Syntax

On doctors, patients and mirrors. Binding by object, and complex reflexives in German

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Abstract

The syntax of object-related anaphora in German has been subject to a controversy that included fata, the relevance of empirical evidence and the relevance of systematic empirical research for syntactic theory. In this paper, the relevant data and results are recapitualted. I chow that some results from an experimental study by Featherston & Sternefeld (2003) are confounded by problem first observed by Jackendoff (1992). Once this problem has been taken into account, it turns out that an observation about object related binding of reciprocals with the verb *vorstellen* ('to introduce '), thus far treated as exceptional, is the best kind of evidence to answer the question whether object-related anaphors obey the obliqueness hierarchy of case forms. to fully understand the patterns of German reflexivization, it is necessary to take into account patterns of complex reflexives formed with intensifiers like *selbst*. It is claimed that the intensifiers serve different purposes in different contexts. In the case of complex reflexives bound by dative objects, their interpretation is governed by pragmatic principles.

1 Introduction

Our focus of interest in syntactic theory are the general principles that underly grammar. Much of our work consists in comparing and evaluating different analyses of the same sample of facts. And we are certainly more concerned about the criteria of such evaluations than about the principles that guide us in gathering data. The linguistic facts we are dealing with in our analyses are usually uncontroversial. At least, we mostly believe so.

Nevertheless, the empirical reality of language figures prominently in syntactic work. *Example sentences* play a central role in every syntax paper. They do not stand just for themselves, usually, but illustrate *types* of sentences. They serve to exemplify the effects of the more general principles an author argues

for. Most importantly, an example sentence chosen by an author is doing so only to the extent that it is an illustration of *only* the effects under study. But because the number and types of possible confounding factors is unforeseeable, all we actually can do is try our best when we make our choice for an example sentence. It can always happen that new insights prove that choice to be suboptimal. Furthermore, such evidence against the representativity of an example can easily be confused with evidence against the theory the example serves to illustrate.

The examples that have figured prominently in the discussion of object-related reflexives in German in the past 30 years are an interesting case in point. I will briefly introduce the relevant data and arguments in section 2. In section 3, I will present a critical review of this debate, point to some well-known confounding factors that seem to have been overlooked and make a different proposal. Section 4 will present and discuss some less well-known and still underresearched phenomena of complex reflexivization in German. In order to put the pieces of my analysis together, I will finally present a brief description of the German reflexivization strategies from a diachronic perspective and sketch an optimality theoretic analysis of the observed constraint interaction.

2   Binding by object in German

The German reflexive pronoun *sich* can realize an accusative or dative object that is coreferential with a co-argument. The prototypical case is binding by subject as in (1):

(1)   a. Maria$_M$ kämmt sich$_M$
               M.   combs herself-ACC
               "Maria is combing herself."
            b. Peter$_P$ bleibt   sich$_P$ treu
               P.   remains himself-DAT faithful
               "Peter remains faithful to himself."

Unlike personal pronouns, *sich* is not inflected, neither for case, nor for number. It's occurrence is restricted to 3rd person, singular or plural, in accusative or dative case – it lacks both a nominative and a genitive version. It is also morphologically simple. It is possible to put contrastive stress on *sich*, hence, it is not yet reduced to a clitic-like prosodic status. But apart from that, *sich* displays the essential properties of anaphors of the SE type in Burzio's (1998) interpretation of the terminology introduced by Reinhart & Reuland (1993), contrasting with morphologically complex anaphors of the SELF type like English 'him-/her-/itself'.[1]

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[1]Burzio defined SE and SELF anaphors as two distinct morphological classes of simple and complex reflexive pronouns, whereas Reinhart and Reuland make a functional distinction: only

It is a standard assumption that the range of possible binding relations is regulated by a hierarchy of grammatical functions which for German has been proposed initially by Grewendorf (1988:60):

(2)   Grammatical function hierarchy:
        SUBJ ⟨DIR. OBJ ⟨IND. OBJ ⟨INSTR. ⟨ADV ⟨GEN

The grammatical function of the antecedent must be to the left of the grammatical function of the reflexive in this scale. I prefer another version of this hierarchy, the obliqueness hierarchy of case forms. It leads to pretty much the same results as (2), at least for our concerns here:

(3)   Obliqueness hierarchy:
        nominative < accusative < dative < Genitive, PP

Accordingly, Grewendorf (1988:58) presented the following examples and judgments:

(4)   a. Ich überließ die Schwester$_S$ sich$_S$ / *ihr$_S$
           I   left   the sister-ACC   herself-DAT / *her-DAT
           "I left the sister to herself."
        b. Die Leute schlugen dem Fragenden$_F$ ihn$_F$ / *sich$_F$
           the people proposed the asking-person-DAT him-ACC/ *himself-acc
           als Verhandlungsführer vor.
           as negotiator   PRT

Grewendorf concluded that a dative object bound by an accusative object must be realized as a reflexive pronoun, whereas an accusative object bound by a dative object must be realized as a reflexive pronoun. He then continues with the following remark about this generalization:

 "Die Generalisierung […] lässt sich für jemanden, der ein Gespür für subtile, aber nichtsdestoweniger eindeutige Grammatikalitätsunterschiede hat, an der folgenden Gegenüberstellung noch einmal illustrieren:"[2] (Grewendorf 1988:58)

This passage is then followed by a pair of example sentences that since figures prominently in the debate about binding by object antecedents in German:

SELF anaphors have a reflexivizing function. German *sich* is morphologically a SE anaphor, but functionally a SELF anaphor.

[2]"For someone with a feeling for subtle, but nevertheless clear differences in gramamticality, the generalization can also be illustrated with the following contrast:"

(5)   a. Der Arzt   zeigte   den Patienten_P   sich_P   / *ihm_P   im
           the doctor showed the patient-ACC himself-DAT/ him-DAT in the
           Spiegel.
           mirror
        b. Der Arzt   zeigte   dem Patienten_P *sich_P   / ihn_P   im
           the doctor showed the   patient-DAT himself-ACC / him-ACC in the
           Spiegel.
           mirror

Grewendorf's hedging in the passage quoted above indicates his anticipation of possible disagreement on the judgments in (5). Featherston and Sternefeld (2003) cited the handout of a presentation by Lechner (2000) where the following judgments are given:

(6)   a. *weil   ich die Maria_M sich_M im Spiegel gezeigt habe
            because I   the M.-ACC herself-DAT in the mirror shown have
            "Because I showed Maria to herself in the mirror."
        b. *weil   ich die Maria_M ihr_M   im   Spiegel gezeigt habe.
           because I   the M.-ACC her-DAT in the mirror   shown have
           "Because I showed Maria to her in the mirror."

Reis (1976) already reported that these structures can be improved by adding the intensifier *selbst* ('-self'):

(7)   a. Hans überlässt die Schwester_S sich_S   (selbst)
           H.   leaves   the sister-ACC herself-DAT (self)
          "Hans leaves the sister to herself."
        b. Der Psychoanalytiker hat den Patienten_M   wieder an sich_M   (selbst)
           the psychoanalyst   has the patient-ACC again   to himself (self)
           gewöhnt
           accomodated
           "The psychoanalyst accomodated the patient to himself again."

Featherston & Sternefeld (2003) argued that binding of an accusative reflexive by a personal pronoun with dative case is more acceptable than by a full NP in the dative.

(8)   a. ?Die Friseurin zeigte ihm_I   sich_I   im   Spiegel.
            the   barber   showed him-DAT himself-ACC in the mirror
        b. ??Die Friseurin zeigte   dem Kunden_K sich_K   im   Spiegel.
             the barber   showed the client-DAT himself-ACC in the mirror

Featherston & Sternefeld (2003) carried out an acceptability rating experiment to test the various factual claims on that can be found in the literature. Because

they wanted to test all relevant factors, the test sample contained 16 test conditions. They result from all possible combinations based on four binary factors. These factors are:

category of bound element: reflexive pronoun or personal pronoun
case: antecedent=accusative or dative; bound element = dative or accusative
selbst: bound element with or without the intensifier *selbst*
antecedent: pronoun or full NP

The test material was constructed using four ditransitive verbs: *zeigen* ('to show'), *vorspielen* ('act/pretend'), *zuweisen* ('assign'), *empfehlen* ('recommend'). The statistical analysis of the results, according to Featherston & Sternefeld, provided support for the following four claims:

(9)   a. dative antecedents (and accusative anaphors) are better than accusative antecedents (and dative anaphors);
        b. anaphors with the intensifier *selbst* are better than those without;
        c. reflexives are better anaphors than pronouns;
        d. pronouns are better antecedents than full NPs

(9a) is surprising, as it contradicts the widely assumed relevance of the obliqueness hierarchy of case forms (or grammatical function hierarchy) for binding (cf. (2) and (3)). Featherston (2007) points to this result as an example where in his view consequent empirical research falsified a standard assumption in syntactic theory. Grewendorf (2007) rejected this conclusion. (9a) also contradicts perhaps one of the rare empirical findings in this debate which is really uncontroversial among scholars:

(10)   a. Ich habe die Gäste$_G$ einander$_G$ vorgestellt
           I   have the guests-ACC each other-DAT introduced
           "I introduced the guests to each other."
        b. *Ich habe den Gästen$_G$ einander$_G$ vorgestellt.
            I   have the guests-DAT each other-ACC introduced
            "I introduced the guests each other."

Sternefeld & Featherston (2003) deal with this apparent contradiction to their finding in (9a), arguing that the judgments in (10) are due to a processing effect whereby informants prefer to interpret *einander* to have dative case. Be this as it may, this does not explain away the effect in (10). This can be seen, when we look at a different way of formulating a reciprocal, namely by combining the reflexive *sich* with the adverbial *gegenseitig* ('each other'). According to the armchair linguistic intuition of the author of this paper, the pattern of judgments remains the same:

(11)   a. Ich habe die Gäste*G* sich*G* gegenseitig vorgestellt
             I have the guests-ACC SE each other-DAT introduced
             "I introduced the guests to each other."
         b. *Ich habe den Gästen*G*   sich gegenseitig*G*   vorgestellt.
             I   have the guests-DAT SE   each other-ACC introduced
             "I introduced the guests each other."

The problem, therefore, is not the reciprocal *einander*. As I will show in the next section, the element that makes the difference is the verb *vorstellen*. Furthermore, I will argue that contrary to Featherston and & Sternefeld's interpretation example sentences with this verb prove the relevance of the obliqueness hierarchy for anaphora binding, whereas the material used in their experiment is seriously confounded by a factor that they, it seems, were not aware of.

   The second finding about the relevance of intensifiers, (9b), on the other hand, is a very important finding. It raises a number of further empirical and conceptual questions. I will deal with them in section 4. The third finding, (9c), that reflexives are better anaphors, is expected and I will not deal much with it.

   The fourth finding, (9d), requires some reflection about its relevance for binding theory: even if it is true that pronouns are better antecedents, it is yet unclear whether binding theory should deal with this at all. Till now, binding theory makes no predictions about antecedents that go beyond what is expressed by the obliqueness hierarchy. Consider the following example which was among the test conditions of the experiment:

(12)   Ich habe ihm   ihn   gezeigt.
         I   have him-DAT him-ACC shown
         "I showed him to him."

Even with a suitable context, the interpretation of such a clause is difficult, as either pronoun needs an antecedent of its own, and these can easily be confused. This problem could be avoided, if the pronouns were coreferent. Standard binding theory would admit this, if the dative pronoun served as antecedent – the accusative pronoun would not be bound by an antecedent whose grammatical function is higher than that of the pronoun.

   But note, just in passing, that word order is not sufficient to determine the antecedent in German, an antecedent could follow the reflexive, as in (13):

(13)   … weil   sich*P*   Peter*P* wäscht.
             because himself P.   washes
         "… because Peter is washing himself."

Therefore, the accusative pronoun in second position in (12) could also be the antecedent, which would, according to the standard view, lead to ungrammaticality. Things change with a true reflexive as bound element, whereas the addition

of the intensifier does not, in principle exclude the intensified pronoun as antecedent:

(14)   a. Ich habe ihm$_I$ sich$_I$ gezeigt.
            I   have him-DAT himself-ACC shown
        b. Ich habe ihm$_I$ ihn$_I$ selbst gezeigt.
            I have   him-DAT him-ACC SELF shown.

A final observation is concerned with the possible relevance of a scale of antecedenthood:

(15)   full NP < personal pronoun < reflexive pronoun

A plausible assumption about the category of antecedent and bound element is that the category of the bound element should be to the right of the category of the antecedent in this scale. When the antecedent is a full NP, then both a personal and a reflexive pronoun meet this requirement, whereas only the reflexive meets it with a personal pronoun as antecedent. These are two very different situations.
In binding theory, we are concerned with the constraints that regulate the choice of personal or reflexive pronouns as bound elements. Using a personal pronoun as antecedent obviously has an independent influence on this choice and therefore potentially serves to hide the grammatical constraints we are looking for.

3 Facts and confounding factors in reflexive binding by object

Is it correct that the obliqueness hierarchy constrains the possibility of reflexive binding by an object in German? This is the question that we seek to answer. In order to do so, we construct example sentences and elicit judgments about them. The (un-)acceptability of these examples should without doubt be due to the factors we are interested in. Let us look at Grewendorf's original example again (with original judgments):

(16)   Der Arzt zeigte   den Patienten$_P$ sich$_P$ / *ihm$_P$ im   Spiegel.
        the doctor showed the patient-ACC himself-DAT/ him-DAT in the mirror

Given the preference for subject antecedents for the reflexive *sich*, it is certainly unfortunate that both the subject and the accusative object are possible antecedents here. This can easily be avoided with a subject in first or second person:

(17)   Ich zeigte   den Patienten$_P$ sich$_P$ / *ihm$_P$ im   Spiegel.
        I   showed the patient-ACC himself-DAT/ him-DAT in the mirror

The test material in the experiment by Featherston & Sternefeld (2003) also see-med to be confounded by this problem. Featherston & Sternefeld (2003) note that ungrammatical sentences like (18) were judged better than expected. Their interpretation of this is that this is due to the fact that the two sentences are total-ly fine under a non-coreferential reading. Although subjects were instructed to give judgments for a reading with coreference of the two objects, the acceptabi-lity of these other readings had an effect.

(18)   a. Die Friseurin zeigte   ihn$_I$ ihm$_I$
             the barber   showed him-ACC him-DAT
         b. Die Friseurin zeigte   den Kunden$_K$ ihm$_K$
             the barber   showed the client-ACC him-DAT

A more seriously confounding factor has first been observed by Jackendoff (1992). It is, strictly speaking, possible that antecedent and anaphor may refer to different entities. Consider the following examples:

(19)   The other day I was strolling through the wax museum with Ringo
         Starr, and we came upon the statues of the Beatles, and …
         a. All of a sudden Ringo started undressing himself
            (himself = person or statue)
         b. ?All of a sudden Ringo stumbled and fell on himself
             (himself = statue)
         c. All of a sudden I accidentally bumped into the statues, and *Ringo
            toppled over and fell on himself.
            (Ringo = statue; himself = person).
         (Jackendoff 1992:4)

It is possible to use a person's name when referring to a statue or image of that person. It is also possible to switch between person and statue/image within a binding relation, but crucially only in the way that the real person may be the antecedent and the statue/image the bound element, not the other way around. I will refer to this constraint as the *Ringo constraint*.

     Jackendoff also reported the following contrast which is directly relevant for our case:

(20)   a. I showed John himself in the mirror
         b. *I showed John to himself in the mirror

In the ungrammatical example (20b), the antecedent is the mirror image and the anaphor is the real person. Fortunately, English has the dative alternation, so there is a way to construct the sentence such that both the obliqueness hierar-chy[3]and the Ringo constraint can be obeyed, as in (20a).

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[3]Pollard & Sag (1992) formulate the hierarchy for English in the following way:

German does not have such an option.[4]

(21)   a. Ich zeigte   den Patienten$_P$ sich$_P$ im   Spiegel
             I   showed the patient-ACC himself-DAT in the mirror
         b. Ich zeigte   dem Patienten$_P$ sich$_P$ im   Spiegel
             I   showed the   patient-ACC himself-DAT in the mirror

Example (21a) violates the Ringo constraint and fulfills the obliqueness hierarchy, (21b) vice versa. There is no way to fulfil both constraints at the same time. This problem occurs with nearly all ditransitive verbs that figure in the debate about binding by object, including the verbs used in the experiment by Featherston & Sternefeld (2003).

Most of these verbs are verbs of communication. They assign three semantic roles, a speaker role, a hearer role, and a theme role which denotes whatever the communication is about. Speaker and hearer roles are linked to subject and dative object, respectively. These are the real persons involved here. If the accusative object is made coreferent with the hearer, then the hearer is turned into something that could be communicated (like the mirror image with a verb like *show*), and this, in turn, activates the Ringo constraint.

But there is an exception to this pattern, namely the verb *vorstellen* ('introduce') that we mentioned already at the end of the previous section. It describes a communicative situation between three persons. Both of its objects denote real persons and the problem posed by the Ringo constraint does not occur. However, apart from some magical or science-fiction setting, the use of a reflexive pronoun is semantically odd. But reciprocals are fine here (repeated from (10)):

(22)   a. Ich habe die Gäste$_G$ einander$_G$ vorgestellt
             I   have the guests-ACC each other-DAT introduced
             "I introduced the guests to each other."
         b. *Ich habe den Gästen$_G$ einander$_G$ vorgestellt.
             I   have the guests-DAT each other-ACC introduced
             "I introduced the guests each other."

I conclude: (22) and (11) are the best example sentences we can construct in order to figure out whether the obliqueness hierarchy is relevant for reflexive binding by objects in German. These examples are free from the relevant confounding factors that we thus far could identify. There is large agreement about the acceptability status of these examples. Furthermore, the evidence very clearly shows that the obliqueness hierarchy in its original form is crucial for the grammar of reflexive binding in German.

        Subject < Primary Object < Secondary Object < Other Complements
    [4]Given the discussion above, I refrain from indicating judgments here. So, no "*" does not mean "ok" here, but simply ignorance.

We are not finished yet, however. One striking result of the study by Featherston & Sternefeld (2003) is the observation that the use of an intensifier has a huge impact on the acceptability of these structures. I will target this issue in the two following sections.

4   Complex reflexivization in German

In Featherston & Sternefeld's (2003) study, gradient acceptability judgments were elicited. The 16 experimental conditions could then be ranked according to their average rating. It turned out that among the eight top ranked conditions, six contained the intensifier *selbst* – out of eight conditions overall that contained *selbst*. Independent of the confounding factors discussed in the previous section, this finding calls for attention.[5]

What is the role of the intensifiers? Why does the obliqueness hierarchy not play a role in such examples? Before answering these questions, I want to broaden the perspective a bit by looking at other cases of intensifiers occuring in reflexives.

The first example are reflexives as genitive objects both within the verbal and the nominal domain. Genitive objects within the verbal domain have become extremely rare. Nevertheless, the reflexivization pattern is quite clear:

(23)   a. Maria$_M$ erinnerte sich ihrer$_{*M/X}$ / ihrer$_{M/*X}$ selbst
               M.   remembered her-GEN / her-GEN SELF
          b. Holgers$_H$ Bilder *seiner$_{H/X}$ / seiner$_{H/*X}$ selbst
               H's   pictures him-GEN / him-GEN SELF

In both cases, coreference requires the presence of *selbst*. A coreferential interpretation is blocked for the genitive object in (23a) without the intensifier. Thus, the distribution we find here is typical for the pronoun/anaphor distinction. We can therefore assume that for genitive objects of V the pronoun is *ihrer/seiner* and the anaphor is *ihrer/seiner selbst*.

With respect to objects within NP, the pronominal paradigm lacks a genitive form. It is usually replaced with the preposition *von* as in "Bilder von ihm" ('pictures of him'). Nevertheless, the anaphor version *seiner/ihrer selbst* still exists, besides the prepositional variant "von sich" – though it has an archaic flavour. Again, coreference, requires an anaphoric form (*seiner selbst* or *von sich*), whereas non-anaphoric forms (*von ihm*) are interpreted as non-coreferent.

While *sich* is a morphological SE anaphor, we can conclude from this that German also has true SELF anaphors, namely these genitive variants.

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[5]That reflexives bound by an object may be structurally different, has also been argued for by Grewendorf (2003) who claims that *sich* in this case is accompanied by a phonetically empty intensifier.

A further context where we find intensifiers are possessives. German only has one possessive pronominal form, lacking the pronoun/anaphor distinction within the paradigm. However, complex forms can be built with the adjective *eigen* ('own'). Consider the following case:

(24)   Peter*P* sang seine*P/X* / seine eigenen*P/*X* Lieder.
        P.   sang his   / his   own   songs

Possessive pronouns are ambiguous between a pronominal and an anaphoric interpretation. Therefore, plain *seine* could be coreferent with the subject of the clause or with some other individual. When it is accompanied by *eigenen*, the ambiguity is resolved and the expression receives an anaphoric interpretation. Although the addition of the intensifier leads to an expression that is interpreted like a reflexive, the anaphoric interpretation is not blocked for simple *seine*. This is different to the case of genitive objects discussed above.

Following suggestions about the evolution of reflexivizer systems by Levinson (1991), we can use this difference to classify genitive reflexives and possessives with intensifiers as belonging to two different diachronic stages. Whereas the blocking of a reflexive interpretation for the genitive pronoun indicates the grammaticalization of a reflexive pronoun (i.e., *seiner/ihrer selbst*), the ambiguity of the simple possessive pronoun (*sein/ihr*) signals that in this case a reflexive possessive pronoun with the intensifier *eigen* has not yet been grammaticalized.

To which of these two stages do the expressions belong that we observe in binding by object? One irritating aspect of Featherston and Sternefeld's (2003) results is that it does not seem to matter whether a pronoun or the reflexive *sich* is used, as long as it is accompanied by *selbst*. Sentences like (25a) have received almost the highest rating, but sentences like (25b) have only been judged a little bit worse.

(25)   a. Ich zeigte dem Kunden   sich   selbst im   Spiegel.
            I showed the client-DAT himself-ACC SELF in the mirror
         b. Ich zeigte   dem Kunden ihn   selbst im   Spiegel
            I   showed the client-DAT him-ACC SELF in the mirror
            "I showed the client himself in the mirror."

We can understand the role of the intensifier here as signalling that the elements it is attached to, *sich* or the pronoun, are not interpreted in their usual way – following a tradition of pragmatic analysis of this kind of phenomena (Levinson, 1991). In this particular case, the elements are made exempt from the binding principles by the addition of the intensifier. This allows *sich* to occur in a context where it violates the obliqueness hierarchy and it allows a pronoun to be co-indexed with a co-argument. The use of the pronoun in (25b) is actually in line with the obliqueness hierarchy. One possible route for the grammaticalization of

such expressions could then be that pronoun+*selbst* is preferred for contexts like (25), whereas *sich+selbst* is preferred for contexts where occurrence of *sich* is in line with the obliqueness hierarchy.

The fact that both options are allowed in (25) shows that grammaticalization has not yet occurred. The pragmatic mechanisms that govern the use of intensifiers, here signalling the unexpected interpretation of binding by object, are fully sufficient to fill this gap in the paradigm of German reflexives.

This usage of *selbst* can be understood as a repair phenomenon. It therefore invites an analysis in terms of optimality theory, which has proven to be particularly successful in modelling repair phenomena (Müller 2012).

The analysis requires three constraints. In addition to the Ringo constraint and the obliqueness hierarchy we need the faithfulness constraint DEP that penalizes epenthetic elements. We will treat *selbst* as such an element. We further assume that, as explained above, that epenthesis of *selbst* exempts *sich* or a pronoun from syntactic binding principles. *Selbst* can be understood as a derivational affix. *Sich selbst* is then not an inflectional variant of *sich*, neither is *ihn selbst* such a variant of *ihn*, both are new words with different categorial features. They do not belong to the categories of "pronoun" or "anaphor" as defined by binding theory. The constraint ranking is as in (26):

(26) RINGO ≫ OBL. HIER. ≫ DEP

Whenever the use of plain *sich* would violate the obliqueness hierarchy constraint, the insertion of *selbst* leads to an improvement. The Ringo constraint cannot be neutralized by inserting *selbst* because it is a semantic constraint. This leads to the observed preference for antecedents with dative case and *selbst*-reflexives with typical ditransitive verbs. Note that no difference is being made between "*sich*+selbst" and "pronoun+*selbst*", so both have an equal violation profile for the relevant constraints in this analysis.

5 Conclusion

The picture of the inventory of German reflexives that emerges from this discussion is characterized by heterogeneity. Different solutions have emerged for different contexts of reflexivization. These also differ in their degree of grammaticalization.

With respect to German object-related reflexives, we concluded that most of the ditransitive verbs used in the discussion induce a violation of the Ringo constraint, if the binding relation is in accordance with the obliqueness hierarchy. This leads to the high preference for non-grammaticalized reflexive expressions formed by the addition of the intensifier *selbst*. The thus formed complex reflexives receive their reflexive interpretation due to pragmatic mechanisms described for binding theory, e.g., by Levinson (1991), and also argued for by Gre-

wendorf (2003): the intensifier signals the unexpected co-indexation for the reflexive expression.

It is therefore inappropriate to conclude from this kind of data that the obliqueness hierarchy plays no role in syntactic binding in German. My proposal predicts that the hierarchy will be decisive, when a verb is chosen that does not induce the Ringo problem. Such verbs are rare in German. One well known case is the verb *vorstellen* ('to introduce') which, as we discussed, displays exactly the predicted asymmetries. Contrary to many authors, I interpret this case not as exceptional, or even a performance issue. Rather, it is an instance of the *emergence of the unmarked*, as we call it in optimality theory: such cases prove the existence of a low-ranked constraint the effects of which are often neutralized by higher ranked constraints.

Given the rarity of verbs like *vorstellen*, this phenomenon also teaches us a lesson about empirical studies: experimental or corpus research on these issues that does not respect such crucial semantic differences between ditransitive verbs will undoubtedly produce misleading findings like the preference for binding of accusative by dative in Featherston & Sternefeld (2003). It is important to check very thoroughly the lexical material that is being used in empirical studies, especially in experiments. We have learned that our test material should consist of lexical variants of the same kind of structure. In order to achieve this, we are often willing to pay the price of using lexical material of unknown heterogeneity, naively hoping that this variation distributes evenly among experiment conditions.

This leads to the shortcomings of Featherston & Sternefeld's (2003) experiment which I discussed in some detail. The experiment played a central role in the dispute about the benefits of experimentation for theoretical linguistics between Featherston (2007) and Grewendorf (2007). Although my remarks are rather critical, I do value this kind of research a lot.

I feel happy, however, to stand on the side of the "armchair linguist" in this particular dispute, although I generally agree with the position that the field will improve with higher methodological standards for empirical investigations. But those methods cannot replace classical "armchair linguistics", i.e. analytical reflection and theory building. We should not turn this into a dogma: sometimes we make progress by reflecting on what we already know, and sometimes we make progress by making new observations. We need both, and especially as an empirically oriented linguist, I am glad that I had the opportunity to learn the basics of linguistic analysis from such an excellent teacher like Günther Grewendorf.

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