [[...\phi{:}val...]... \quad [...\phi{:}\_...]...]$$

$$\Downarrow$$

$$\phi{:}val \quad [[...\phi{:}val...]... \quad [...\phi{:}val...]...]$$
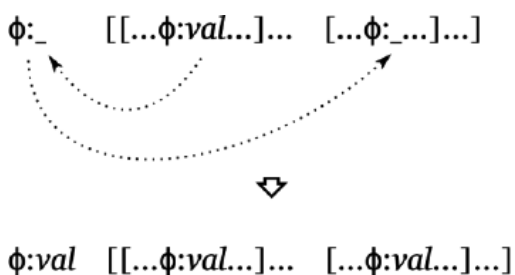
Note that in this model probing continues all the way down to the next lower probe. This pattern of intervention essentially reduces to minimality, and different types of interveners are conceivable.

A pronominal is ruled out when it is visible to the probe and the latter attempts to value it, which is an impossible operation when the pronominal is already valued for the relevant feature: a *chain condition violation* (see Reuland, 2011; Reuland & Zubkov, 2022, for details). This, then, reflects the crucial role of the reflexive being feature-deficient.

The variation between the Scandinavian languages with anaphoric possessives and the other Germanic languages without them is captured by the proposal that the obligatory prenominal definiteness marking in Dutch and German acts as an intervener that protects the possessive

pronominal in the latter languages from being targeted by Agree (Despić, 2015). That the Continental Germanic languages only allow non-local binding of SE-anaphors out of bare infinitives, whereas the Scandinavian languages allow this in a much larger domain follows from the fact that the counterparts of *to*-infinitives in Continental Germanic have a less local relation to their governing verb than their equivalents in Scandinavian, due to what is traditionally referred to as "extraposition" of *to*-infinitives (Reuland, 2011, 2017a). Thus, the syntactic configuration prevents chain formation in Continental Germanic but not in Scandinavian.

The availability of "free" anaphors in Icelandic in the domain of subjunctives may well result from the fact that the subjunctive operator blocks the formation of a syntactic chain with the candidate subject (Reuland, 2001; Reuland & Sigurjónsdóttir, 1997). This frees *sig* from the preference for syntactic binding and allows a discourse-based interpretation, giving rise to logophoricity effects. This is in line with Pollard and Xue (1998), who note the Mandarin reflexive *ziji* that reflexives avail themselves of two options for being related to their antecedents, namely, syntactic binding and discourse coreference, where the latter is available when the former is not. It is yet to be explored how this carries over to Faroese and the relevant Norwegian varieties.

Further Reading

Monographs (Mostly Focused on Germanic)

Everaert, M. (1986). *The syntax of reflexivization*. Dordrecht, The Netherlands: Foris.

Fischer, S. (2004). *Towards an optimal theory of reflexivization <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.475.5444&rep=rep1&type=pdf>* [Doctoral dissertation, University of Tübingen].

Hellan, L. (1988). *Anaphora in Norwegian and the theory of grammar*. Dordrecht, The Netherlands: Foris.

Reuland, E. (2011). *Anaphora and language design*. Cambridge, MA: MIT Press.

Rooryck, J., & Vanden Wyngaerd, G. (2011). *Dissolving binding theory*. Oxford, UK: Oxford University Press.

Safir, K. (2004). *The syntax of anaphora*. Oxford, UK: Oxford University Press.

Strahan, T. E. (2003). *Long-distance reflexives in Norwegian: A quantitative study*. München, Germany: Lincom Europa.

Thráinsson, H. (2007). *The syntax of Icelandic*. Cambridge, UK: Cambridge University Press.

Thráinsson, H., Petersen, H. P., Jacobsen, J. í L., & Hansen, Z. S. (2012). *Faroese: An overview and reference grammar*. Tórshavn, Faroe Islands: Føroya Fróðskaparfelag. (Original work published 2004)

Edited Volumes, With Many Papers on Germanic

Gunkel, L., Müller, G., & Zifonun, G. (Eds.). (2003). *Arbeiten zur Reflexivierung*. Tübingen, Germany: Niemeyer.

Hellan, L., & Koch Christensen, K. (Eds.). (1986). *Topics in Scandinavian syntax*. Dordrecht, The Netherlands: Riedel.

Koster, J., & Reuland, E. (Eds.). (1991). *Long-distance anaphora*. Cambridge, UK: Cambridge University Press.

Maling, J., & Zaenen, A. (Eds.). (1990). *Modern Icelandic syntax*. New York: Academic Press.
Nordic Atlas of Language Structures (NALS) Journal *<http://www.tekstlab.uio.no/nals#/project_info>*, various relevant contributions

Working papers in Scandinavian syntax *<https://projekt.ht.lu.se/grimm/scandiasyn/working-papers-in-scandinavian-syntax/>*

References

Anagnostopoulou, E., & Everaert, M. (1999). Towards a more complete typology of anaphoric expressions. *Linguistic Inquiry, 30*(1), 97–118.

Anderson, S. (1986). The typology of anaphoric dependencies: Icelandic (and other) reflexives. In L. Hellan & K. Koch Christensen (Eds.), *Topics in Scandinavian syntax* (pp. 65–88). Dordrecht, The Netherlands: Riedel.

Anward, J. (1975). Swedish reflexivization. In Ö. Dahl (Ed.), *Papers from the first Scandinavian conference of linguistics* (pp. 7–37). Göteborg: University of Göteborg.

Arnold, D. (2014). *Locally bound 3rd-person pronouns in Afrikaans* [BA thesis, Utrecht University, Utrecht].

Baauw, S. (2002). *Grammatical features and the acquisition of reference: A comparative study of Dutch and Spanish*. New York: Routledge.

Baauw, S., & Delfitto, D. (1999). Coreference and language acquisition. In D. Delfitto, J. Schroten, & H. de Swart (Eds.), *Recherches de Linguistique Française et Romane d'Utrecht* (Vol. XVIII, pp. 23–34). Utrecht Studies in Romance Linguistics. Utrecht: Utrecht University.

Barbiers, S., & Bennis, H. (2003). Reflexives in Dutch dialects. In J. Koster & H. van Riemsdijk (Eds.), *Germania et alia* (pp. 25–44). Groningen, The Netherlands: Universiteit Groningen.

Barbiers, S., & Bennis, H. (2004). Reflexieven in dialecten van het Nederlands: Chaos of structuur? In J. de Caluwe, G. de Schutter, M. Devos, & J. van Keymeulen (Eds.), *Taeldeman, man van de taal, schatbewaarder van de taal* (pp. 43–58). Gent, Belgium: Academia Press.

Barnes, M. (1986). Reflexivisation in Faroese. *Arkiv för Nordisk Filologi*, *101*, 95–126.

Bergeton, U. (2004). *The independence of binding and intensification* [Doctoral dissertation, University of Southern California, Los Angeles].

Broekhuis, H. (1991). Chain-government. *The Linguistic Review*, *6*, 297–374.

Charnavel, I. (2020a). *Locality and logophoricity: A theory of exempt anaphora*. Oxford, UK: Oxford University Press.

Charnavel, I. (2020b). Logophoricity and locality: A view from French anaphors. *Linguistic Inquiry*, *51*(4), 671–723.

Charnavel, I., & Sportiche, D. (2016). Anaphor binding: What French inanimate anaphors show. *Linguistic Inquiry*, *47*(1), 35–89.

Chomsky, N. (1973). Conditions on transformations. In S. Anderson & P. Kiparsky (Eds.), *A festschrift for Morris Halle* (pp. 232–286). New York: Holt, Rinehart and Winston.

Chomsky, N. (1976). On the nature of language *<https://doi.org/10.1111/j.1749-6632.1976.tb25470.x>*. *Annals of the New York Academy of Sciences*, *280*(1), 46–57. doi:10.1111/j.1749-6632.1976.tb25470.x

Chomsky, N. (1981). *Lectures on government and binding*. Dordrecht, The Netherlands: Foris.

Chomsky, N. (1986). *Knowledge of language*. New York: Praeger.

Cinque, G. (1993). A null theory of phrase and compound stress. *Linguistic Inquiry*, *24*, 239–298.

Cole, P., & Hermon, G., Sung, L.-M. (1990). Principles and parameters of long-distance reflexives. *Linguistic Inquiry*, *21*, 1–22.

Coopmans, P., & Everaert, M. (1988). The simplex structure of complex idioms: The morphological status of *laten*. In M. Everaert, A. Evers, R. Huybregts, & M. Trommelen (Eds.), *Morphology & modularity: In honour of Henk Schultink* (pp. 75–104). Dordrecht, The Netherlands: Foris.

de Vries, M. (1998). De Bindingstheorie: Derivatie en predikatie. In W. Klooster, H. Broekhuis, E. Elffers-van Ketel & J. Stroop (Eds.), *Eerste Amsterdams Colloquium Nederlandse Taalkunde* (pp. 133–168). Amsterdam: Universiteit van Amsterdam.

de Vries, M. (1999). Het schemergebied tussen pronomina en anaforen. *Nederlandse Taalkunde*, *4*, 125–160.

Despić, M. (2015). Phases, reflexives, and definiteness *<https://doi-org.proxy.library.uu.nl/10.1111/synt.12031>*. *Syntax*, *18*(3), 201–234.

Dimitriadis, A., Everaert, M., & Reuland, E. (Eds.). (2017). Studia Linguistica. Special Issue: *The world of reflexives: Universal principles and a typology of variation*', *71*(1–2).

Everaert, M. (1981). *Zich*. In S. Daalder & M. Gerritsen (Eds.), *Linguistics in the Netherlands 1981* (pp. 73–83). Amsterdam, The Netherlands: North-Holland.

Everaert, M. (1986). *The syntax of reflexivization*. Dordrecht, The Netherlands: Foris.

Everaert, M. (1991). Contextual determination of the anaphor/pronominal distinction. In J. Koster & E. Reuland (Eds.), *Long-distance anaphora* (pp. 77–118). Cambridge, UK: Cambridge University Press.

Everaert, M., & Reuland, E. (2023). *(Under)specification counts: When non-local anaphors are not exempt*. Utrecht: Utrecht University.

Faarlund, J. T., Lie, S., & Vannebo, K. I. (1997). *Norsk referansegrammatikk*. Oslo, Norway: Universitetsforlaget.

Faltz, L. (1977). *Reflexivization: A study in Universal Syntax* [Doctoral dissertation, University of California, Distributed by University Microfilms International, Ann Arbor, MI, and London, UK].

Featherston, S., & Sternefeld, W. (2003). The interaction of factors in judgments of reflexive structures: Data from object coreference in German. In L. Gunkel, G. Müller, & G. Zifonun (Eds.), *Arbeiten zur Reflexivierung* (pp. 25–50). Tübingen, Germany: Niemeyer.

Fischer, S. (2004a). T*owards an optimal theory of reflexivization* [Doctoral dissertation, University of Tübingen].

Fischer, S. (2004b). Optimal binding. *Natural Language & Linguistic Theory*, *22*, 481–526.

Fischer, S. (2015). Pronominal anaphora. In T. Kiss & A. Alexiadou (Eds.), *Syntax—Theory and analysis: An international handbook (volume 1)* (pp. 446–477). Berlin, Germany: Mouton de Gruyter.

Gärtner, M. (2015). On infinitivals hosting logophors: The case of Icelandic. *Nordic Journal of Linguistics*, *38*, 365–370.

Gast, V., & Haas, F. (2008). Reflexive and reciprocal readings of anaphors in German and other European languages. In E. König & V. Gast (Eds.), *Reciprocals and reflexives: Theoretical and typological explorations* (pp. 307–346). Berlin, Germany: Mouton.

Giblin, I. (2016). *Agreement restrictions in Mandarin long-distance binding* [Doctoral dissertation, MIT, Cambridge, MA].

Grewendorf, G. (1983). Reflexivierung in deutschen A.c.I.-konstruktionen—Kein transformations-grammatisches Dilemma mehr. In W. Abraham (Ed.), *Groninger Arbeiten zur Germanistische Linguistik* (Vol. 23, pp. 120–196). Groningen, The Netherlands: Germanistisch Instituut.

Grewendorf, G. (1989). *Ergativity in German*. Dordrecht, The Netherlands: Foris.

Gunkel, L. (2003). Reflexivierung in AcI-Konstruktionen. In L. Gunkel, G. Müller, & G. Zifonun (Eds.), *Arbeiten zur Reflexivierung* (pp. 115–133). Linguistische Arbeiten 481. Tübingen, Germany: Niemeyer.

Hellan, L. (1980). On anaphora in Norwegian. In J. Kreiman & A. E. Ojeda (Eds.), *Papers from the sixteenth regional meeting of the Chicago Linguistic Society* (pp. 166–182). Chicago, IL: Chicago Linguistic Society.

Hellan, L. (1983). *Anaphora in Norwegian and theory of binding* [Working Papers in Scandinavian Syntax 5]. Trondheim: University of Trondheim.

Hellan, L. (1988). *Anaphora in Norwegian and the theory of grammar*. Dordrecht, The Netherlands: Foris.

Hellan, L. (1991). Containment and connectedness anaphors. In J. Koster & E. Reuland (Eds.), *Long-distance anaphora* (pp. 27–48). Cambridge, UK: Cambridge University Press.

Hestvik, A. (1991). Subjectless binding domains. *Natural Language & Linguistic Theory*, *9*(3), 455–496.

Hestvik, A. (1992). LF-movement of pronouns and antisubject orientation. *Linguistic Inquiry*, *23*(4), 557–594.

Hiraiwa, K. (2001). Multiple agree and the defective intervention constraint in Japanese. In O. Matushansky, & A. Szczegielniak (Eds.), *The proceedings of the 1st HUMIT student conference in language research (HUMIT 2000)*. MIT Working Papers in Linguistics (vol. 40, pp. 67–80). Cambridge, MA: MIT Press.

Hiraiwa, K. (2005). *Dimensions of symmetry in syntax: Agreement and clausal architecture*. Cambridge, MA: MIT dissertation.

Hoekstra, J. (1994). Pronouns and case: On the distribution of Frisian *harren* and *se* "them." *Leuvense Bijdragen*, *83*, 47–65.

Hornstein, N. (2000). *Move! A minimalist theory of construal*. Oxford, UK: Blackwell.

Huang, C.-T. J., & Liu, C.-S. L. (2001). Logophoricity, attitudes, and ziji at the interface. In P. Cole, G. Hermon, & C.-T. J. Huang (Eds.), *Long-distance reflexives* (pp. 141–192). New York: Academic Press.

Huang, C.-T. J., & Tang, C.-C. J. (1991). On the local nature of the long-distance reflexive in Chinese. In J. Koster & E. Reuland (Eds.), *Long-distance anaphora* (pp. 263–282). Cambridge, UK: Cambridge University Press.

Hyams, N., & Sigurjónsdóttir, S. (1990). The development of "long distance anaphora": Cross-linguistic comparison with special reference to Icelandic. *Language Acquisition*, *1*, 57–93.

Jackendoff, R. (1992). Mme: Tussaud meets the binding theory. *Natural Language & Linguistic Theory*, *10*, 1–33.

Jayaseelan, K. A. (1997). Anaphors as pronouns. *Studia Linguistica*, *51*(2), 186–234.

Joensen, M. (1977). *Útrák: Søgur*. Tórshavn, Faroe Islands: Emil Thomsen.

Johnsen, S. (2008). *Tense and binding in perception verb* *<https://sverrestausland.github.io/>* [PhD generals paper, Harvard University, Cambridge, MA].

Johnsen, S. (2009). Non-local binding in tenseless clauses. *Proceedings of the Chicago Linguistics Society*, *45*(2), 103–116.

Keller, R. E. (1961). *German dialects: Phonology and morphology*. Manchester, UK: Manchester University Press.

Keller, R. E. (1978). *The German language*. London, UK: Faber and Faber.

Kiss, T. (2003). Die Genese der Ausnahmeanapher. In L. Gunkel, G. Müller, & G. Zifonun (Eds.), *Arbeiten zur Reflexivierung* (pp. 157–188). Tübingen, Germany: Max Niemeyer Verlag.

Kiss, T. (2012). Reflexicity and dependency. *Linguistische Arbeiten*, *547*, 155–185.

Koster, J. (1985). Reflexives in Dutch. In J. Guéron, H. Obenauer, & J.-Y. Pollock (Eds.), *Grammatical representation* (pp. 141–168). Dordrecht, The Netherlands: Foris.

Lødrup, H. (2007a). A new account of simple and complex reflexives in Norwegian. *Journal of Comparative Germanic Linguistics*, *10*, 183–201.

Lødrup, H. (2007b). Norwegian anaphors without visible binders. *Journal of Germanic Linguistics*, *19*, 1–22.

Lødrup, H. (2008). *Animacy and long distance binding*. Oslo: University of Oslo.

Lødrup, H. (2009). Animacy and long distance binding in Norwegian. *Nordic Journal of Linguistics*, *32*(1), 111–136.

Longobardi, G. (1994). Reference and proper names: A theory of N-movement in syntax and logical form. *Linguistic Inquiry*, *25*, 609–665.

Longobardi, G. (1996). *The syntax of N-raising: A minimalist theory* (pp. 1–151). OTS Working Papers 1996. Utrecht, The Netherlands: Utrecht University.

Lundquist, B. (2014a). Long Distance Binding 1: Complement clauses *<http://www.tekstlab.uio.no/nals#/chapter/20>*. *Nordic Atlas of Linguistic Structures*, *1*, 498–505.

Lundquist, B. (2014b). Long Distance Binding 2: Relative clauses *<http://www.tekstlab.uio.no/nals#/chapter/23>*. *Nordic Atlas of Linguistic Structures*, *1*.

Lundquist, B. (2014c). Middle distance binding *<http://www.tekstlab.uio.no/nals#/chapter/24>*. *Nordic Atlas of Linguistic Structures*, *1*.

Lundquist, B. (2014d). Number sensitive anaphors, and short distance pronouns *<http://www.tekstlab.uio.no/nals#/chapter/51>*. *Nordic Atlas of Linguistic Structures*, *1*.

Lundquist, B. (2014e). Reflexives without a sentence internal antecedents *<http://www.tekstlab.uio.no/nals#/chapter/25>*. *Nordic Atlas of Linguistic Structures*, *1*.

Maling, J. (1984). Non-clause-bounded reflexives in modern Icelandic. *Linguistics and Philosophy*, *7*, 211–241.

Maling, J. (1986). Clause-bounded reflexives in modern Icelandic. In L. Hellan & K. K. Christensen (Eds.), *Topics in Scandinavian syntax* (pp. 53–63). Dordrecht, The Netherlands: Riedel.

Moshagen, S., & Trosterud, T. (1990). Non-clause-bounded reflexives in Mainland Scandinavian. *Working Papers in Scandinavian Syntax*, *46*, 47–52.

Oosthuizen, J. (2013). *Obligatory reflexivity in Afrikaans: A minimalist approach* [Unpublished doctoral dissertation]. Stellenbosch: University of Stellenbosch.

Oosthuizen, J. (2015). Reflexives and reflexive constructions in Afrikaans. *Stellenbosch Papers in Linguistics Plus*, *47*, 99–127.

Pica, P. (1987). *On the nature of the reflexivization cycle* In J. McDonough & B. Plunkett (Eds.) Proceedings of NELS 17, 483–499, Amherst, MA.

Pollard, C., & Sag, I. (1992). Anaphors in English and the scope of the binding theory. *Linguistic Inquiry*, *23*, 261–305.

Pollard, C., & Sag, I. (1994). *Head driven phrase structure grammar*. Stanford, CA, and Chicago: CSLI.

Pollard, C., & Xue, P. (1998). Chinese reflexive ziji: Syntactic reflexives vs. nonsyntactic reflexives. *Journal of East Asian Linguistics*, *7*, 287–318.

Postma, G. (2004). Structurele tendensen in de opkomst van het reflexief pronomen "zich" in het 15de-eeuwse Drenthe en de Theorie van Reflexiviteit. *Nederlandse Taalkunde*, *9*(2), 144–168.

Reinhart, T. (2016). *The Theta System: Syntactic realization of verbal concepts* [OTS Working Papers in Linguistics]. Utrecht University, Cambridge, MA. Published in M. Everaert, M. Marelj, & E. Reuland (Eds.), *Concepts, syntax, and their interface: The Theta System* (pp. 1–111). Cambridge, MA: MIT Press. (Original work published 2000)

Reinhart, T., & Reuland, E. (1993). Reflexivity. *Linguistic Inquiry*, *24*(5), 95–652.

Reinhart, T., & Siloni, T. (2005). The lexicon-syntax parameter: Reflexivization and other arity operations. *Linguistic Inquiry*, *36*, 389–436.

Reis, M. (1976). Reflexivierung in deutschen A.c.I.-konstruktionen, Ein transformations grammatisches Dilemma. *Papiere zur Linguistik*, *9*, 5–82.

Reuland, E. (2001). Primitives of binding. *Linguistic Inquiry*, *32*(3), 439–492.

Reuland, E. (2011). *Anaphora and language design*. Cambridge, MA: MIT Press.

Reuland, E. (2017a). Long distance binding in Germanic languages (revised). In M. Everaert & H. van Riemsdijk (Eds.), *The Wiley Blackwell companion to syntax*. Hoboken, NJ: Wiley.

Reuland, E. (2017b). Why is reflexivity so special? Understanding the world of reflexives. *Studia Linguistica*, *71*(1–2), 12–59.

Reuland, E., & Reinhart, T. (1995). Pronouns, anaphors and case. In H. Haider, S. Olsen, & S. Vikner (Eds.), *Studies in comparative Germanic syntax* (pp. 241–269). Dordrecht, The Netherlands: Kluwer.

Reuland, E., & Sigurjónsdóttir, S. (1997). Long distance "binding" in Icelandic: Syntax or discourse? In H. Bennis, P. Pica, & J. Rooryck (Eds.), *Atomism and binding* (pp. 323–340). Dordrecht, The Netherlands: Foris.

Reuland, E., & Wong, C. H. S., Everaert, M. (2020). How the complexity of Mandarin Zi-Ji simplifies the grammar. *Linguistic Inquiry*, *51*(4), 799–814.

Reuland, E., & Zubkov, P. (2022). Agreeing to bind: The case of Russian *<https://doi.org/10.16995/glossa.5730>*. *Glossa: A Journal of General Linguistics*, *7*(1), 1–32.

Rögnvaldsson, E. (1986). Some comments on reflexivization in Icelandic. In L. Hellan & K. Koch Christensen (Eds.), *Topics in Scandinavian syntax* (pp. 89–102). Dordrecht, The Netherlands: Riedel.

Rolf, B. (1974). A rule for pronominalization and reflexivization in Swedish. *Wiener Linguistische Gazette*, *6*, 40–48.

Rooryck, J., & Vanden Wyngaerd, G. (2011). *Dissolving binding theory*. Oxford, UK: Oxford University Press.

Sæbø, K. J. (2009). Self intensification and focus interpretation. In B. Behrens & C. Fabricius-Hansen (Eds.), *Structuring information in discourse: The explicit/implicit dimension* (pp. 1–21). Oslo Studies in Language 1.

Safir, K. (2004). *The syntax of anaphora*. Oxford, UK: Oxford University Press.

Schadler, D. (2009). The anaphoric system in Swedish in comparison to Dutch and German. In L. Devi Sobha & A. Branco (Eds.), *Proceedings of the 7th discourse anaphora and anaphora resolution colloquium* (pp. 73–81). Berlin, Germany: Springer.

Schladt, M. (2000). The typology and grammaticalization of reflexives. In Z. Frajzyngier & T. Curl (Eds.), *Reflexives: Forms and functions* (pp. 125–153). Amsterdam, The Netherlands: Benjamins.

Sells, P. (1987). Aspects of logophoricity. *Linguistic Inquiry*, *18*, 445–479.

Sigurðsson, H. Á. (1986). *Moods and (long-distance) reflexives in Icelandic* [Working Papers in Scandinavian Syntax 25]. Trondheim, Norway.

Sigurðsson, H. Á. (1990). Long distance reflexives and moods in Icelandic. In J. Maling & A. Zaenen (Eds.), *Modern Icelandic syntax* (pp. 309–346). New York: Academic Press.

Sigurjónsdóttir, S. (1992). *Binding in Icelandic: Evidence from language acquisition* [Doctoral dissertation, University of California, Los Angeles, CA].

Sigurjónsdóttir, S., & Hyams, N. (1992). Reflexivization and logophoricity: Evidence from the acquisition of Icelandic. *Language Acquisition*, *2*, 359–413.

Strahan, T. E. (2001). The distribution of reflexive pronouns in Norwegian. *Australian Journal of Linguistics*, *21*, 159–169.

Strahan, T. E. (2003). *Long-distance reflexives in Norwegian: A quantitative study*. München, Germany: Lincom Europa.

Strahan, T. E. (2009). Faroese long-distance reflexives face off against Icelandic long-distance reflexives. In P. Svenonius, K. Bentzen, & C. Heycock (Eds.), *Nordlyd 36.2: NORMS papers on Faroese* (pp. 114–141). Tromsø, Norway: CASTL.

Thráinsson, H. (1976). Reflexives and subjunctives in Icelandic. In A. Ford, J. Reighard, & R. Singh (Eds.), *Proceedings of the North Eastern Linguistic Society 6* (pp. 225–239). Amherst, MA: Graduate Linguistics Student Association.

Thráinsson, H. (1979). *On complementation in Icelandic*. New York: Garland.

Thráinsson, H. (1990). A semantic reflexive in Icelandic. In J. Maling & A. Zaenen (Eds.), *Modern Icelandic syntax* (pp. 289–307). New York: Academic Press.

Thráinsson, H. (1991). Long distance reflexives and the typology of NPs. In J. Koster & E. Reuland (Eds.), *Long-distance anaphora* (pp. 49–75). Cambridge, UK: Cambridge University Press.

Thráinsson, H. (2007). *The syntax of Icelandic*. Cambridge, UK: Cambridge University Press.

Thráinsson, H., Petersen, H. P., Jacobsen, J. í. L., & Svabo Hansen, Z. (2012). *Faroese: An overview and reference grammar*. Tórshavn, Faroe Islands: Føroya Fróðskaparfelag. (Original work published 2004)

Ureland, S. (1981). The development of Dutch and West Frisian reflexives between 1879 and 1979. In M. Gerritsen (Ed.), *Taalverandering in Nederlandse dialekten* (pp. 250–263). Muiderberg, The Netherlands: Coutinho.

Vat, J. (1980). Zich en Zichzelf. In S. Daalder & M. Gerritsen (Eds.), *Linguistics in the Netherlands 1980* (pp. 127–139). Amsterdam, The Netherlands: North-Holland.

Vennemann, T. (2015). Die germanischen Sprachen und die Reflexivierungstypologie. *Sprachwissenschaft*, *40*(1), 3–44.

Vikner, S. (1984). *Anaphors in Danish as compared to English seen from the point of view of the government-binding theory* [MA dissertation, University of London, London].

Vikner, S. (1985). Parameters of binder and of binding category in Danish. *Working Papers in Scandinavian Syntax*, *23*, 1–61.

Zubkov, P. (2018). *The grammar of binding: A study with reference to Russian* [LOT International Dissertation Series]. Utrecht, The Netherlands: LOT.

Notes

1. For Dutch, see, among others, Barbiers and Bennis (2003, 2004) and, for Norwegian and Swedish, Lundquist (2014a, 2014b, 2014c, 2014d, 2014e).

2. Chomsky (1973, 1976) inspired colleagues working on Germanic languages, most notably Lars Hellan, Marga Reis, and Höskuldur Thráinsson, to address issues that questioned the canonical binding theory (Chomsky, 1981).

3. It is not feasible to do justice to the vast literature on binding. Apart from the literature on Scandinavian we cite, there is influential work such as Faltz (1977), Pica (1987), Cole et al. (1990), Huang and Tang (1991), Pollard and Sag (1992), Hornstein (2000), Safir (2004), and subsequently, Rooryck and Vanden Wyngaerd (2011), which we do not able to discuss here.

4. See Section 7 for a characterization of "logophoricity." Logophoricity comes into play when syntactic mechanisms that govern binding are inactive.

5. As is customary, the notation *x*(y)* indicates that the expression is ungrammatical unless *y* is present; *x(*y)* indicates that the expression is ungrammatical if *y* is present. We have taken over the glossing of the source, but to avoid confusion, we consistently used PRON for "pronoun," SE for "phi-feature deficient reflexive," and SELF for "morpheme equivalent to *self*."

6. With a few exceptions in Rhaeto-Romance.

7. Also nouns of creation, such as the cognates of "letter" or "book," are special, in that a possessor phrase may be interpreted as the author if it binds an anaphor in the complement of the noun and as the owner or recipient if it binds a pronominal. There are some cross-linguistic differences in the strength of this effect that we refrain from discussing.

8. All Germanic languages having a SE-reflexive take this reflexive in the case of so-called intrinsic reflexives (like Dutch *zich schamen* 'be ashamed' *om zich heen kijken* 'look around'); SELF-reflexives are excluded/dispreferred. Note that Dutch and German have *let*-A.c.I. intrinsic reflexives (Coopmans & Everaert, 1988; Reis, 1976), such as *Zij liet het zich smaken* 'She enjoys her soup', *Zij laat zich de teugels ontglippen* 'She lets the bridles slip from her grasp'.

9. In fact, many languages have elements that license but do not enforce reflexivity; see, for instance, the contributions in Dimitriadis et al. (2017).

10. There is extensive literature on the Dutch anaphoric system, with many more details (Broekhuis, 1991; de Vries, 1999; Everaert, 1986, 1991; Rooryck & Vanden Wyngaard, 2011, among others). There is considerable dialectal variation. For instance, many Western varieties of Dutch employ the form *z'n/der eigen* 'his/her own', West Flemish takes the pronominal form, like Frisian (Barbiers & Bennis, 2003, 2004; Ureland, 1981). Postma (2004) offers an interesting historical perspective.

11. Interestingly, while the strong form of the first-person *mij* is allowed (but perhaps not preferred), the strong form of the second-person *jou* is disallowed as a reflexive (see Reuland, 2001, for discussion). The polite form *u* takes either *zich* or *u* as reflexive.

12. Likewise in an indirect object, a SELF-anaphor is required (Everaert, 1986, p. 99):

(i)

Simone gaf zichzelf$_i$/*zich$_i$/*haar$_i$ een boek.
Simone gave herself/her a book

13. But third-person feminine singular *haar*, and to some extent also third-person plural common gender *hun*, is not as bad as one might expect. Especially in the case of intrinsically reflexive verbs such as *zich schamen* 'be ashamed', one can quite regularly hear *zij schaamde haar* on Dutch radio and TV, by speakers who one never hears saying *hij schaamde hem*. See Baauw and Delfitto (1999) and Baauw (2002) for an acquisition perspective on this difference.

14. The reflexive *sich* is not case-sensitive; the pronominal forms are.

15. We acknowledge the help of Sverre Johnsen, Lars Hellan, and Helge Lødrup with the assessment of the Norwegian data. For discussion see, among others, for Norwegian, Hellan (1980, 1983, 1988, 1991) and Hestvik (1991, 1992); for Danish, Bergeton (2004) and Vikner (1984, 1985); for Swedish, Anward (1975) and Rolf (1974).

16. Interestingly, with an arbitrary subject (*man*, *de*) it is possible to replace *seg* by *en* 'one' but not with intrinsically reflexive verbs (Hellan, 1988, p. 110).

17. It should be noted that the use of bare infinitives is more limited in Norwegian than in Dutch or German.

18. As noted in Schadler (2009), with verbs as in (i) *själv* is always obligatory:

(i)

a. Han skrämmer sig själv.
    He frightens SE SELF
    'He frightens himself'
b. Han överraskar sig själv.
    He surprises SE SELF
    'He surprises himself'

19. As Vikner (1985) notes, that there is no plural reflexive possessive is one of the few clear-cut differences between Danish and both Norwegian and Swedish with respect to binding.

20. We acknowledge the help of Sigríður Sigurjónsdóttir, Halldór Sigurðsson, and Höskuldur Thráinsson for assessing the Icelandic data and Hjalmar Petersen for assessing the Faroese data in this section. For discussion see, among others, for Icelandic, Thráinsson (1976, 1991, 2007), Maling (1984, 1986), Anderson (1986), and Sigurðsson (1990) and, for Faroese, Barnes (1986), Thráinsson et al. (2004/2012), and Strahan (2009).

21. Icelandic and Faroese SELF agrees in number and gender with the antecedent, contrary to the other Germanic languages. Note that SELF in Icelandic precedes the SE-reflexive, contrary to the other Germanic languages.

22. Note that *þvo* 'wash' takes a dative rather than an accusative object.

23. Such lexical effects, first noted for Icelandic by Thráinsson, are described by Hyams and Sigurjónsdóttir (1990), Sigurjónsdóttir (1992), and Sigurjónsdóttir and Hyams (1992); for Faroese, see Barnes (1986).

24. Compare Faroese (i) (Barnes, 1986) to (1c iii):

> (i)
>
> Hann_i hoyrdi seg_j svara spurninginum.
> He heard [SE answer the question]

25. Frisian, as described here, is officially known as *Westerlauwersk Frysk* or as *Modern West Frisian*. It is the second official language of the Netherlands and primarily spoken in the province of Fryslan (about 300,000 more or less native speakers). As far as we know, the basic pattern of the anaphoric system in West Flemish is similar to that of Frisian, based on the data collection in the SAND project (syntactic atlas of Dutch dialects). Afrikaans is one of the 11 official languages in the Republic of South Africa with approximately 7 million speakers. It developed from the Dutch dialects spoken by the settlers who colonized the country in the 17th century.

26. In the case of grooming verbs, Afrikaans behaves slightly differently in the sense that the option of dropping the object, like in English, is freely available; however, one finds them with self-forms.

> (i)
>
> Jan skeer elke oggend.
> Jan shaves every morning

27. For some speakers, including one of the authors, the pronominal and the anaphor are in free variation, others have a strong preference for the anaphor. For most who accept a pronominal, the unstressed form *'m/'r* is preferred (Everaert, 1981; Vat, 1980). For both Dutch and German the SE-SELF anaphor in locatives is excluded (Everaert, 1981; Fischer, 2004a; Vat, 1980).

28. In many current German dialects, *sich* is limited to accusative positions or even to just the direct object positions (Keller, 1961). This is also true of Middle High German up to the 15/16th century (Keller, 1978); see also Vennemann (2015). This pattern of variation falls well within the scope perspective sketched in the discussion of Frisian if, in such dialects, all accusatives are structural and all datives are inherent.

29. As Schadler (2009) notes, in Swedish there is some variation. While the standard form is (i) with a SELF-form, there is a more colloquial option with a SE-anaphor, as in (ii):

> (i)
>
> with a SELF-form, there is a more colloquial option with a SE-anaphor, as in (ii):

(ii)

> Han är stolt över sig själv.
> He   is proud of SE SELF
> 'He is proud of himself'

(iii)

> %Han är stolt av sig.
> He   is proud of SE

30. So, in a sense, Dutch locative and directional Ps hold the middle road between German and Mainland Scandinavian, where a "strong" case system and a "weak" case system both yield complementarity but due to a different role in the derivation.

31. Hjalmar Petersen, personal communication, January 19, 2022.

32. We found an occurrence of the pronominal *se* in Afrikaans in an internet search, but we have no details about its properties.

33. There may also be a difference in the relation between *sich* and the verb, for which we refer to Reuland (2011).

34. Topicalization and conjunction test indicate that Dutch *zich* is a clitic.

35. Example (28) is a modified example from an internet search on November 7, 2021, 13.32, preserving plausibility.

36. Bergeton (2004) claims that the complex anaphor *sich selbst* is used in configurations in which *sich* would otherwise be stressed (see also discussion in Sæbø, 2009).

37. And like Dutch *zich*, *sich* can be fronted across its binder as in (i), indicating that at least one of its realizations has clitic-like properties; see also Featherston and Sternefeld (2003, p. 38):

(i)

> Es ist unmöglich, *dass sich jeder Mensch* mit jedem gut versteht.
> (internet search *dass sich jeder* November 11, 2021)

38. A reviewer of Reuland and Reinhart (1995) remarked that stressed *sich* in locative PPs is not always bad. For instance, in (i), it is completely well formed:

> (i)
>
> Hinter/Neben wen hat er das Buch gelegt? Hinter/Neben SICH.
> behind/next to whom has he the book put? behind/next to himself

ˢThis, in fact, supports the parallelism between Dutch *zichzelf* and stressed *sich*, since the Dutch equivalent of (i) allows *zichzelf* but not *zich*.

39. As, for instance, *taan tanne* in Malayalam (Jayaseelan, 1997).

40. Since Frisian and Afrikaans lack a dedicated SE-anaphor the issue of binding domains for SE-anaphors does not arise. The SELF-anaphors are local, as in the other Germanic languages.

41. Apparently, there is variation in the acceptance of the *sich*-variant in (35b), indicated by the %-sign before the subscript.

42. Note that judgments can be influenced by stress patterns, see Note 27.

43. Some speakers marginally allow this reading. It has been pointed out to us that ECM constructions in which the embedded verb is non-agentive constitute exceptions to this locality pattern; see, among others, Reis (1976), Grewendorf (1983, 1989), and Gunkel (2003).

44. See Gunkel (2003) for examples and more discussion.

45. See Everaert (1986) and Reuland (2011) for ways to account for this difference.

46. Although Hellan's original examples show binding across first- and second-person pronouns, binding is equally available across third-person expressions.

47. Note that this is not very surprising given the discussion in, for instance, Reuland et al. (2020).

48. For more examples of long-distance binding in Norwegian, see Faarlund et al. (1997, p. 1161), Strahan (2001), and Lødrup (2008).

49. See also Thráinsson (1979, 1990, 1991), Maling (1984, 1986), Anderson (1986), Rögnvaldsson (1986), Everaert (1986), Sells (1987), Sigurðsson (1990), and Sigurjónsdóttir (1992), among others.

50. Note, that in (47c), there are two DPs whose perspective or point of view are being reported, that is, *Jón* and *Björn*. Hence, *sig* could also take *Björn* as its antecedent.

51. Note that *María* in its source position, indicated by the trace t_i, is still not a local antecedent for *sér*.

52. Charnavel (2020a, p. 286) suggests that *María* in (51) might meet conditions for logophoricity nevertheless, since in the position of its lower copy it is the subject of an active verb. However, no argument is presented for how this would enable *María* to meet standard conditions on logophoricity and qualify as the person whose perspective or point of view is reported in the sentence.

53. This argues against the position that in infinitives and subjunctives alike the non-local step involves logophoricity. The same holds true of the following fact. Charnavel (2020a, p. 277) proposes as a test for her argument that non-local binding is always based on the logophoric mode of interpretation the availability of split antecedents and partial binding. As we will see in Section 6.2 in Norwegian non-locally bound *sin* allows neither partial binding nor split

antecedents; the same holds true of *seg*. In Icelandic, split antecedents are also impossible (Thráinsson, 1991 and personal communication, November 26, 2021) in such cases, as in (ia), for subjunctive complements and, in (ib), for infinitives.

(i)

a. *Jón$_i$ heldur að Haraldur$_j$ hafi sagt að María eigi að þvo sér$_{i+j}$
Jon believes that Harald has said that Maria should wash themselves
b. *Jón$_i$ sagði Haraldi$_j$ að biðja Maríu að vernda sig$_{i+j}$
Jon told Harald to ask Mary to protect them

[5] Hence non-local anaphors in Icelandic clearly fail this test. Note that such examples meet the condition (Charnavel, 2020a, p. 281, note 10) that both potential antecedents are individually possible antecedents, although it is unclear what would justify the significance Charnavel attributes to this condition, given that it obviously does not need to be met by English exempt anaphors, such as *John asked Mary$_j$ to destroy those pictures of themselves$_{i+j}$*.

[5] A further issue is to what extent a non-c-commanding antecedent for *sig* can be licensed at all in the infinitival domain under appropriate discourse conditions (see Reuland & Sigurjónsdóttir, 1997). Gärtner (2015) discusses cases like (ii):

(ii)

[$_{DP}$ Krafa Jóns$_i$ til okkar] er [$_{CP}$ að styðja sig$_i$ við þessar aðstæður].
request Jón's to us is$_{IND}$ to support$_{INF}$ SE with these conditions
'Jón's request from us is to support him in this situation.'

[5] These indicate that the answer is positive, contra what Reuland and Sigurjónsdóttir indicated they would expect. But as Gårtner indicates, such facts can, in fact, be covered by their analysis. See Everaert and Reuland (2023) for further discussion.

54. The examples are from the literature cited unless noted otherwise.

55. The following example is considered grammatical (Hjalmar Petersen, personal communication, January 19, 2022), contrary to what Barnes (1986, p. 96) seems to suggest:

(i)

Hann$_i$ bað hann taka húgvu sina$_i$ og fara.
'He asked him to take cap REFL POSS and go.'

⁵Höskuldur Thráinsson informs us that in an unpublished manuscript, Tania Strahan tested precisely this example and native speakers agreed that given the right context, non-local binding is possible.

56. Strahan (2009) presents a detailed investigation of non-local anaphoric dependencies in Faroese. As she reports, Faroese shows considerable variation in the acceptability of non-local binding. While a dependency between *seg* and a third-person remote antecedent is generally unproblematic if the intervening subjects are all third person, for many speakers, although not for all, the acceptability is substantially reduced when a first- or second-person pronoun intervenes. She also observes noticeable differences between dialects in the strength of this intervention effect. So the examples given in the main text, taken from Barnes and Thráinsson et al., are not fully representative of Faroese in general. While a parallel with the blocking effect in Mandarin might seem attractive, the latter appears to be more categorical (see, for instance, Giblin, 2016 and Huang & Liu, 2001, for different takes on the issue). So, the nature of this intervention effect in Faroese merits further investigation.

57. Thanks to Eric Hoekstra for his help in constructing plausible examples. For one of the authors, (61a) is somewhat questionable, but there is still a clear contrast with (62a). If *onze* 'our' is replaced by *deze* 'this' (68a) becomes fine, but (62a) is still ill formed.

58. An inanimate is not very felicitous as an antecedent of a pronominal, which is (natural) gender-sensitive in referential dependencies in Dutch. In a PP, one might expect that a so-called R-pronoun would help, but the R-pronoun triggers a strong disjointness effect; see Reuland (2011, p. 282) for discussion.

(i)

De bijbel$_i$ bekritiseert onze houding ten opzichte [van 'mzelf$_{??i}$]/[er$_{*i}$van].
The bible criticizes our attitude with respect to himself/thereof

59. Note that there is no general problem with *zich* in a locative PP with an inanimate antecedent:

(i)

De lantaarn scheen goed op het pad naast zich.
The lantern shone well on the path next to itself

60. Note that, although the example may feel somewhat contrived, *zich* in this configuration clearly does not allow split antecedents, see (i):

(i)

Zijn moeder$_m$ zag Alex$_i$ het volk$_k$ zich van zich$_{i/\{*i,m\}}$ af laten keren.
His mother saw Alex the people from SE away let turn

61. In fact, for (65b) the judgment is split; one speaker marginally allows *Alex* anteceding the anaphor, while the other speaker does not.

62. Thanks to Eric Hoekstra for his help with these examples. Note that in (67b) the neuter *itsels* 'itself' is worse than the masculine *himsels* or feminine *harsels*. Note that speakers differ in their preferred gender of *bibel*.

63. Since Norwegian (and the other Scandinavian languages), Icelandic, and Faroese also have reflexive possessives, such examples are included in the discussion in Sections 6.1.2 and 6.1.3.

64. Slightly changing the example gives the same result:

> (i)
>
> a. *Alex* påvirket vår holdning til *seg (*selv)/ham (*selv)*.
>   Alex influenced our attitude towards SE(self)/him(self)
> b. *Denne boken* påvirket vår holdning til *seg (??selv)/den (*selv)*.
>   This book influenced our attitude towards SE(self)/it(self).

65. For both (69a) and (69b), a preference for the pronoun is reported as well.

66. According to Johnsen (2008), the binding possibilities of *sin* may, in fact, be different from the binding possibilities of *seg*. Going into this issue would lead us beyond the scope of this contribution.

67. The form *dennes* would reflect an exaggerated high style. It was also reported that it would be more common to use the "German genitive," as in

> (i)
>
> Denne boka kritiserte vår holdning mot boka sin forfatter.
> This book criticized our attitude towards book his authors

68. As reported *deres fortolking* would be very stilted in Norwegian; the normal way of expression would be with the pronominal *dem*.

69. To allow checking for the option of split antecedents the SELF-form has to be plural:

> (i)
>
> a. Kóngurinn$_i$ bað Alex$_j$ að láta fólkið meta *sig$_{i+j}$/*sjálfa sig$_{i+j}$.
>   the king asked Alex to let the people assess SE/SELF-SE
> b. Kóngurinn$_i$ bað Alex$_j$ að láta fólkið meta þá$_{i+j}$/þá sjálfa$_{i+j}$.
>   the king asked Alex to let the people assess PRON/PRON-SELF

⁵ Even so, a split antecedent reading requires a pronoun, as in (ib), where *þá sjálfa* would be emphatic or contrastive. Split antecedents are equally impossible in cases like (ii), Icelandic, or (iii), Faroese (many thanks to Hjalmar Petersen, personal communication, January 19, 2022, for contributing this fact): The SE-anaphor can have either *John* or *Harald* as an antecedent but not jointly:

(ii)

a. Jón$_i$ heldur að Haraldur$_j$ hafi sagt að María eigi að þvo sér$_{i/j/*i+j}$.
   Jon believes that Harald has said that Maria should wash SE
b. Jón$_i$ sagði Haraldi$_j$ að biðja Maríu að vernda sig$_{i/j/*i+j}$.
   Jon told Harald to ask Mary to protect SE

(iii)

a. Jón$_i$ heldur, at Haraldur$_j$ hevur sagt, at Maria eigur at vaska sær$_{i/j/*i+j}$.
   Jon believes that Harald has said that Maria should wash themselves
b. Jón$_i$ bað Harald$_j$ biðja Mariu verja seg$_{i/j/*i+j}$.
   John told Harald to ask Mary to protect themselves

70. The examples in (78) and (79) show different lexical and morpho-syntactic choices, coming from different native speakers, but crucially, the judgements in (78a) and (79b) are identical. See also (i) from Sigurðsson (1990), cited in Strahan (2009):

(i)

[Þetta vandamál]$_i$ krafðist þess [að við hugsuðum stöðugt um það$_{i/*sig_i}$].
this problem demanded (it) that we thought constantly about it

71. See for more discussion, for German, Kiss (2003, 2012) and Fischer (2015); for Dutch, Everaert (1986), Anagnostopoulou and Everaert (1999), and de Vries (1998).

72. The same applies to (i), where one sees a contrast, even though backward pronominalization is dispreferred in Icelandic:

(i)

Myndin af sér$_{*i}$/sér sjálfum$_{*i}$/honum$_i$ í Newsweek stjórnaði hugsunum Jóns$_i$.
'The picture of himself in Newsweek dominated John's thoughts'

73. As (i) illustrates partial binding of a non-locally bound anaphor was firmly rejected by our consultants, arguing against Charnavel's (2020b) approach to logophoricity:

(i)

Anna$_i$ og Páll$_j$ báðu mig að gera skugga fyrir dóttur *sína$_i$ og dóttur nágrannans.
Anna and Paul asked me to make shade for daughter SE$_{POSS}$ and daughter neighbor's

---

Related Articles

Cyclicity in Syntax

Chinese Reflexives