

Pronominal Anaphora

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1. Introduction

The goal of this chapter is to shed light on the notion of pronominal anaphora and to take a closer look at their syntactic behaviour. After a brief definition of the term itself, we will investigate in which contexts they occur. Of course, one question that arises is whether some general patterns can be observed – how do pronominal anaphora generally behave, and do we find exceptions? Moreover, the issue of crosslinguistic variation has to be addressed, and there are also some universal tendencies that can be identified.

However, before turning to the syntactic structures in which pronominal anaphora occur and the peculiarities that show up in connection with them, the term itself has to be scrutinized more closely, since both parts of it can be understood in different ways. If we abstract away from recent syntactic theory, the term anaphora is generally used for expressions that receive interpretation by something mentioned before in the discourse, the so-called antecedent.¹

Following this definition, an anaphoric expression might be a reflexive, as in (1-a), or a personal pronoun, as in (1-b). In this sense, *herself* and *she* in (1) are anaphoric because they both refer to *Anna* (which is indicated by coindexation); so *Anna* functions in both examples as antecedent for the anaphoric expressions.

- (1) a. Anna₁ recognized *herself*₁ in the picture.
b. Paul invited Anna₁ for a drink, and *she*₁ accepted.

In a stricter sense, the term anaphora refers exclusively to reflexives and reciprocals, whereas personal pronouns are referred to as pronouns, independent of whether there is a syntactic antecedent or not.²

Following this definition, only (1-a) contains an anaphor, while the italic expression in (1-b) is a pronoun. This classification is in particular adopted in literature on binding and reflexivity in generative grammar (cf. in particular Chomsky 1981 and subsequent work, among many others).

¹In literary theory, the term denotes a rhetoric device which involves the repetition of a (group of) word(s) in successive clauses (cf. Cuddon ³1992). Hence, we can conclude that the term generally implies that something mentioned before is resumed in one way or the other.

²In this section, I will use the term syntactic antecedent to indicate that the anaphoric expression and its antecedent are part of the same sentence, which is in particular not necessary if a pronoun indicates anaphoricity (cf. section 2.2); here, we often find an antecedent in the broader context (cf., for example, (i)).

- (i) Paul invited Anna₁ for a drink. She₁ accepted.

In the following sections, where I concentrate on the stricter definition of the term anaphor (cf. (2-b)), I will use the notion antecedent exclusively to refer to antecedents within the same sentence unless indicated otherwise.

- (2) a. *Definition 1:*
 Anaphora = Expressions which receive interpretation by an antecedent.
 b. *Definition 2:*
 Anaphora = Reflexives and reciprocals (= subset of (2-a)).³

Against this background it might sound contradictory to talk about pronominal anaphora if we stick to definition (2-b) and interpret the term pronominal in a strict way as referring to personal pronouns (which contrast with anaphora). However, what is meant instead is that we will focus on non-clitic proforms and ignore anaphoricity expressed by clitics or other devices (cf., for instance, Everaert (no date) as regards different means to express anaphoricity).

In the following, I will adhere to the stricter definition in (2-b) when talking about anaphors, and I will use the term pronoun instead when talking about personal pronouns. In section 2, I will take a closer look at both types of expressions and briefly consider their general binding behaviour. Section 3 focuses on crosslinguistic variation and universal tendencies and offers some means to describe different binding patterns by measuring the distance between anaphor and antecedent. In section 4, long distance binding and its characteristics will be discussed, before we then turn to locally free reflexives in section 5, where we distinguish different occurrences of locally free reflexives and consider different accounts of them. Finally, section 6 offers a brief conclusion.

2. Basic Properties of Pronominal and Anaphoric Binding

There are good reasons why anaphors are generally contrasted with pronouns: They behave completely differently as far as the potential syntactic position of their antecedent is concerned. In this section, I will therefore take a closer look at the relation between anaphors/pronouns and their antecedents before turning to less expected patterns of behaviour of anaphors in the following sections.⁴

³For the time being, this definition is sufficient and follows common linguistic usage; however, when we turn to locally free reflexives (cf. section 5), the two notions (anaphor vs reflexive) will be distinguished along the lines proposed by Kiss (2009).

⁴Note that I will neglect the analysis of reciprocals in this chapter; thus, the notion anaphor will basically refer to reflexives. Note, however, that although reciprocals and reflexives seem to have a very similar distribution (cf. (i) vs (3)), it is not completely identical (cf., for example, (ii) and (iii)) (cf. also Fischer 2004b:18f.).

- (i) a. [Anna and Paul]₁ recognized each other₁ in the picture.
 b. *Each other laugh in the picture.
 c. *Their₁ brothers recognized each other₁ in the picture.
 d. *[Anna and Sally]₁ said that Paul and John recognized each other₁ in the picture.
- (ii) a. It would please [the boys]₁ very much for each other₁ to win.
 b. ??It would please John₁ very much for himself₁ to win.

(cf. Lebeaux 1983:723)

- (iii) *Long distance binding across an infinitival clause in Russian:*
- a. My poprosili ix [nalit' drug drug-u čajku].
 we_{nom} asked them_{acc} to-pour each other_{dat} tea_{acc}

2.1 Anaphors

The sentences in (3) allow us to draw first conclusions about the behaviour of anaphors. Obviously, (3-a) is the only sentence that provides a configuration in which the anaphor is grammatical. Thus the question arises as to what the decisive difference between (3-a) and the remaining examples is.

- (3) a. Anna₁ recognized herself₁ in the picture.
 b. *Herself/*Sheself likes the picture.
 c. *Anna₁'s brother recognized herself₁ in the picture.
 d. *Anna₁ said that Paul recognized herself₁ in the picture.

At first sight, the most striking characteristic of (3-a) is that it contains an antecedent for the anaphor *herself*, namely *Anna*. On this antecedent the anaphor depends for its interpretation, thus it must agree with it with respect to person, number, and gender. If we assume that the presence of this antecedent is obligatory, we can account for the ungrammaticality of sentence (3-b), which does not contain an antecedent for the anaphor.

However, as (3-c) and (3-d) show, this restriction alone does not suffice to account for the distribution of anaphors. As far as (3-c) is concerned, it differs from (3-a) with respect to the syntactic configuration that holds between the antecedent and the anaphor. According to the definition in (4), *Anna* c-commands the anaphor in (3-a) (cf. also (5-a)), whereas in (3-c), the antecedent *Anna* does not c-command *herself*, as (5-b) illustrates.⁵

- (4) *C-command (following Reinhart 1976):*
 X c-commands Y iff the first branching node dominating X dominates Y, X does not dominate Y, and X ≠ Y.
- (5) a. [**TP** [_{DP} Anna₁] recognized herself₁ in the picture]
 b. [**TP** [**DP** [Anna₁]'s brother] recognized herself₁ in the picture]

Based on the observation that c-command plays such a crucial role, the notion of syntactic binding has been introduced and defined as follows.

- (6) *Syntactic binding:*
 X binds Y iff X c-commands Y and X and Y are coindexed.

Thus we can say that there are grounds for the assumption that anaphors must be bound. However, example (3-d) (**Anna₁ said that Paul recognized herself₁ in the picture*) shows that binding as such is not a sufficient restriction on the occurrence of anaphors: In (3-d), *herself* is bound by *Anna*, but still the sentence is ungrammatical. Hence, the following

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- 'We₁ asked them₂ [to pour each other_{+1/2} tea].'
 b. On ne razrešaet mne [proizvodit' opyty nad soboj].
 he_{nom} not permit me_{dat} to-perform experiments_{acc} on self_{inst}
 'He₁ does not allow me₂ [to perform experiments on himself₁/myself₂].'
 (cf. Rappaport 1986:104)

⁵The relevant branching nodes are boldfaced in (5). However, the concrete labelling of the nodes does not play a role.

question remains open: In which respect does (3-d) differ from (3-a)? The most obvious answer is that the distance between the antecedent and the anaphor is much smaller in the latter example. Informally it can thus be concluded that the distribution of anaphors is regulated as follows:

- (7) Anaphors must be bound in a relatively local domain.

Of course, the crucial question is how this domain is properly defined. A first step into this direction was taken by Chomsky (1973). On the basis of examples like (8), he made the following observations: As (8-a) illustrates, binding into a tensed clause is illicit; hence, the antecedent *Anna* in the matrix clause is too far away for the reflexive in the finite embedded clause. Moreover, an intervening subject between anaphor and antecedent (like *Paul* in (8-b)) blocks anaphoric binding as well.

- (8) a. *Anna₁ confirmed [_{CP} that herself₁/sheself₁ was in the picture].
b. *Anna₁ believes [Paul to like herself₁].

As a first approach towards the definition of the syntactic domain in which anaphoric binding has to take place, these two observations have been summarized in the so-called *Tensed-S Condition* and the *Specified Subject Condition*, cf. (9) (cf., for instance, Roberts 1997:127f.). (Note that both conditions are also violated in example (3-d) and thus account for its ungrammaticality.)

- (9) a. *Tensed-S Condition*:
No binding into a tensed clause.
b. *Specified Subject Condition*:
No binding across an intervening subject.

A lot more would have to be said on the precise definition of this domain which restricts anaphoric binding (usually termed binding domain). However, for the time being we will ignore this issue here and just keep in mind the basic observation in (7), namely that we expect anaphors to be locally bound.⁶

2.2 Pronouns

Let us now take a look at the distribution of pronouns and consider the examples in (10), the counterparts of the anaphoric examples in (3).

- (10) a. *Anna₁ recognized her₁ in the picture.
b. She likes the picture.
c. Anna₁'s brother recognized her₁ in the picture.
d. Anna₁ said that Paul recognized her₁ in the picture.

Here, only the first sentence is ungrammatical, in which the pronoun and its antecedent

⁶Following Chomsky 1981 and subsequent work, refined versions of the constraint in (7) have become known as Binding Principle A. For a more detailed explanation and discussion of Chomsky's and other binding theories see Fischer (this volume).

establish a relatively local binding relation. By contrast, the pronoun is licit in (10-b)-(10-d).

As (10-c) and (10-d) show, pronouns can have an antecedent, but this is not a necessary condition (cf. (10-b)). So unlike anaphors, pronouns do not need an antecedent. As far as the role of *c*-command is concerned, the potential lacking of an antecedent in general already suggests that a pronoun need not be *c*-commanded by its antecedent. This is confirmed by (10-c), where the antecedent is embedded inside a larger subject and therefore does not *c*-command the pronoun it is coindexed with. To sum up, there is no binding relation at all in (10-b) and (10-c). In (10-d), *Anna* binds the pronoun, but not as locally as in (10-a).

If this situation is compared with the sentences in (3), it can be concluded that anaphors and pronouns seem to be in complementary distribution – at least as far as the syntactic environment given in (3) and (10) is concerned. Hence, the distribution of pronouns may roughly be described as follows:⁷

(11) Pronouns must not be locally bound.⁸

Hence, we also expect that pronouns can be bound across intervening subjects and tensed clauses, i.e., technically speaking, that pronouns are neither subject to the *Tensed-S Condition* nor to the *Specified Subject Condition*, a prediction which is indeed borne out (cf. (12), which contrasts with the anaphoric examples in (8)).

- (12) a. Anna₁ confirmed [_{CP} that she₁ was in the picture].
b. Anna₁ believes [Paul to like her₁].

3. English and Beyond: Variation and Generalizations

3.1 Crosslinguistic Variation

In the previous sections, exclusively English data have been considered. However, if we take into account other languages as well, a broad range of crosslinguistic variation can be observed. First, it is a well-known fact that English is rather the exception than the rule as far as the morphological inventory of reflexives is concerned. In English, we only find one type of reflexive, namely the morphologically complex SELF variant (like *himself*, *herself*, *themselves* etc.).⁹ In most other languages which use pronominal anaphora in local anaphoric dependencies, two different types of anaphors can be found. Apart from SELF anaphors these languages also exhibit morphologically simple anaphors, the so-called SE anaphor. These two types of anaphors are not only different with respect

⁷Following Chomsky 1981 and subsequent work, refined versions of the constraint in (11) have become known as Binding Principle B.

⁸Considering the examples we have mentioned so far, the relevant domain seems to be the same as the one in (7). However, examples like (16) in section 3.1 (and many more in the following sections) reveal that pronouns and anaphors are not always in complementary distribution.

⁹I follow Reinhart and Reuland's (1991, 1993) notation in referring to the morphologically complex anaphors as SELF anaphors and to the morphologically simple anaphors as SE anaphors (= simplex expressions).

to their morphological make-up, they also behave differently as far as their syntactic distribution is concerned. This is illustrated by the Dutch data in (13)-(15). Although there are constructions in which both types of anaphors are admissible (cf. (13) or (18-b)), there are also contexts, in which only one of the anaphors is licit, like the SELF anaphor in (14) and the SE anaphor in (15).^{10,11}

- (13) Max₁ wast zich₁/zichzelf₁.
 Max washes SE/himself
 ‘Max₁ washes himself₁.’
- (14) Max₁ haat zichzelf₁/*zich₁.
 Max hates himself/SE
 ‘Max₁ hates himself₁.’
- (15) Max₁ keek achter zich₁/*zichzelf₁.
 Max glanced behind SE/himself
 ‘Max₁ glanced behind himself₁.’

However, not only the types of anaphors that are involved might differ from the English scenario; there are also differences across languages as far as the choice of the bound element in the same syntactic context is concerned. For instance, if we compare the English, German, and Dutch examples in (16), it can be observed that English allows the complex anaphor and the pronoun, German must use the SE anaphor, and Dutch can use either the SE anaphor or the pronoun.¹² Hence, the data in (16) do not only serve as an example of the broad range of crosslinguistic variation we find with respect to anaphoric binding; they also show that anaphors and pronouns are not always in complementary distribution – not even in English (cf. (16-a), but also (16-c)).

- (16) a. *English:*
 Max₁ glanced behind himself₁/him₁.
- b. *German:*
 Max₁ blickte hinter sich₁/??sich selbst₁/*ihn₁.
- c. *Dutch:*
 Max₁ keek achter zich₁/*zichzelf₁/hem₁.

Another peculiarity we find in some languages other than English is long distance binding

¹⁰As regards the examples in this section, they are taken from Fischer (2004a,b), which are based on the following sources: The Dutch and English data are from Koster (1984), Reinhart and Reuland (1991, 1993), Pollard and Sag (1992), Reuland and Reinhart (1995), Reuland and Everaert (2001) as well as from Eric Reuland (p.c.) and Erik Jan van der Torre (p.c.). As far as the German data is concerned, cf. also Sternefeld (1985) and Fanselow (1991).

¹¹As to the difference between examples like (13) and (14), it has been argued that additional semantic factors play a role depending on the semantics of the verb. As pointed out, for instance, by Kemmer (1993) and Schäfer (2010), *wash* can be classified as naturally reflexive verb, since a reflexive interpretation is the preferred option; this is not the case with *hate*, which is therefore classified as naturally disjoint verb.

¹²Note that some Dutch native speakers prefer the weak pronoun *m* instead of the strong pronoun *hem* in (16-c). Note moreover that the German anaphors *sich* and *sich selbst* are more interchangeable than Dutch *zich* and *zichzelf*. It has therefore often been argued that German *sich selbst* is not a SELF anaphor like Dutch *zichzelf* but rather an intensified SE anaphor (cf., among others, Tibor Kiss (p.c.) and Wolfgang Sternefeld (p.c.)).

(cf. section 4 for a more detailed discussion). As the Icelandic example in (17) illustrates, the exact degree of the locality restriction on anaphoric binding relations (cf. (7)) can also vary from language to language: While anaphoric binding would be ruled out in this context in English, the Icelandic SE anaphor *sig* in the infinitival complement clause in (17) can be bound by the matrix subject *Jón*. Moreover, it can be observed that pronominal binding is a licit option here as well, so again anaphoric and pronominal binding do not necessarily exclude each other.¹³

- (17) Jón₁ skipaði Pétri að raka ??sjálfan sig₁/sig₁/hann₁ á hverjum degi.
 John ordered Peter to shave_{inf} himself/SE/him on every day
 ‘John₁ ordered Peter to shave him₁ every day.’

3.2 Universal Tendencies

But despite all the differences as regards the binding behaviour of pronouns and anaphors in different languages, we can still identify a general underlying pattern. Thus, it seems to be the case that all languages choose the SELF anaphor in the most local binding scenarios. When the distance between antecedent and anaphor increases, every language reaches a point where it opts for the SE anaphor,¹⁴ and for the least local binding relations, the pronoun is selected. In the transition zones from SELF to SE anaphors as chosen anaphoric forms, it might be the case (depending on the language) that both forms can occur and we get optionality, and the same holds for the transition from SE anaphors to pronouns. The latter can be observed, for instance, in the Dutch example in (16), or the Icelandic example in (17). Optionality between SELF and SE anaphor arises, for instance, in the Dutch and German examples in (18-b) and (18-c), respectively.

- (18) a. *English:*
 Jan₁ heard himself₁/*him₁ sing.
 b. *Dutch:*
 Jan₁ hoorde zichzelf₁/zich₁/*hem₁ zingen.
 c. *German:*
 Jan₁ hörte sich selbst₁/sich₁/*ihn₁ singen.

So languages can vary from each other in two respects. First, they might differ with regard to the exact size of the domains where we can observe a transition from SELF to SE anaphor or SE anaphor to pronoun as chosen form of the bound element. Obviously, Icelandic (and any other language with long distance binding) reaches the point when a pronominal realization must be chosen later than languages without long distance binding.

¹³The Icelandic data in this and the subsequent sections are from Gunnar Hrafn Hrafnbjargarson (p.c.) and Reuland and Everaert (2001). In older literature on Icelandic (cf., e.g., Thráinsson 1979, 1991; Anderson 1986; Everaert 1986), the pronoun is usually ruled out in examples like (17) and the simple anaphor is assumed to be the only admissible bound element. I leave it open as to whether these different judgements are due to generational differences, as suggested by Gunnar Hrafn Hrafnbjargarson (p.c.), or whether this is some general variation among speakers of Icelandic, as Joan Maling (p.c.) proposes.

¹⁴If SE anaphors are available in the given language; otherwise pronominal binding will be chosen instead – this is the case in English, for example.

In languages of the latter type, the distance between antecedent and (SE) anaphor cannot become so big. The second difference concerns optionality. Thus, the transition from one realization form to another (from SELF anaphor to SE anaphor to pronoun, as the domain increases) might be abrupt and not give rise to optionality, or, as mentioned before, a certain size of the domain in which binding takes place might allow two realization forms: SELF and SE anaphor, or SE anaphor and pronoun.

What we do not find, however, are patterns of the following type, namely that anaphoric binding is licit if it takes place in domain D_1 , but illicit if it takes place in domain D_2 , where D_2 is smaller than D_1 . Similarly, if pronominal binding is licit in domain D_1 , it will also be licit in domain D_2 , if D_2 is bigger than D_1 . The fact that we turn from SELF anaphors to SE anaphors and finally to pronouns as the distance between antecedent and bound element increases has also consequences for the transition zones, and we will not find optionality between SELF anaphors and pronouns (if SE anaphors are available in the language under consideration). The general pattern can thus be summarized as follows:

- (19) *General patterns:*
- a. If anaphoric binding is licit in domain D_1 , it is also licit in domain D_2 , if D_2 is smaller than D_1 .
 - b. If pronominal binding is licit in domain D_1 , it is also licit in domain D_2 , if D_2 is bigger than D_1 .
 - c. As the distance between antecedent and bound element increases, the realization form of the bound element changes from SELF anaphor to SE anaphor and then to pronoun.
 - d. Optionality between SELF anaphors and pronouns cannot arise if SE anaphors are also available.
- (20) *Crosslinguistic variation:*
- a. The size of the domains (i.e. the degree of locality) when the realization form changes from SELF to SE anaphor and from SE anaphor to pronoun can vary.
 - b. Whether optionality occurs at all and in which domains also depends on the language under consideration.

3.3 Binding-Sensitive Domains

As far as the domains are concerned, Fischer (2004a,b, 2006) distinguishes six domains of different size to which binding seems to be sensitive.¹⁵ This is motivated by the observation that the choice of the bound element ($= \alpha$), i.e. its realization as SELF anaphor, SE anaphor, or pronoun, depends on the question in which of these domains binding takes place. On the basis of the English, Dutch, and German data below in (26)-(28), we can thus identify already four different domains, which are defined in (21)-(24).

¹⁵The general idea that domains of different size might play a role for binding has also been considered by Manzini and Wexler (1987), Dalrymple (1993), and Büring (2005), among others.

- (21) The θ -domain of α is the smallest XP containing the head that θ -marks α plus its argument positions.
- (22) The *Case domain* of α is the smallest XP containing α and the head that Case-marks α .
- (23) The *subject domain* of α is the smallest XP containing α and a subject distinct from α .¹⁶
- (24) The *root domain* of α is the XP that forms the root of the sentence containing α .

If the domains in (21)-(24) are interpreted as the sets of nodes that constitute the respective domain, we can conclude that the subset relations indicated in (25) hold.

- (25) θ -domain \subseteq Case domain \subseteq subject domain \subseteq root domain

Considering now the examples below, we can observe that the predictions in (19) and (20) are indeed confirmed (the boldfaced marking of the bound elements in (26)-(28) shows this visually). The realization form of α depends on two factors – the domain in which binding takes place (which increases from example (a) to (d)), and the language under consideration, since different parametric settings determine at which point the realization form changes from SELF to SE anaphor and from SE anaphor to pronoun (cf. (20-a)).

Hence, we can observe that English chooses the SELF anaphor if the binding relation is very local, i.e., if it takes place within the θ -domain. This is illustrated in (26-a), because the domain comprising the θ -marking head (= *hates*) and its argument positions also contains the antecedent (which is a coargument of α); hence we have binding inside the θ -domain.¹⁷

In (26-b), the θ -domain of the bound element does not contain the antecedent *Max* (or a trace of it), because *Max* is not θ -marked by the same predicate as α (*heard* vs *sing*). Instead, the smallest domain in which binding takes place in this example is the Case domain: α is Case-marked by the matrix verb *heard*, and on the assumption that the matrix subject *Max* is base-generated in the matrix VP (following the VP-Internal Subject Hypothesis), binding takes place within the Case domain. Here, the SELF anaphor is still the only grammatical choice (cf. (26-b)); however, in (26-c), where the smallest domain which contains antecedent and bound element is the subject domain (since α is θ - and Case-marked inside the PP, in contrast to its antecedent), both the SELF anaphor and the pronoun are licit.

Finally, in (26-d), we only have binding in the root domain; the intervening subject *Mary* restricts the subject domain to the embedded clause, and also θ - and Case marking of α take place inside the embedded clause, whereas the antecedent *Max* is θ - and Case-marked in the matrix clause. In this binding scenario, the anaphor is ruled out and the pronoun is the only licit option.

- (26) *English:*
 a. Max₁ hates **himself**₁/*him₁.

¹⁶Note that this definition is a slight simplification of the original one (cf. Fischer 2004a,b).

¹⁷Following (25), this implies of course that binding also takes place within the Case, subject, and root domain in (26-a); however, the θ -domain is the smallest binding domain in this example.

- b. Max₁ heard **himself**₁/**him*₁ sing.
- c. Max₁ glanced behind **himself**₁/**him**₁.
- d. Max₁ knows that Mary likes **himself*₁/**him**₁.

The sentences in (27) and (28) are the Dutch and German counterparts of (26). Hence, the domains in which binding takes place are the same. What can be seen at first sight is that the prediction from (19-c) is again borne out – as the distance between antecedent and bound element increases, the realization form of α changes from SELF anaphor to SE anaphor and then to pronoun, and in some domains, optionality among adjacent realization forms (SELF/SE anaphor or SE anaphor/pronoun) may arise.

If we consider the Dutch data, it is again the SELF anaphor which is chosen in the most local binding scenario (binding in the θ -domain; cf. (27-a)). If we consider binding in the Case domain, the SELF anaphor or the SE anaphor can be used (cf. (27-b)). In (27-c), where we have binding within the subject domain, the SE anaphor and the pronoun are licit, and in (27-d), finally, when binding takes place within the root domain, it is again the pronoun which must be used.

(27) *Dutch:*

- a. Max₁ haat **zichzelf**₁/**zich*₁/**hem*₁.
Max hates himself/SE/him
'Max₁ hates himself₁.'
- b. Max₁ hoorde **zichzelf**₁/**zich**₁/**hem*₁ zingen.
Max heard himself/SE/him sing
'Max₁ heard himself₁ sing.'
- c. Max₁ keek achter **zichzelf*₁/**zich**₁/**hem**₁.
Max looked after himself/SE/him
'Max₁ glanced behind him₁/himself₁.'
- d. Max₁ weet dat Mary **zichzelf*₁/**zich*₁/**hem**₁ leuk vindt.
Max knows that Mary himself/SE/him nice finds
'Max₁ knows that Mary likes him₁.'

As expected, German also uses anaphors in the local binding scenarios. In (28-a) and (28-b), where binding takes place in the θ - and Case domain, respectively, both anaphoric forms are licit. If the smallest domain in which binding takes place is the subject domain (cf. (28-c)), the SELF anaphor is ruled out; and if binding occurs only in the root domain (as in (28-d)), the bound element has to be realized as pronoun.

(28) *German:*

- a. Max₁ hasst **sich selbst**₁/**sich**₁/**ihn*₁.
Max hates himself/SE/him
'Max₁ hates himself₁.'
- b. Max₁ hört **sich selbst**₁/**sich**₁/**ihn*₁ singen.
Max hears himself/SE/him sing
'Max₁ hears himself₁ sing.'
- c. Max₁ schaut hinter ??**sich selbst**₁/**sich**₁/**ihn*₁.
Max glanced behind himself/SE/him

- ‘Max₁ glanced behind him₁/himself₁.’
- d. Max₁ weiß, dass Maria *sich selbst₁/*sich₁/**ihn**₁ mag.
 Max knows that Mary himself/SE/him likes
 ‘Max₁ knows that Mary likes him₁.’

So what all three languages have in common is that anaphoric binding becomes illicit if the antecedent is outside the subject domain (cf. (26-d)-(28-d)). However, this pattern does not hold universally, as the next section reveals.

4. Long Distance Reflexives

Recall what we have said about reflexives so far: They must be bound in a relatively local domain (cf. (7)). Against this background, there are in particular two environments in which we do not expect to find reflexives. First, (7) explicitly rules out non-local binding relations (whatever locality means in this context; cf. the variation we have encountered in the previous section); and second, it implies that reflexives cannot occur without a(n) (c-commanding) antecedent. In section 4 and 5, however, we will see that occurrences of exactly these types do exist, and we will take a closer look at these (at least at first sight) unexpected scenarios.¹⁸

4.1 Long Distance Reflexives and Crosslinguistic Variation

Let us first turn to the phenomenon of long distance binding (= LD binding), which we have already come across before when talking about crosslinguistic variation in section 3. If we reconsider the Icelandic example from (17), repeated in (29), we can observe that the sentence violates one of the locality constraints we have mentioned in section 2.1. On the standard assumption that there is a covert subject in the embedded clause which is coreferent with the matrix object, (29) violates the *Specified Subject Condition* (cf. (9-b)), because the covert subject intervenes between the bound element and its antecedent.¹⁹

- (29) Jón₁ skipaði Pétri að raka ??sjálfan sig₁/sig₁/hann₁ á hverjum degi.
 John ordered Peter to shave_{inf} himself/SE/him on every day
 ‘John₁ ordered Peter to shave him₁ every day.’

Moreover, the *Tensed-S Condition* can also be violated by LD binding, since the latter can also occur in subjunctive complement clauses, as the Icelandic example in (30) shows.

- (30) Jón₁ segir að Pétur raki ??sjálfan sig₁/sig₁/hann₁ á hverjum degi.
 John says that Peter shave_{sub} himself/SE/him on every day
 ‘John₁ says that Peter shaves him₁ every day.’

¹⁸In this and the following section, I will use the terms anaphor vs reflexive in a more careful way. Although the difference is often neglected in the literature (this is why I followed standard terminology in the previous sections), Kiss (2009) points out that we have to distinguish between the lexical form and its role in specific syntactic contexts. Following Kiss (2009), I will therefore call the forms *reflexives* and use the notions *anaphor/anaphoric* only if used to indicate an anaphoric dependency in a given syntactic context.

¹⁹(29) is an instance of object control; cf. also Stiebels (this volume).

This means that LD binding can be observed with different types of complement clauses, and we can conclude that it generally refers to binding relations which are non-local in the sense that they are not restricted to one clause; instead, the domain in which binding takes place stretches across (at least) two clauses: The bound element is embedded in a complement clause, while its antecedent is part of the matrix or another embedding clause. In terms of the domains defined in the previous section, we are dealing with LD binding if binding takes place outside the subject domain.

Since the option of LD binding is not available in every language, it is obviously subject to crosslinguistic variation. In fact, the system is even more fine-grained than it might seem at first sight, because we can find further differences among those languages which allow LD binding. So it can be observed that LD binding is sensitive to the type of complement clause in which the bound element occurs. In Icelandic we have already seen that anaphoric binding might take place into an infinitival or subjunctive embedded clause (cf. (29) and (30), respectively). But as (31) illustrates, LD binding is ruled out in Icelandic if the anaphor is part of an indicative clause.

- (31) Jón₁ veit að Pétur rakar *sjálfan sig₁/??sig₁/hann₁ á hverjum degi.
 John knows that Peter shaves_{ind} himself/SE/him on every day
 ‘John₁ knows that Peter shaves him₁ every day.’

However, this is not universally the case. Faroese, for instance, is a language in which LD binding can also be observed into indicative complement clauses, as shown in (32).²⁰

- (32) *Faroese:*
 a. Jógvan₁ bað meg raka *sær sjálvum₁/sær₁/honum₁.
 Jógvan asked me shave_{inf} himself_{dat}/SE_{dat}/him_{dat}
 ‘Jógvan₁ asked me to shave him₁.’
 b. Jógvan₁ sigur at eg havi sligið *seg sjálvan₁/seg₁/hann₁.
 Jógvan says that I have_{ind} hit himself_{acc}/SE_{acc}/him_{acc}
 ‘Jógvan₁ says that I hit him₁.’

In general, it can be concluded that LD binding occurs most likely into infinitival complements, and least likely into indicative complements. The underlying pattern can be summarized as follows: If a language can have LD reflexives in subjunctive complements, they are also licit in infinitival complements, and if LD reflexives can occur in indicative complements, they are also licit in subjunctive complements (cf. also Burzio 1998, Fischer 2004a,b, among others). The possibilities which result from this generalization are summarized in (33). As we have seen before, English, Dutch, and German, for instance, are languages of type 1 (cf. section 3). A language which only allows LD reflexives in infinitival complements (cf. type 2) is Russian (cf., for instance, Rappaport 1986 and example (iii) in footnote 4). Icelandic, finally, corresponds to language type 3 (cf. (30)-(31)), and Faroese exemplifies language type 4 (cf. (32)).

- (33) *Crosslinguistic variation with respect to LD binding:*

²⁰In Faroese there is no subjunctive, but both infinitive and indicative complements may intervene between Faroese LD reflexives and their antecedents (cf. Petersen *et al.* 1998).

- a. *Type 1*: LD binding is generally ruled out.
- b. *Type 2*: LD binding is only allowed into infinitival complement clauses.
- c. *Type 3*: LD binding is allowed into infinitival and subjunctive complement clauses.
- d. *Type 4*: LD binding is allowed into infinitival, subjunctive, and indicative complement clauses.

In fact, this pattern follows straightforwardly from the generalization in (19-a) if it is assumed that the type of domain in which binding takes place gets bigger when we replace an infinitival with a subjunctive complement clause or a subjunctive with an indicative complement clause.

This view is not unreasonable if we extend the set of relevant binding domains in the following way: As the crosslinguistic differences with respect to LD binding show, we do not find a uniform scenario if binding takes place outside the subject domain; in fact, three different patterns have been distinguished (cf. (33-b)-(33-d)). In order to describe this scenario adequately in terms of domains, the following two additional domains can be defined.

(34) The *finite domain* of α is the smallest XP that contains α and a finite verb.

(35) The *indicative domain* of α is the smallest XP that contains α and an indicative verb.

Taking into account these definitions, the different options of LD binding can be described as follows (cf. Rappaport 1986, Fischer 2004a,b): If only an infinitival complement intervenes between α and its antecedent, the only finite verb of the sentence occurs in the matrix clause, and the finite domain will therefore also contain the matrix subject, i.e. the antecedent. Hence, binding takes place in the finite domain, the indicative domain (which is in this case identical with the finite domain), and the root domain. If a subjunctive complement intervenes, the finite domain is smaller than in the infinitival case – in this scenario, the complement clause contains a finite verb (the subjunctive), and hence, binding does not take place inside the finite domain. However, the indicative domain must contain the matrix verb, so the indicative domain stretches across the matrix clause and also comprises the antecedent, which means that binding takes place inside the indicative (and root) domain. The last scenario contains an indicative complement clause. Here, the embedded verb is not only finite but also an indicative; therefore the finite domain equals the indicative domain and comprises only the embedded clause. Thus, it does not contain the antecedent, which is part of the matrix clause. The smallest domain in which binding takes place is therefore the root domain.

Obviously, the finite domain can never be bigger than the indicative domain, since an XP that fulfils the definition in (35) automatically contains a finite verb. Hence, the following subset relations hold among the six domains that have been defined.

(36) θ -domain \subseteq Case domain \subseteq subject domain \subseteq finite domain \subseteq indicative domain \subseteq root domain

As further illustration as to how the realization of α changes if the binding domain gets

bigger, consider the following Icelandic examples, which display binding inside the θ -domain, the Case domain, the subject domain, the finite domain, the indicative domain, and finally the root domain, respectively.

(37) *Icelandic:*

- a. Max₁ hatar **sjálfan sig₁/sig₁/*hann₁**.
Max hates himself/SE/him
'Max₁ hates himself₁.'
- b. Max₁ heyrði **sjálfan sig₁/sig₁/*hann₁** syngja.
Max heard himself/SE/him sing
'Max₁ heard himself₁ sing.'
- c. Max₁ leit aftur fyrir **sjálfan sig₁/sig₁/*hann₁**.
Max glanced behind himself/SE/him
'Max₁ glanced behind himself₁/him₁.'
- d. Jón₁ skipaði Pétri að raka ??sjálfan sig₁/**sig₁/hann₁** á hverjum degi.
John ordered Peter to shave_{inf} himself/SE/him on every day
'John₁ ordered Peter to shave him₁ every day.'
- e. Jón₁ segir að Pétur raki ??sjálfan sig₁/**sig₁/hann₁** á hverjum degi.
John says that Peter shave_{sub} himself/SE/him on every day
'John₁ says that Peter shaves him₁ every day.'
- f. Jón₁ veit að Pétur rakar *sjálfan sig₁/??sig₁/**hann₁** á hverjum degi.
John knows that Peter shaves_{ind} himself/SE/him on every day
'John₁ knows that Peter shaves him₁ every day.'

Another generalization which has widely been observed (starting with Pica 1987) is that LD reflexives typically are of the SE type. Considering the generalization in (19-a), this is expected. If the complex anaphor were used in LD binding relations, this would imply that it should also be licit in any binding relation that is more local; hence, the SELF anaphor should be possible in almost all binding scenarios. Moreover, we would not expect SELF anaphors to be exchangeable with pronouns in languages with SE anaphors in the inventory (cf. (19-d)); however, contrary to these hypothetical predictions, pronouns generally are a licit option in LD binding contexts as well.

4.2 Logophoric Aspects

In the previous section, only syntactic aspects of LD binding have been taken into account. However, it has widely been observed that discourse factors also play an important role for LD reflexives. What has often been proposed is that at least in some languages and certain contexts the SE form in apparent LD binding scenarios does not really function as an anaphor but rather as a logophor. This means that it is "restricted to reportive contexts transmitting the words or thought of an individual [...] other than the speaker narrator" (cf. Reuland and Everaert 2001 following Clements 1975); the logophor thus "refers to the person whose point of view is being represented or who serves as the 'subject of consciousness'" (cf. Baker 1995:65).

As to Icelandic, one of the most discussed languages in this respect (cf., for example, Maling 1984, Thráinsson 1991, Reuland and Everaert 2001), it has frequently been suggested that logophoricity plays a central role in LD binding contexts containing a subjunctive complement clause. This assumption is supported by the following example.²¹

- (38) a. Jón₁ sagði Pétri að ég elskaði sig₁.
 John told Peter that I loved_{sub} SE
 ‘John₁ told Peter that I loved him₁.’
 b. *Pétri₁ var sagt að ég elskaði sig₁.
 Peter was told that I loved_{sub} SE
 ‘Peter₁ was told that I loved him₁.’

While *Jón* can function as an adequate discourse antecedent in (39-a), this is not possible for *Pétri* in the passivized counterpart in (39-b), because the latter subject does not qualify as antecedent for a logophor – it is not *Pétri* whose point of view is being represented.

Since a logophor is subject to discourse rather than syntactic requirements, we also expect it not to be restricted by the c-command requirement and the need to have a syntactic antecedent. In fact, we find examples of this type in Icelandic, for instance in (39), where the antecedent is in a non-c-commanding position.²²

- (39) [Skoðun Jóns₁] er að sig₁ vanti hæfileika.
 Opinion John’s is that SE_{acc} lacks_{sub} talent
 ‘John₁’s opinion is that he₁ lacks talent.’

Another test to find out whether reflexives function as anaphora or not involves VP ellipsis. As Cole *et al.* (2001) (among many others) point out, only the sloppy reading is available in this case, whereas both the strict and sloppy reading are possible otherwise.²³ This is illustrated in the following two (local) examples (cf. Cole *et al.* 2001: xvii f.). (40) displays an example from Hindi-Urdu in which only the sloppy reading is available, which suggests that this reflexive really functions as an anaphor.

- (40) Guatam₁ [apnee (aap₁)-koo caalaak] samajhtaa hai, aur vikram₂ bhii Φ.
 Guatam self’s self_{dat} smart consider_{impf} is and Vikram also
 ‘Guatam considers himself smart, and so does Vikram’
 (= V. considers *Vikram* smart/*V. considers *Guatam* smart)

In the Malay example in (41), by contrast, both readings are available, which suggests that the reflexive *dirinya* (a form which also occurs as LD reflexive) is not used as an anaphor here.²⁴

²¹Example (38), (39), and (42) are taken from Reuland and Everaert (2001).

²²Cf. also section 5 as regards instances of free reflexives. Note also that this does not necessarily imply that syntactic constraints do not play a role at all for LD binding into subjunctive clauses – cf. the discussion on Faroese below.

²³Thráinsson (1991) and Reuland and Everaert (2001) also show that in the Icelandic subjunctive case of LD binding both the strict and sloppy reading are available. (Note, however, that the sloppy reading requires a c-commanding antecedent.)

²⁴In fact, Cole *et al.* (2001) argue that it is not a logophor either, since it does not have to fulfil the typical discourse conditions constraining the use of logophors; hence they argue that it is a pronominal expression

- (41) John nampak dirinya di dalam cermin; Frank pun.
 John see self_{3sg} at inside mirror Frank also
 ‘John saw himself/him in the mirror and Frank did too.’
 (= F. saw *Frank* in the mirror/F. saw *John* in the mirror)

However, LD reflexives cannot exclusively be analysed in terms of logophoricity, as in particular those examples involving LD binding into infinitival or indicative clauses show. As Reuland and Everaert (2001) point out, constructions analogous to (38-b) turn out to be grammatical when used with an infinitival, and disregarding the c-command requirement as in (39) does not work in these constructions either; cf. (42-a) and (42-b), respectively.

- (42) a. María₁ var sögð [t₁ hafa látið [mig þvo sér₁]].
 Mary was said have_{inf} made me wash_{inf} SE
 ‘Mary₁ was said to have made me wash her₁.’
 b. *[Skoðun Jóns₁] virðist vera hættuleg fyrir sig₁.
 Opinion John’s seems be_{inf} dangerous for SE
 ‘John₁’s opinion seems to be dangerous for him₁.’

As far as binding into indicative clauses is concerned, the contrast between the non-grammatical Icelandic example in (44) (cf. Gunnar Hrafn Hrafnbjargarson (p.c.)) and the grammatical Faroese example in (43) (cf. Barnes 1986, Anderson 1986) also indicates that here rather syntactic than logophoric conditions are involved (at least additionally): The two examples have exactly the same meaning, and it does not seem reasonable to assume crosslinguistic variation with respect to discourse factors, whereas this is a common assumption for syntactic constraints. So crosslinguistic variation might be a general problem for accounts in terms of logophoricity (cf. also section 5.3).

- (43) Gunnvør visti, at tey hildu lítið um seg.
 Gunnvør knew that they held little of SE
 ‘Gunnvør knew that they had a poor opinion of her.’
 (44) Gunnvör vissi að Þau höfðu lítið álit á henni/*sér.
 Gunnvör knew that they had little opinion on her/SE
 ‘Gunnvör knew that they had a poor opinion of her.’

However, it is worth mentioning that we also find occurrences of LD reflexives in Faroese which do not have a syntactic antecedent "although there is one implied by the preceding discourse" (cf. Petersen *et al.* 1998:245). This suggests that discourse factors also play a role for LD binding into indicative clauses, at least in certain cases, which means that we probably do not get a clear-cut division between syntactically constrained and discourse-constrained instances of LD binding; instead, both types of requirements seem to interact.

This is also suggested by Cole *et al.* (2001) in the case of Chinese, where LD reflexives

which takes the form of the reflexive that we also find in local binding contexts. Following Cole *et al.* (2001), we would therefore get a tripartite distinction among LD reflexives: those functioning as anaphors; those functioning as pronominals (using the form of a local reflexive); and those forms functioning mainly as locally bound anaphors but which can non-locally be used logophorically, depending on the discourse conditions and the syntactic structure.

Cf. also section 5, as far as different accounts of locally free reflexives are concerned.

generally seem to behave like bound anaphors (a simple example of Chinese LD binding is given in (45)).²⁵ Thus, they typically require a c-commanding antecedent, and under VP ellipsis only the sloppy reading is available. However, in "limited discourse contexts", as they put it, we also find examples of *ziji* without syntactic antecedent; cf. (46). So Chinese also supports the assumption that the labour between syntactic and discourse constraints can probably not be separated completely.²⁶

- (45) Zhangsan₁ renwei Lisi₂ zhidao Wangwu₃ xihuan ziji_{1/2/3}.
 Zhangsan think Lisi know Wangwu like SE
 ‘Zhangsan₁ thinks that Lisi₂ knows that Wangwu₃ likes him_{1/2/3}/ himself₃.’
- (46) Zhangsan₁ zhidao neijian shi yihou hen qifen; Lisi₂ shuo neixie hua
 Zhangsan know that_{CL} thing after very angry Lisi say those word
 mingming shi zai he ziji_{1/2} zuodui.
 obviously is being with SE against
 ‘Zhangsan₁ was very angry when he learned that. By saying those words, Lisi₂ was obviously acting against himself₂/him₁.’

4.3 Subject-Object Asymmetries

What has been excluded from the discussion so far is another typical property of LD reflexives – they tend to be subject-oriented. As (47) shows, LD reflexives in Icelandic, for instance, cannot have object antecedents, irrespective of the type of complement clause.

- (47) Ég₁ lofaði Önnu₂ [að kyssa *sjálfa sig₂/*sig₂/hana₂]
 I promised Anna to kiss_{inf} herself/SE/her
 ‘I promised Anna₂ to kiss her₂.’

This subject-object asymmetry with respect to anaphoric binding can also be found if binding is more local; in Norwegian, for example, it can even be observed if binding takes place within the θ -domain (cf. Richards 1997 and Safir 1997).²⁷ Note also that the subject-object asymmetry can affect either type of reflexive, the SE form or the SELF form, as the two examples in (47) and (48) show.

- (48) a. Karl₁ fortalte Jon om seg selv₁.
 Karl told Jon about himself

²⁵Note that LD binding by the matrix subject is blocked by an intermediate first or second person subject (cf. Cole *et al.* 1990, 2001).

- (i) Zhangsan₁ renwei wo₂ zhidao Wangwu₃ xihuan ziji_{*1/*2/3}.
 Zhangsan think I know Wangwu like SE
 ‘Zhangsan thinks that I know that Wangwu₃ likes himself₃.’

²⁶As regards other languages with LD binding which are not sensitive to logophoric constraints, cf. also Everaert (no date:11).

²⁷According to Safir (1997:351), only the intensified pronoun is grammatical in sentences like (48-b). As to the corresponding Danish data, cf. Vikner (1985:10;16); with respect to the observed subject-object asymmetry, Danish patterns exactly like Norwegian.

- ‘Karl₁ told John about himself₁.’
 b. *Karl fortalte Jon₂ om seg selv₂.
 Karl told Jon about himself
 ‘Karl told John₂ about himself₂.’

Moreover, it is possible that a language which does not show a subject-object asymmetry in relatively local binding relations is subject-oriented if binding is less local. This seems to be the case in German.²⁸ In (49-b), where binding takes place within the θ -domain, the object can bind either type of anaphor (unlike the Norwegian object in (48-b)).²⁹ In (50), on the other hand, where binding takes place within the subject domain but not within the θ -domain, a subject-object asymmetry arises.

- (49) a. Peter₁ erzählte uns von sich selbst₁/sich₁/*ihm₁.
 Peter told us_{dat} of himself/SE/him
 ‘Peter₁ told us about himself₁.’
 b. Wir erzählten Peter₂ von sich selbst₂/?sich₂/*ihm₂.
 we told Peter_{dat} of himself/SE/him
 ‘We told Peter₂ about himself₂.’
- (50) a. Peter₁ zeigte mir die Schlange neben ??sich selbst₁/sich₁/ *ihm₁.
 Peter showed me_{dat} [the snake near himself/SE/ him]_{acc}
 ‘Peter₁ showed me the snake near him₁.’
 b. Ich zeigte Peter₂ die Schlange neben *sich selbst₂/??sich₂/ ihm₂.
 I showed Peter_{dat} [the snake near himself/SE/ him]_{acc}
 ‘I showed Peter₂ the snake near him₂.’

Generally, we might draw the following conclusion: If a subject-object asymmetry can be observed in domain D_1 in a given language, it will also surface in any domain bigger than D_1 . What is again subject to crosslinguistic variation is the question of which the smallest domain is in which a subject-object asymmetry arises.

5. Locally Free Reflexives

In section 2.1, we concluded that reflexives must be bound in a (more or less) local domain; but already in section 3 and in particular in section 4 we have come across many counterexamples: We have considered data in which binding takes place across more than one clause (LD binding); we have seen examples with non-c-commanding antecedents; and we have talked about occurrences of reflexives without any syntactic antecedent at all. The languages we have mentioned in this context were in particular Icelandic, Faroese, Russian, Malay, and Chinese – these are all languages with LD reflexives of one type or the

²⁸As regards German double object constructions, I have restricted myself to examples where the bound element is embedded in a PP and does not function as object on its own, because data of the former type are easier to judge, whereas judgements vary considerably with respect to the latter configuration; cf. Featherston and Sternefeld (2003) and Sternefeld and Featherston (2003) for a detailed discussion of data like these.

²⁹The reason why the SELF anaphor sounds slightly better than the SE anaphor in sentences like (49-b) is that an intensifier is desirable for pragmatic reasons, since it is less expected that the object should function as antecedent (cf. also König and Siemund 2000).

other. However, the occurrence of locally free reflexives (LFRs) is by no means restricted to languages with LD binding. In English, for instance, where LD binding is generally ruled out, we also find many examples in which the SELF reflexive is not (locally) bound, contrary to what we would expect.

In this section we will take a closer look at typical constructions in which LFRs arise and possible accounts of them.³⁰

5.1 An Overview of Locally Free Reflexives

As regards the syntactic configurations in which LFRs occur, we can basically distinguish four different scenarios: LFRs with non-local antecedents (cf. (51)), LFRs with non-commanding antecedents (cf. (52)), LFRs with split antecedents (cf. (53)), and LFRs with no syntactic antecedent at all (cf. (54)). Examples of all types are given below.³¹

- (51) a. Max₁ boasted that the queen invited Lucie and himself₁ for a drink.
 b. John₁ knows that there is a picture of himself₁ in the morning paper.
- (52) a. As for himself₁, John₁ said that he would not need to move.
 b. John₁'s campaign requires that pictures of himself₁ be placed all over town.
- (53) a. John₁ asked Mary₂ to send reminders about the meeting to everyone on the distribution list except themselves₁₊₂.
 b. John₁ told Mary₂ that pictures of themselves₁₊₂ were on sale.
- (54) a. There were three students in the room apart from himself.
 b. Mary₁ was extremely upset. That picture of herself₁ on the front page of the Times would circulate all over the world.

Apart from the different syntactic structures considered above, we can moreover identify certain constructions in which LFRs are likely to occur. As the (b)-examples in (51)-(54) illustrate, picture noun phrases are a case in point,³² and as the examples show, picture NPs with LFRs can be found in all syntactic contexts mentioned above. Moreover, it has often been observed that these picture NPs containing LFRs frequently occur in psych verb constructions; cf. (55).

- (55) a. The picture of himself₁ in the museum bothered John₁.
 b. The picture of himself₁ in *Newsweek* made John's day₁.

We will briefly come back to these two constructions in the following two sections.³³

³⁰As noted before, the basic observation concerning LFRs is that they violate the standard assumption on anaphora, namely that they must be locally bound. This is why Pollard and Sag (1992, 1994) coined the term "exempt anaphora" for locally free reflexives, since they seem to be exempt from Principle A of the standard binding theory. However, I will stick to the more neutral term of locally free reflexives (LFRs) in this section (cf. also footnote 18).

³¹The data are taken from Pollard and Sag (1992) (partly following Lebeaux 1984), Fischer (2004b) (partly following Reinhart and Reuland 1993), and Kiss (2001).

³²Picture noun phrases (picture NPs) are "NPs headed by a "representational" noun, such as *picture*, *photograph*, *story*, *opinion*, and so on" (cf. Runner *et al.* 2006:195).

³³For a more detailed discussion of reflexives in psych verbs, cf., for instance, Kiss (2009).

5.2 Different Accounts of Locally Free Reflexives

Considering the different accounts that have been proposed of LFRs, basically three main lines of thought can be distinguished: analyses in terms of logophoricity, in terms of intensification, and structural accounts.

The former two of them have in common that they assume that LFRs, in contrast to bound anaphora, cannot be analysed (purely) structurally but depend on pragmatic or discourse factors in one way or the other.

The logophoricity approach is presumably most widely spread. This approach has already been mentioned in section 4.2 in connection with LD reflexives. In the following, a more detailed classification will be presented as to which discourse factors can license the use of logophors (cf. Kuno 1987, Runner *et al.* 2002, 2006).³⁴

There are four relevant factors that can be identified; they comprise point of view (cf. (56)), awareness (cf. (57)), focus (cf. (58)), and indirect agenthood (cf. (59)). In (56), the difference between the acceptable and the unacceptable version relates to the question of whose point of view is being represented. If the free reflexive refers to this person, the construction is grammatical (cf. (56-a)), otherwise it is not (cf. (56-b)). A similar contrast in grammaticality arises in (57), where it is crucial that the discourse antecedent of the reflexive knows about the entity which formally contains the reflexive. As (58) shows, it might also play a role which arguments are focused; and as (59) illustrates, it can moreover make a difference whether the discourse antecedent (which does not bind the reflexive in this example) is an Agent or not.

- (56) a. John₁ was going to get even with Mary. That picture of himself₁ in the paper would really annoy her, as would the other stunts he had planned.
b. *Mary was quite taken aback by the publicity John₁ was receiving. That picture of himself₁ in the paper had really annoyed her, and there was not much she could do about it.
- (57) a. John₁ knows that there is a picture of himself₁ in the morning paper. (= (51-b))
b. *John₁ still doesn't know that there is a picture of himself₁ in the morning paper.
- (58) a. John₁ didn't tell MARY that there was a picture of himself₁ in the post office; he told SAM.
b. *JOHN₁ didn't tell Mary that there was a picture of himself₁ in the post office; SAM did.
- (59) a. I hate the story about himself₁ that John₁ always tells.
b. *I hate the story about himself₁ that John₁ likes to hear.

As, for instance, Baker (1995) and König and Siemund (2000) argue, another way of interpreting the occurrences of LFRs is to assume that these locally free SELF forms in English are no reflexives at all but should rather be analysed as intensified pronouns, which

³⁴The data are taken from Runner *et al.* (2002, 2006), who cite Kuno (1987) and Pollard and Sag (1992, 1994).

are “identical in form, though not in distribution” (cf. König and Siemund 2000:41). This point of view is supported by data which lack the typical discourse factors that usually license logophoricity (cf. above). In fact, LFRs of this type are also mentioned by Cole *et al.* (2001), who point out that the Malay LD reflexive *dirinya* “does not require any special perspective or self-awareness [...]. Rather, it has the same discourse properties as a personal pronoun.” (p.xx). Baker (1995) presents in particular literary examples as, for instance, (60), in which the subject of consciousness corresponds to the outside narrator.

- (60) Sir William Lucas₁, and his daughter Maria, a good humoured girl, but as empty-headed as himself₁, had nothing to say that could be worth hearing, and were listened to with about as much delight as the rattle of the chaise. (citing Jane Austen: *Pride and Prejudice*)

Notwithstanding the fact that non-logophoric occurrences of LFR might well exist (cf. also Cole *et al.* 2001), the previous example might not suffice to show this because literary examples may reflect a poetic language which can differ also in grammatical aspects from the standard language; cf. also Pollard and Sag (1992), who point out that “grammatical constraints can sometimes be relaxed by writers who exercise certain license with their language”.³⁵

However, the assumption that some instances of *himself* should rather be analysed as intensified pronoun might also be supported by the fact that in a language like German, where intensified and reflexive pronouns differ in form, only the (intensified) pronoun is grammatical in many of these examples; cf., for instance, (61)-(63):³⁶ In the German examples below, reflexive forms are generally excluded, and only the pronoun or the intensified version (= the form pronoun-SELF) is licit.

- (61) a. There were three students in the room apart from himself.
 b. Außer ihm selbst/ihm/*sich/*sich selbst waren drei Studenten im Raum.
- (62) a. Max₁ boasted that the queen invited Lucie and himself₁ for a drink.
 b. Max₁ prahlte damit, dass die Königin Lucie und ihn selbst₁/ihn₁/*sich₁/*sich selbst₁ auf einen Drink eingeladen hätte.
- (63) a. As for himself₁, John₁ said that he would not need to move.
 b. Was ihn selbst₁/ihn₁/*sich₁/*sich selbst₁ angehe, so würde er nicht umziehen müssen, sagte John₁.

Following the intensification approach, data as in (61)-(63) do therefore not contradict standard assumptions on the behaviour of reflexives, because – as the German counterparts suggest – the English SELF forms here are in fact pronominal expressions; this means that they are not expected to be locally bound.³⁷

Finally, as regards the structural approaches to LFRs, they attempt to show that these

³⁵Apart from this, the English language might have undergone further changes since the publication of the novel in 1813. So the question might arise as to whether LFRs still behave the same nowadays.

³⁶Cf. also Kiss (2009) as to the observation that German generally lacks exempt reflexives.

³⁷Keep in mind, however, that the intensification approach also assumes that discourse factors determine the occurrence of LFRs. In Baker’s (1995) analysis, intensification is regulated by the so-called *Contrastiveness Condition* and the *Condition of Relative Discourse Prominence* (cf. Baker 1995:77;80).

examples are not exempt from the standard way of dealing with reflexives; hence, they try to subsume them under the standard restrictions on anaphora. The first attempts along this line have been proposed by Chomsky (1981, 1986). I will not present any details of these accounts, but just sketch the main line of reasoning. The general strategy looks as follows: The examples are associated with a syntactic structure which meets the syntactic requirements for anaphora at least at some point in the derivation.

The first kind of construction which had been considered was of type (64-a) (repeated from (51-b)/(57-a)). The proposed analysis is sketched in (64-b), in which a local antecedent for the reflexive has been inserted – the phonetically silent pronoun PRO, functioning here as a possessive pronoun.

- (64) a. John₁ knows that there is a picture of himself₁ in the morning paper.
 b. John₁ knows that there is [PRO₁'s picture of himself₁ in the morning paper].

Instead of inserting an adequate syntactic antecedent, an alternative way to rescue standard binding assumptions in other examples has been reconstruction. Considering examples like (65-a) (repeated from (55-a)), it has been proposed (following the unaccusativity analysis of psych verbs suggested by Belletti and Rizzi 1988) that the reflexive is locally bound in its base position. The local binding requirement can thus be met on the assumption that it must be fulfilled only at some point in the derivation (for instance, before movement takes place) or by assuming reconstruction at the appropriate level. However, example (65-b) (repeated from (55-b)) shows how vulnerable the whole enterprise is: By changing the position of *John* only slightly with the effect that it no longer c-commands the base position of the reflexive, the analysis sketched before no longer works, although the sentence remains grammatical (leaving aside the fact that there are also counterarguments against the unaccusativity hypothesis as such, which was crucial for this analysis of (65-a)).

- (65) a. The picture of himself₁ in the museum bothered John₁.
 b. The picture of himself₁ in *Newsweek* made John's day₁.

So it can be concluded that – considering the vast variety of exempt examples we have already come across – the structural approach is definitely the trickiest one. Among the problems such an approach encounters are, for instance, the question of how to deal with split antecedents (cf. (53)), examples in which the antecedent does not c-command the reflexive at any point in the derivation (as in (65-b)), or the analysis of free reflexives without picture NPs or psych verb constructions; notwithstanding theory-internal problems like the interpretation or positioning of the inserted PRO (cf. also Pollard and Sag 1992 and Runner *et al.* 2006 for some critical remarks on purely structural accounts along these lines).

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- (i) *Contrastiveness Condition:*
 Intensive NPs are appropriate only in contexts in which emphasis or contrast is desired.
- (ii) *Condition of Relative Discourse Prominence:*
 Intensive NPs can only be used to mark a character in a sentence or discourse who is relatively more prominent or central than other characters.

5.3 Picture NPs Revisited

Coming back to the issue of picture NPs, it has often been observed that an overt possessor triggers a blocking effect of the following type: A reflexive inside the picture NP which is not coindexed with the possessor renders the construction ungrammatical; if there is no possessor NP in the picture NP's specifier, a reflexive form is licit. This is what we expect in examples like (66) (cf. Büring 2005) under standard assumptions on anaphoric binding. In (66-a), the anaphor is locally bound, in (66-b), the intervening NP *Mary* blocks local binding (cf. also the *Specified Subject Condition*).

- (66) a. John₁ saw a picture of himself₁/*him₁.
b. John₁ saw Mary's picture of ??himself₁/him₁.

However, as discussed before (cf. section 5.1), we often find locally free reflexives inside picture NPs, and on the assumption that LFRs are not restricted by structural but rather by pragmatic or discourse factors (cf. section 5.2), it is unexpected that a possessor inside the picture NP should make a difference and rule the reflexive out. But this exactly seems to be the case, as the contrast between (67-a) and (67-b) illustrates (cf. Kiss 2009:13, citing Reinhart and Reuland 1993 and Büring 2005).

- (67) a. The picture of himself₁ that John₁ saw in the post office was ugly.
b. *Your picture of himself₁ that John₁ saw in the post office was ugly.

This observation led linguists pursuing the logophoric approach to LFRs (cf., for example, Pollard and Sag 1992 and Reinhart and Reuland 1993) to propose the following distinction: Reflexives in picture NPs without possessor are analysed as logophors, whereas reflexives in picture NPs with a possessor are considered to be anaphors, which are restricted by structural conditions.³⁸

However, the status of picture NPs with possessors is not as clear as the examples in (66) and (67) might suggest. As experiments described by Keller and Asudeh (2001) and Runner *et al.* (2002, 2006) have shown, speakers accept reflexives in picture NPs with possessor more readily than expected. Hence, a reflexive inside picture NPs of this type need not necessarily take the possessor as antecedent, but can also refer to the matrix subject; cf. (68).³⁹ As a result, Runner *et al.* (2002, 2006) propose that the reflexive in picture NPs might generally have to be analysed as a logophor.⁴⁰

³⁸This distinction follows as a consequence from their syntactic constraint on anaphors. Pollard and Sag (1992:266), for instance, put it this way:

- (i) An anaphor must be coindexed with a less oblique coargument, if there is one.

In cases like (67-b), the possessor qualifies as such a "less oblique coargument" and thereby turns the reflexive into an anaphor requiring local binding (by the possessor).

³⁹Keller and Asudeh (2001) (using the magnitude estimation technique) point out that native speakers find the reflexive and the pronominal form equally acceptable in sentences like (68-a). Runner *et al.* (2002, 2006) also conclude on the basis of their eye-tracking experiment that reflexives and pronominals are not in complementary distribution in these examples; however, they observe a preference for interpreting the possessor as antecedent in sentences like (68-b).

⁴⁰Otherwise, they argue, it might also be problematic to account for contrasts like the one in (i) (cf,

- (68) a. Hanna₁ found Peter's picture of her₁/herself₁.
 b. Have Joe₁ touch Harry₂'s picture of himself_{1/2}.

Apart from the unclear role of possessors in picture NPs, a second type of intervention effect has been described. Hence, it can be observed that in the case of two potential c-commanding antecedents, only the lower one can license a reflexive inside a picture NP; cf. (69). This is another reason why people have assumed that syntactic factors might play a role in these constructions, after all.⁴¹

- (69) John₁ remembered that Bill₂ saw a picture of himself_{*1/2} in the post office.

Another remarkable observation concerns the fact that the situation changes if the picture NP is moved to a position in between the two potential antecedents. If this happens, both NPs can function as antecedent for the reflexive inside the picture NP, as (70) illustrates (cf., for instance, Barss 1986 and Epstein *et al.* 1998). So if moving the picture NP makes a difference, the assumption is again suggested that syntactic factors cannot be completely ignored.

- (70) John₁ wondered [which picture of himself_{1,2}]₃ Bill₂ saw t₃.

Another aspect which should not be neglected in this discussion concerns once more crosslinguistic variation. Since many analyses of LFRs focus on English in the first place, it is not immediately clear how much variation we encounter in these constructions. However, as mentioned already in section 5.2, German patterns slightly differently from English, which is illustrated in (71) and (72) (cf. Fischer 2004b).

- (71) a. I wonder which pictures of her₁/herself₁ Mary₁ has found.
 b. Ich frage mich, welche Bilder von *ihr₁/sich₁/sich selbst₁ Maria₁ gefunden hat.

Runner *et al.* 2006:199).

- (i) a. *John₁ said that Bill likes himself₁.
 b. ?John₁ liked Bill's photograph of himself₁.

But although the subject *Bill* intervenes in both examples, note that there is also a crucial structural difference between the two examples: The domain in which binding takes place is much smaller in (i-b) than in (i-a); in (i-a) the smallest domain in which the binding relation holds is the root domain, whereas in (i-b) it is the finite domain.

⁴¹As Pollard and Sag (1992:272) point out, the acceptability of the reflexive in (69) increases if the intervening subject is inanimate, a quantifier, or an expletive; cf. (i).

- (i) a. ?Bill₁ remembered that *The Times* had printed a picture of himself₁ in the Sunday edition.
 b. Bill₁ thought that *nothing* could make a picture of himself₁ in the Times acceptable to Sandy.
 c. Bill₁ suspected that *there* would soon be a picture of himself₁ on the post office wall.

However, in the examples that are mentioned, no intervenor bears the same ϕ -features as the matrix subject (in contrast to the situation in (69)), and the question might arise as to whether (69) generally improves if the intervenor does not qualify as potential antecedent. If this is were true, the examples in (i) are not necessarily counterexamples to a syntactic approach.

- (72) a. Mary₁ wonders which pictures of her₁/herself₁ I have found.
 b. Maria₁ fragt sich, welche Bilder von ihr₁/*sich₁/*sich selbst₁ ich gefunden habe.

In German, we find the following scenario: If the embedded subject functions as antecedent, a SELF or SE form must be used in the picture NP (cf. (71-b)), and if the antecedent corresponds to the matrix subject, it cannot be a reflexive but must be a pronominal (cf. (72-b)). This pattern is what we expect if we assume a standard syntactic analysis, but it is, in fact, also compatible with the accounts in terms of logophoricity or intensification. This is the case because (as already mentioned in section 5.2) (i) there are no logophoric reflexives in German (cf. Kiss 2001, 2009) – hence the use of a logophoric reflexive is excluded in (72-b) – and (ii) German has different forms for intensified pronominals and SELF anaphors – so the ambiguity we find in English (where the SELF form in (72-a) can be analysed as an intensified pronoun though it looks like a reflexive) does not arise in German.

6. Conclusion

In this chapter we have seen that pronominal anaphora (in the broad sense of the definition) occur in a wide range of different syntactic environments. Starting with the best-known variants, locally bound anaphora and personal pronouns in English, we then turned to other languages, where a lot of crosslinguistic variation can be observed with respect to the chosen realization form of bound elements in a given context. On the other hand, however, there are also universal patterns that can clearly be identified.

In connection with crosslinguistic variation, the manifestation and patterning of long-distance reflexives then had to be considered, and it became clear that the occurrence of reflexive forms does not always imply that we are dealing with a binding relation.⁴² Consequently, it is crucial to distinguish between the two notions anaphor and reflexive, even more since the former can be used in different ways independently, as discussed in the introduction.

In any case, both the discussion of LD reflexives and of locally free reflexives have shown that the distribution of reflexives cannot always be accounted for purely structurally; in many examples, discourse and pragmatic factors also play a role. However, we have also seen that it does not seem to be a clear-cut distinction, which means that those accounts are probably on the right track that allow for an interaction of both types of factors.

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⁴²Of course, this restriction also holds the other way round: If we have an anaphoric dependency, it need not necessarily be expressed by pronominal anaphora. As regards languages choosing different strategies, cf., for instance, Everaert (no date) and references cited there.

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