ARE REFLEXIVE CONSTRUCTIONS TRANSITIVE OR INTRANSITIVE? EVIDENCE FROM GERMAN AND ROMANCE

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Abstract

Despite the substantial literature dedicated to it, the status of the reflexive is still controversial. Among others, the question whether reflexive constructions are transitive or intransitive, and if intransitive, whether they are unaccusative or unergative, has been intensively investigated. In this paper, we discuss this issue with data from German and Romance. We argue against the intransitivity hypothesis, showing that the reflexive behaves like a direct object. We implement the transitivity hypothesis in LMT, explaining why some reflexivized verbs behave like unaccusatives, while others show unergative-like behavior.

1 Introduction[1]

The last decades have seen much work on reflexives in a wide variety of languages under different theoretical perspectives. In this paper, we reconsider certain properties of reflexives in German and Romance within the framework of LFG, especially from the perspective of Lexical Mapping Theory (LMT), its argument linking module (e.g., Bresnan 2001, Falk 2001). The primary focus lies on the reflexives examined also by Grimshaw (1982), i.e., reflexive verbs (1), reflexives in decausative (i.e. anticausative) constructions (2), and intrinsic reflexives (3).

(1)   a.   Max rasiert sich.   (German)
              Max shaves REFL
       b.   Max se rase.   (French)
              Max REFL shaves
              'Max shaves.'
(2)   a.   Die Tür öffnet sich.   (German)
              the door opens REFL
       b.   La porte s'ouvre.   (French)
              the door REFL opens
              'The door opens.'
(3)   a.   Max schämt sich.   (German)
               Max ashamed REFL
              'Max is ashamed.'
       b.   Max s'évanouit.   (French)
               Max REFL faints
              'Max faints.'

The literature about reflexives is abundant. We distinguish three different positions concerning the argument status of the reflexive pronoun: the Strong Uniform Approach, the Weak Uniform Approach, and the Forked Approach (Alencar 2005). The first position maintains that the reflexive pronoun is a syntactic argument of the verb in all constructions, e.g. Selig (1998), Turley (1999), Steinbach (2002), and Kaufmann (2003 a, 2003 b). As far as the verbs in (1) to (3) are concerned, this view amounts to the *transitivity hypothesis*. The opposite view is taken by the second approach, the Weak Uniform Approach, according to which the reflexive is not a syntactic argument of the verb in any construction, e.g. Grimshaw (1982), Wehrli (1986), Alsina (1996), and Reinhart and Siloni (2004, 2005).[2] In the case of the

[2] Sells, Zaenen and Zec (1987) espouse the Weak Uniform Approach for German reflexive *sich*, but the Strong Uniform Approach for Dutch *zich*.

reflexivization of monotransitive verbs, this analysis equals what we will refer to in this paper as the *intransitivity hypothesis*. Finally, defenders of the Forked Approach assume that the reflexive is a syntactic argument of the verb only in some constructions. For these scholars, the verb in (1) instantiates a transitive entry, while (2) and (3) instantiate intransitive entries, e.g. Helbig and Buscha (1991), Oesterreicher (1992), Butt et al. (1999), and Waltereit (2000).

Within derivational generative grammar, the advocates of the intransitivity hypothesis are divided into two opposing camps, as to whether reflexive constructions represent unaccusative or unergative entries. This, in turn, depends on whether the intransitive predicate's argument is internal or external. In LFG, as in Lexical Decompositional Grammar (LDG) (Kaufmann 1995), this syntactic configurational-based distinction is reinterpreted semantically: unaccusatives have a theme/patient argument, while unergatives have an agent argument. Recast in terms of LMT, the intransitivity approach has to decide whether the sole element in the argument structure of reflexivized verbs is an agent or a theme/patient argument, marked, respectively, as [-o] and [-r].

In this paper, we address questions (i) and (ii) concerning the status of the *se/sich* element and (iii) concerning the argument structure of the reflexive constructions from (1) to (3):

i.   Is it a syntactic argument of the verb or just a grammatical marker of valency reduction without argument status?
ii. Is it a decausativity marker, or is it a detransitivity marker?
iii. Does a reflexivized verb instantiate an unaccusative or an unergative argument structure?

We will argue for a uniform treatment of reflexives as syntactic arguments in all constructions from (1) to (3) and, consequently, against analyses that deny their argument status. In the following, we deconstruct, first, the main arguments in favor of the intransitivity hypothesis, including the asymmetry between reflexive verbs and transitive verbs in French causative constructions. The value of this asymmetry as evidence for intransitivity has, so far as we know, never been challenged. Second, we add evidence in favor of the transitivity hypothesis to that which has been proposed in the literature so far. Finally, we implement the transitivity analysis within the framework of LFG/LMT. The argument structures assigned to the various types of reflexivized verbs explain naturally why some of them show unaccusative-like behavior, while others show unergative-like behavior. This analysis reveals that the reflexive is a thematic direct object in (1) and an expletive and hence non-thematic direct object in the constructions (2) and (3). In the case of (2), this expletive can also be seen as a marker of decausativization, since it results from the application of a lexical rule which suppresses the agent role from the verb's LCS.

This paper is structured as follows. First, we show in section 2 that the arguments in favor of the intransitivity hypothesis are flawed. In section 3 positive evidence is presented supporting the transitivity hypothesis. Section 4 implements this analysis in terms of the LMT formalism. Finally, the main conclusions from the paper are drawn in section 5.

2   Against the intransitivity hypothesis

Those scholars who have supported the intransitivity hypothesis in Romance, among them Grimshaw (1982), cite the parallel behavior of French reflexive verbs and intransitive verbs in causative constructions and in NP extraposition as evidence for their analysis. As far as German is concerned, the apparently analogous behavior of German reflexive verbs and intransitive verbs, for instance in impersonal passive constructions, has long been considered

evidence of the non-argument status of the reflexive (e.g. Sells, Zaenen and Zec 1987, Butt, King et al. 1999). However, all these behaviors must be weighed against other important evidence.

2.1 French causative constructions

The asymmetry between (5) and (7) and the parallel between (4) and (6) have long been taken as evidence of the intransitivity of the reflexive. Examples (4) to (6) were taken from Reinhart and Siloni (2004:162, 2005:393), but similar data have been cited by proponents of the intransitivity hypothesis since Kayne (1975). The grammaticality of (6), though, is controversial, as we will see later.

(4) Je ferai   courir Paul.   intransitive
     I make.1PS.FUT   run Paul
     'I'll make Paul run.'
(5) Je ferai   laver Max à Paul.   transitive
     I make.1PS.FUT   wash Max to Paul
     'I'll make Paul wash Max.'
(6) Je ferai   se   laver Paul.   reflexive
     I make.1PS.FUT   himself   wash Paul
     'I'll make Paul wash himself.'
(7) *Je ferai   se   laver à Paul.   reflexive
     I make.1PS.FUT   himself   wash to Paul

   From (4) to (7) we draw a completely different conclusion, namely that the asymmetrical behavior of the reflexive verb in these examples is not due to its alleged intransitive status. Instead, we show below that it follows either from binding constraints on the reflexive anaphor or from linking constraints in biclausal causative constructions. In order to demonstrate this, we must first take a brief look at the grammatical regularities of complex predicate formation in the case of causative constructions such as (4) and (5).

2.1.1 Complex predicate formation: the monoclausal construction

With Alsina (1996), Abeillé, Godard and Miller (1997), and Butt (1997), among others, we assume that complex predicate formation in examples like (4) and (5) as well as (8) involves the creation of a new argument structure out of the argument structures of the causative and the embedded predicate. The resulting f-structure is monoclausal, instantiating a single domain of predication.

(8) J'ai   fait   écrire une lettre   au directeur   par Paul. (Comrie 1981:172)
     I have made   write   a letter   to the director by Paul.
     'I made Paul write a letter to the director.'

   The assignment of grammatical relations to this complex argument structure follows a cross-linguistically well observed pattern, which we call, for convenience only, the Default Causativization Paradigm (DCP), schematized in (9) to (11). Grey shading indicates the argument structure contributed by the embedded predicate. Bold type and dark grey shading highlight grammatical function change in the embedded verb's valency frame.

(9)   Causativization of an intransitive verb (cf. (4))

LCS	Agent	**Causee**
a-structure	x	**y**
f-structure	SUBJ	**OBJ**

(10)   Causativization of a transitive verb (cf. (5))

LCS	Agent	**Causee**	Theme
a-structure	x	**y**	z
f-structure	SUBJ	**OBJ_θ**	OBJ

(11)   Causativization of a ditransitive verb (cf. (8))

LCS	Agent	**Causee**	Theme	Beneficiary
a-structure	x	**y**	z	w
f-structure	SUBJ	**OBL_θ**	OBJ	OBJ_θ

In the DCP, the causer (the main predicate's agent) is always assigned the SUBJ, while the causee (the participant caused to do something) maps either onto the OBJ or a lower grammatical function on the Relational Hierarchy in (12), depending on the base verb's valency. The DCP is driven by the Uniqueness Condition (Falk 2001:115), which rules out multiple instantiations of a single grammatical function in the same domain of predication.[3]

(12)   Relational Hierarchy (Bresnan 2001:96)
        $SUBJ > OBJ > OBJ_\theta > OBL_\theta$

According to the DCP, if the embedded verb is intransitive, the causee is mapped onto OBJ (cf. (9)). In the case of a transitive verb, the assignment of the OBJ relation to the causee would violate Uniqueness. To avoid this, the causee is mapped instead onto OBJ_θ (cf. (10)), the next available lower function in (12). Through an analogous strategy, the causee maps onto OBL_θ in the causativization of a ditransitive verb (cf. (11)).

The DCP is the most widespread pattern cross-linguistically, but not a grammatical universal. For example, the agent of a transitive verb may sometimes be realized as an OBL_θ (introduced by *par* 'by') instead of OBJ_θ (marked by *à* 'to') (cf. (13)).[4]

(13)   Jean   a   fait   manger   les   pommes   à/par   Paul.
        John   has   made   eat   the.PL apples   to/by   Paul
        'John   has made Paul eat the apples.'

In the following section, we consider a second type of causative construction.

2.1.2   Another causative construction: the biclausal construction

Analogously to Urdu (Butt 1997), Romance languages do not have only the monoclausal causative construction of the type *faire laver* 'make wash' (which is structurally similar to the Urdu Permissive). In our view, (6) exemplifies the so-called biclausal Equi construction, prototypically represented by the verb *laisser* 'let', exemplified in (14) (Kroeger

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[3] Multiple instantiations of OBJ_θ and OBL_θ are licensed if θ is differently instantiated (Falk 2001:106, FN 11).
[4] Some speakers prefer *par* 'by' to express the causee in this case. It is not clear whether this alternation is syntactically or semantically conditioned, as Abeillé and Godard (2003:134, FN 17) point out.

2004:223). As Abeillé, Godard and Miller (1997) propose, French causative *faire* 'make' has both the monoclausal and the biclausal construction.

(14) Marie a   laissé Paul lire   ces romans.
      Marie has   let   Paul read   these novels
      'Marie let Paul read these novels.'

In the biclausal causative construction, the main verb does not form a complex predicate with the embedded verb instantiating a single domain of predication. Instead of a flat f-structure, we have a complex f-structure with two domains of predication in (14), as in the Urdu Instructive (cf. Butt 1997). In French as well as in Portuguese, German, etc. the causee is realized in this case as the main clause OBJ, independently of the valency of the embedded verb. This type of causative is an object control verb with the valency frame <SUBJ OBJ XCOMP>, as schematized in (15).

(15) The biclausal causative construction

LCS	Agent	Causee	Caused action
a-structure	x	y	p
f-structure	SUBJ	OBJ	XCOMP

The distinction between the biclausal and the monoclausal construction in French correlates with clitic positioning, as evidenced in (16) and (17). As in (6), in (16) the clitic is adjacent to the verb of the embedded clause, separating it from the causative verb. In contrast, in the monoclausal construction, the causative and the embedded verb must be adjacent. A clitic may not separate them, as shown in (17).

(16) a.   Marie a   laissé Paul les   lire.
           Marie has   let   Paul them.ACC   read
           'Marie let Paul read them.'
      b.   *Marie les   a laissé   Paul lire.
           Marie them.ACC   has let   Paul read   (Kroeger 2004:223)
(17) a.   Je le   ferai   laver à Paul.
           I him.ACC   make.1PS.FUT   wash to Paul
           'I'll make Paul wash him.'
      b.   *Je ferai   le   laver à Paul.
           I make.1PS.FUT   him.ACC   wash to Paul

In the next section, we reconsider the examples (6) and (7) in order to analyze their (un)grammaticality.

2.1.3 Explaining the behavior of reflexive verbs in causative constructions

With the distinction of the two different causative constructions, we can now explain the data in (6) and (7). Contrary to advocates of the intransitivity hypothesis, who consider the reflexive in (6) to be a mere intransitivization marker of a verb in a monoclausal causative construction of type (9), we analyze (6) as a biclausal causative construction, as suggested in the previous section. The reflexive instantiates, then, the OBJ of the embedded clause, which in turn functions as the main clause XCOMP. The NP *Paul* (i.e. the causee) instantiates the main clause OBJ, according to (15).

Cross-linguistically, reflexive anaphors are subject to item-specific binding constraints (Dalrymple 1993). For Romance *se*, its antecedent is constrained to be a SUBJ in its *Minimal*

Complete Nucleus, that is, the nucleus that contains the reflexive and a SUBJ that outranks it (Bresnan 2001:218-219). From the perspective of biclausal causativization and binding theory, we can see why (6) is possible. Here, the binding constraint is obeyed: the reflexive that is realized as the XCOMP OBJ function is bound by the implicit XCOMP SUBJ (realized as the main clause control verb's OBJ, i.e. *Paul*).

Turning to (7), there are two possibilities of explaining its non-grammaticality by means of independent principles without resorting to the intransitivity hypothesis. First, (7) can be seen as instantiating the same complex predicate *faire laver* 'make wash' of (5). In this case, this example is unacceptable due to a violation of the binding constraint on the reflexive. In fact, the Romance anaphor *se*, realizing an OBJ, may not be bound by a non-SUBJ co-argument (cf. (18)), let alone by a more oblique one, according to the Relational Hierarchy in (12) (cf. Dalrymple 1993). The PP *à Paul* 'to Paul' in (7) cannot bind the anaphor, since this PP is an OBJ_θ.

(18) *Jean s_i'   est montré   l'enfant$_i$.
      Jean   REFL$_i$ is   shown   the child$_i$

Secondly, one could analyze (7) as biclausal, since the reflexive separates the causative and the embedded verb. In this case, there is no violation of binding principles, because the reflexive is not bound by the OBJ_θ, but by the XCOMP SUBJ, which is functionally controlled by the main clause OBJ_θ. Under this analysis, the ungrammaticality of the construction is due to the lack of justification for realizing the causee as OBJ_θ. Recall that in biclausal causative constructions, the causee maps by default onto OBJ (cf. (15)).

From the analysis of (6) and (7) as biclausal, however, it seems to follow that (19) should be grammatical and (20) ungrammatical. This prediction, however, is not borne out. While (20) is not fully acceptable by all speakers, as Abeillé and Godard (2003:174) observe for parallel examples, (19) is invariably rejected.

(19) *Je   ferai   se   laver les mains   Paul.
      I   make-1PS.FUT   REFL wash   the hands   Paul
(20) ?Je   ferai   se   laver les mains   à Paul.[5]
      I   make-1PS.FUT   REFL wash   the hands   to Paul
      'I will make Paul wash his hands.'

The asymmetry between (19) and (20) seems, then, to support the monoclausal analysis of (6) as proposed within the intransitivity hypothesis. On the one hand, the prohibited realization of the causee in (19) as an OBJ would follow from the Uniqueness Condition. On the other hand, its realization as an OBJ_θ, paralleling (5), would follow from the Relational Hierarchy constraint.

Speakers of French, though, do accept (21 a), where the causee is realized as a clitic OBJ, along with (21 b), where it surfaces as a clitic OBJ_θ. The former construction is even preferred over the latter by some speakers.

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[5] We are grateful to Alex Alsina (p. c.) for suggesting these two examples.

(21) a. Je le ferai se laver les mains.
　　　 I him.ACC make.1PS.FUT REFL wash the hands
　　 b. Je lui ferai se laver les mains.
　　　 I him.DAT make.1PS.FUT REFL wash the hands
　　　 'I will make him wash his hands.'

Therefore, it seems that the unacceptability of (19) is not due to the causee being realized as an OBJ in itself, something that would cast serious doubt on our claim that this element realizes an OBJ. Instead, the problem with (19) lies in the unusual placement of the OBJ of the main clause. In biclausal constructions in French, a main clause OBJ canonically comes just after the main verb (cf. (22) and (23)). By contrast, the main OBJ surfaces only after the embedded OBJ in (19).

(22) Je laisserai Paul se laver les mains.
　　 I let.1PS.FUT Paul REFL wash the hands
(23) *Je laisserai se laver les mains Paul.
　　 I let.1PS.FUT REFL wash the hands Paul
　　 'I will let Paul wash his hands.'

As a matter of fact, speakers who accept both (21 a) and (21 b) reject (6), where the main clause OBJ, according to our analysis, is also displaced. They find (24), though, fully grammatical.

(24) Je le ferai se laver.
　　 I him make.1PS.FUT himself wash
　　 'I'll make him wash himself.'

These judgements about (6) and (24) mirror the opinion of Abeillé, Godard and Miller (1997), who reject (25), while accepting (26). This is structurally parallel to (24), with the clitic *le* instead of the reflexive realizing the embedded clause OBJ. This construction, though, is rejected as non-standard by some speakers, who prefer the monoclausal version in (27).

(25) *Le professeur fera le lire les secondes.
　　 The professor make.FUT.3PS it read the.PL assistants
　　 'The professor will make the assistants read it.'
(26) Le professeur nous a fait le lire. biclausal
　　 The professor us has made it read.
　　 'The professor made us read it.'
(27) Le professeur nous l'a fait lire. monoclausal
　　 The professor us it has made read.
　　 'The professor made us read it.'

Note that proponents of the intransitivity approach, from Kayne (1975) to Reinhart and Siloni (2004, 2005), treat (6) as a structurally exact parallel to (4). Under this analysis, both sentences instantiate the ordering SUBJ $<_f$ PRED $<_f$ OBJ (where $<_f$ symbolizes f-precedence, see section 3.1). However, there is a strong acceptability contrast between these two structures among native speakers. This is completely unexpected if we consider (6) a monoclausal construction and the reflexive just a valency reduction marker without argument status. In contrast, if we view the reflexive as the OBJ of the embedded clause of a biclausal construction, we can predict that speakers who reject (25), as reported by Abeillé, Godard and

Miller (1997), will also consider (6) to be ungrammatical, and this has in fact been corroborated by our own informants.

2.1.4 Summary

To sum up, we assume two different constructions for the French verb *faire* 'make'. The first construction is the more common monoclausal construction (cf. (5) and (4)), the second is the biclausal construction (cf. (6)). The existence of these two different constructions and their interactions with binding and linking constraints explain the observed asymmetries between non-reflexivized and reflexivized verbs and intransitive verbs. We do not have to postulate reflexives to be intransitive in order to explain these data. Besides, the intransitive hypothesis leads to wrong predictions about the behavior of reflexivized transitives and intransitives in causativization. By contrast, the transitivity hypothesis accounts for the observed asymmetry, showing that reflexivized transitives behave like transitives.

2.2 NP extraposition

As we will show in this section, the argument in favor of the intransitivity hypothesis based on asymmetrical behavior of reflexives and transitives in French NP extraposition does not stand up to close scrutiny. As one can see from the examples (28) to (31) from Grimshaw (1982:112-116), NP extraposition is licensed for unaccusatives and decausative reflexive verbs (type of (2)), as shown in (28) and (29), respectively, but completely impossible with transitive verbs, as evidenced in (30) and (31).

(28) Il   passe un   train toutes les   heures.   unaccusative
     it   passes a   train all.PL the   hours
     'A train goes by every hour.'
(29) Il   se   brisera   beaucoup de verres.   decausative reflexive
     it   REFL   break.FUT   many of glasses
     'Many glasses will break.'
(30) *Il   mangera   cette tarte   trois filles.   transitive
     it   eat.FUT   this   pie   three girls
(31) *Il   mangera   trois filles cette tarte.
     it   eat.FUT   three girls   this   pie

However, native speakers of French do not accept NP extraposition for example (32) (from Martin 1970:380) with a reflexivized transitive verb (type of (1)) and for (33) with an unergative verb:

(32) *Il se fardait   un acteur dans sa loge.   reflexivized transitive
     it REFL make-up.PAST   an actor in his dressing-room
(33) *Il a   dormi trois   filles dans ce lit.   unergative
     it has slept three   girls   in this bed

It follows that the asymmetrical behavior of the sentences in (28) to (31) cannot be attributed to the contrast between transitivity and intransitivity, but to semantic factors.

2.3 Auxiliary selection in Romance

In Romance, auxiliary selection was long taken as evidence in favor of the intransitivity hypothesis, because reflexive verbs in French and Italian always select 'be' instead of 'have'. Notwithstanding this fact, one must consider that Portuguese, Spanish and Catalan select

'have' for all verbs, including reflexivized verbs. Besides, even proponents of the intransitivity hypothesis currently reject auxiliary selection as a criterion for pairing reflexivized and intransitive verbs. As Reinhart and Siloni (2004:168), who espouse the intransitivity hypothesis, put it, auxiliary selection "is an intricate matter, which is not yet well understood". Selection of 'be' by French and Italian reflexive verbs is not tied to intransitivity, as Schwarze (1998:103-104) shows, but to reflexivity (i.e. the mere syntactic presence of the reflexive pronoun), since there are intransitives in both languages which select 'have'. Non-reflexive intransitive verbs in French, such as *réussir* 'succeed' and *rougir* 'blush', whose translation equivalents in Italian take 'be', most commonly select 'have' (Schwarze 1998:103).

As far as auxiliary selection of reflexive verbs is concerned, we have a clear contrast between German, on the one hand, and French and Italian, on the other. In German, as we will see in section 3, selection of 'have' by all reflexivized verbs implies that they are transitives, since all transitives in German select this auxiliary. In French and Italian, however, the fact that reflexive verbs always select 'be' does not mean necessarily that they are intransitives, since one cannot predict the auxiliary of a particular verb from its transitivity status. We can conclude that selection of 'be' by French and Italian reflexive verbs cannot be taken as evidence that these verbs are intransitive.

2.4   Impersonal passive constructions

Sells, Zaenen and Zec (1987) conclude from the asymmetry in (34) to (36) that the reflexive does not have OBJ status. As with other arguments in favor of the intransitivity hypothesis, this one also does not stand up (Alencar 2005).

(34)   Gestern   wurde getanzt.
        yesterday   was   danced
        'Yesterday dancing took place.'
(35)   Jetzt   wird   sich   gewaschen!
        now   is   oneself   washed
        'Now one must wash oneself!'
(36)   a.   Jetzt   wird   der Brief   geschrieben.
                now   is   the letter.NOM   written
        b.   *Jetzt wird   den Brief   geschrieben.
                now   is   the letter.ACC   written

We assume the passive operation to be twofold (Kroeger 2004:54, Eisenberg 1999:126): first, the active verb's SUBJ is demoted, cf. (34) and (36 a); then the active verb's OBJ is promoted to SUBJ of the passive construction, cf. (36 a). From a typological perspective, while the first operation is obligatory, the second is optional (that is, subject to parametric variation), as Kroeger (2004:54) observes. In the Finnish passive construction (37 b) (cf. active version in (37 a)), which parallels the German example (34), only SUBJ demotion applies.

(37)   a.   Äiti   jätti   hänet   kotiin.   (Finnish)
                mother   left   him.ACC   to.home
        b.   Hänet   jätettiin   kotiin.   (Finnish)
                him.ACC   was.left   to.home
                'He was left at home.'   (Kroeger 2004:54)

But if the reflexive is an OBJ, why is (35) licensed in German, while (36 b) is impossible? The answer is simple: there is no nominative reflexive in German (cf. Eisenberg

1999:129). Besides, as Bresnan (2001:7) suggests, reflexive subjects are ruled out by Universal Grammar (UG) principles. In fact, a reflexive subject would violate the Relational Hierarchy constraint (cf. (12)) on reflexive anaphors (cf. Berman and Pittner 2004:138). Assuming an optimality-theoretic account of constraints (for the combination of LFG and Optimality Theory, cf. Falk 2001:195), we claim that OBJ promotion is obligatory in the passivization of German (and of Romance, for that matter) transitive verbs. This explains the asymmetry between (36 a) and (36 b). OBJ promotion, though, is prevented from being applied in (35), because this would violate a higher order constraint, namely the invariant UG prohibition of reflexive subjects.

3   In favor of the transitivity analysis

3.1   Distribution of the reflexives

Evidence for an analysis of the reflexives in (1) to (3) as direct objects comes from distributional facts in German (Steinbach 2002) and in Romance. Reflexives are subject to exactly the same c-structure ordering constraints as object pronouns in German, as the following examples in (38) to (47) show:

(38)   weil   er   sie   plötzlich   geöffnet hat
       because   he.SUBJ   it.OBJ   suddenly   opened has
       'because he opened it suddenly'

(39)   weil   sie   sich   plötzlich   geöffnet hat
       because   it.SUBJ   REFL.OBJ   suddenly   opened has
       'because it opened suddenly'

In LFG, generalizations about precedence relations between constituents are captured by means of rules which resort to the notion of *f-precedence* (Falk 2001:67), i.e. precedence on the f-structure level. In German, we have a rule like (40) that constrains the relative ordering of subject and object pronouns in the so called Mittelfeld, which comprises the positions between the auxiliary and the main verb:

(40)   SUBJ $<_f$ OBJ

This rule accounts for the non-grammaticality of (41), where the OBJ f-precedes the SUBJ:

(41)   *weil   sie   er   plötzlich   geöffnet hat
       because   it.OBJ   he.SUBJ   suddenly   opened has
       'because he opened it suddenly'

Since the reflexive *sich* in (39) is an OBJ, inversion of the subject and reflexive in this construction is not possible:

(42)   *weil   sich   sie   plötzlich   geöffnet hat
       because   REFL.OBJ   it.SUBJ   suddenly   opened has
       'because it opened suddenly'

In European Portuguese, postverbal placement of pronominal clitics constitutes the default case (Luís and Otoguro 2004). In this respect, non-reflexive and reflexive objects behave alike (cf. (43) and (44)).

(43) O João   tinha- a   chateado.
      João   had   her.OBJ   annoyed
      'João had annoyed her.'
(44) A Maria   tinha- se   chateado.
      Maria   had   REFL.OBJ   been annoyed
      'Maria had been annoyed.'

We assume with Luís and Otoguro (2004) that preverbal placement of clitics is triggered by f-precedence rules which we generalize as (45), where X stands for an arbitrary element of the class of proclitic triggers, including quantified subjects and adverbs such as *também* 'also'.

(45) $(\uparrow X) <_f (\uparrow OBJ_{(\theta)})$

The following examples show that both non-reflexive and reflexive clitics are subject to rule (45):

(46) Alguma coisa a   tinha   chateado.   (Mateus et al. 1989:332)
      something   her.OBJ   had   annoyed
      'Something had annoyed her.'
(47) Também   se   tinha   chateado.
      also   REFL.OBJ   had   been annoyed
      'She also was annoyed.'

We can conclude that data from German and Portuguese concerning the linearization order of grammatical functions constitute strong evidence that reflexives are treated by the syntax as objects, since they are subject to the same rules as their non-reflexive counterparts. If reflexives were treated as non-arguments, one would have to formulate separate rules to account for their placement. The intransitivity hypothesis leads, then, to a less parsimonious account of the grammar than the transitivity hypothesis.

3.2   Case and auxiliary selection in German

As Bierwisch (1996) and Kaufmann (2003 b) have suggested, the correlation between case and auxiliary selection in German also shows that the reflexive is an object.

(48) Er hat sich   vor dem Hund   erschrocken.
      he has REFL of the dog   frightened.
      'He became frightened of the dog.'
(49) Er ist   vor dem Hund   erschrocken.
      he is   of the dog   frightened.
      'He became frightened of the dog.'

German transitive constructions force selection of 'have'. Hence, the alternation from (48) with 'have' to (49) with 'be', where the meanings and semantic argument structures are virtually identical, can only be attributed to the fact that the reflexive *sich* is an object.

3.3   Past participle agreement in French

As stated in section 2.3, complex tenses in French are built with either the auxiliary *avoir* 'has' or *être* 'be' and the past participle of the main verb, which agrees in gender and number with

the subject or direct object, or remains uninflected (i.e. in the masculine singular form), depending on a complex of factors. Since direct objects can trigger past participle agreement in some contexts, this constitutes an important criterion for analyzing an element as a direct object. We will show in this section that past participle agreement in French is elegantly accounted for if, according to the transitivity hypothesis, all reflexive pronouns are analyzed as objects.

Examples (50) and (51) show that past participle agreement, in the case of intransitive verbs, is sensitive to the unergative and unaccusative distinction. With unergatives, there is no agreement with the subject (cf. (50)). With unaccusatives, though, the past participle must agree with the subject (cf. Berman and Frank 1996:130).

(50) Elle   a   dancé.
     She.FEM.SUBJ has   danced.MASC
     'She has danced.'
(51) Elle   est   arrivée.
     She.FEM.SUBJ is   arrived.FEM
     'She has arrived.'

As can be seen in (52), there is no agreement with the subject if the direct object (*sa fille* 'her daughter' in this case) does not precede the verb:

(52) La mère   a   lavé   sa   fille.
     the mother has   washed.MASC   her   daughter
     'The mother has washed her daughter.'

However, agreement with direct objects that precede the verb is obligatory, no matter whether it is a clitic pronoun (53), a relative pronoun (54), or the inverted direct object of a question (55).

(53) La mère   l'   a   lavée.
     the mother her.FEM.OBJ   has   washed.FEM
     'The mother has washed her.'
(54) la fille   que   la mère   a   lavée
     the daughter$_i$.FEM that$_i$.OBJ the mother   has   washed.FEM
     'the daughter that the mother has washed'
(55) Combien de bouteilles   ton frère   a-t-il   achetées?
     how many bottles.FEM.OBJ   your brother   has he   bought.FEM.PL
     'How many bottles did your brother buy?'

We assume that agreement has the same source in the case of reflexives, i.e. the preceding reflexive clitic, which we analyze as a direct object:

(56) La mère   s'   est   lavée.
     the mother herself.OBJ   is   washed.FEM
     'The mother has washed herself.'

That participle agreement is indeed triggered by the preceding direct object reflexive, and not by the subject as with unaccusatives in (51), is shown by the agreement behavior of indirect reflexive constructions in (57).

(57) La mère   s'   est   lavé   les mains.
      the mother   herself.OBJ$_\theta$ is   washed.MASC   the hands.OBJ.
      'The mother has washed her hands.'

As we can see in (57), there is neither agreement with the OBJ$_\theta$ reflexive clitic nor agreement with the subject, which would give *lavée*.FEM. Hence, with reflexive constructions, there is only agreement with a preceding direct object.

One could be tempted to explain this complex agreement pattern by postulating two rules: (i) the past participle agrees with the subject of an intransitive unaccusative verb or (ii) with a preceding direct object. If one classifies, as Grimshaw (1990) does, reflexive constructions as unaccusatives, then the agreement facts exemplified above are accounted for. However, the unaccusative analysis of reflexives has been much discredited in the last few years by proponents of the intransitivity hypothesis themselves (cf. e.g. Alsina 1996, Reinhart and Siloni 2004).

Under the transitivity hypothesis, though, a much more straightforward unified account of the parallel behavior of unaccusative verbs, reflexive verbs and transitive verbs with extracted objects is possible. We have to posit just one rule, namely that the past participle agrees with a preceding argument marked as [-r]. The past participle does not agree with unergatives, because the preceding argument (i.e. the subject) is a [-o] argument. As we will see in section 4, reflexive direct objects, just as non-reflexive direct objects and unaccusative subjects, are marked as [-r].

To sum up, concerning past participle agreement in complex tenses, reflexive constructions show the same behavior as transitive verbs. We therefore conclude that reflexive constructions are transitive and that the reflexive in (56) is an OBJ.

3.4   Behavior in participial constructions

The behavior of reflexives in participial constructions matches that of transitives, not that of intransitives (cf. (58)).

(58) a.   die   sich   öffnende   Tür
           the   REFL   opening   door
           'the opening door'
      b.   die   geöffnete   Tür
           the   opened   door
      c.   *die   sich   geöffnete   Tür
           the   REFL   opened   door

In (58 a), the reflexive *sich* is preserved in the present participle construction, just like any OBJ, cf. (59):

(59) ein   die   Tür   öffnender   Mann
      a   the   door   opening   man
      'a man who is opening the door'

In the past participle construction in (58 c), though, the reflexive cannot surface. This asymmetry does not find an explanation under the intransitivity hypothesis. However, the transitivity hypothesis can explain why the reflexive is prohibited from being realized in (58 c): past participles, just like passive verbs, do not subcategorize for an OBJ (Berman and Frank 1996:183). As the expletive reflexive is an OBJ, it is incompatible with this construction.

3.5 Argument linking regularities

Finally, argument linking regularities, like (60) from Portuguese, show the reflexives to be direct objects: the reflexive blocks the possibility of realizing the theme argument *a viagem* 'the trip' as direct object. This alternation pattern also holds in other languages such as German (e.g. *fürchten* 'to fear').

(60) a. Lembrei-me   da viagem.
       remember.1SG.PAST-REFL.OBJ   of the trip
       'I remembered the trip.'

     b. Lembrei   a viagem.
       remember.1SG.PAST   the trip.OBJ
       'I remembered the trip.'

     c. *Lembrei-me   a viagem.
       remember.1SG.PAST-REFL.OBJ   the trip.OBJ

     This shows that the reflexive should be analyzed as an object.

4 LMT Analysis

In the following we sketch the mapping of the constructions under consideration. (61) shows the mapping pattern from LCS onto a-structure for typical transitive/causative verbs like *raser* 'shave' and *ouvrir* 'open'. According to LMT principles, the a-structure configuration <[-o] [-r]> maps onto <SUBJ OBJ> in f-structure.

(61)

LCS		agent	theme
a-structure	*raser/ouvrir*	< x	y >
	'shave/open'	[-o]	[-r]
f-structure		SUBJ	OBJ

4.1 Reflexive verbs

Taking into account LFG's binding principles, we assume the structure in (62) for reflexive verbs as *se raser* 'shave oneself' (cf. Kelling 2005). Binding principles predict the mapping of the theme argument onto a reflexive OBJ. Note that binding occurs on every level from LCS to f-structure.

(62)

LCS		agent$_i$	theme$_i$
a-structure	*se raser*	< x$_i$	y$_i$ >
	'shave oneself'	[-o]	[-r]
f-structure		SUBJ$_i$	OBJ$_i$= REFL

4.2 Decausative verbs

For decausative constructions, we assume the decausative operation in (63), which could also be argued to underlie the intransitive inchoative variant of a transitive causative verb like *to open*.

(63)   DECAUSATIVE OPERATION: agent → Ø

By means of (63) the agent argument is suppressed, and mapping principles ensure the mapping of the theme argument onto the SUBJ function. (64) shows the result of the application of this rule on transitive *open*. While in English the same verb stem is used in both variants, the decausative operation may be associated with a special morphological marking in languages like Modern Greek and Hebrew (Haspelmath 1993).

(64) LCS   theme
      a-structure   *open*   (intr.) $< y>$
                                     [-r]
      f-structure   SUBJ

However, unlike English and languages such as Modern Greek and Hebrew that code the operation morphologically, in German (and also Norwegian, cf. Dalrymple 1993:30-31) as well as in Romance, the [-r] feature associated with the least prominent argument of the causative verb variant remains at a-structure in form of a non-thematic (expletive) argument bound to the most prominent argument. As a consequence, this non-thematic argument must be realized as a reflexive OBJ, as is shown in (65).[6]

(65) LCS $theme_i$
      a-structure   *s'ouvrir* $< y_i >$ $\_\, i$
                     'open'   [-r]   [-r]
      f-structure $SUBJ_i$ $OBJ_i = REFL_{EXPL}$

The [-r] feature refers to an unrestricted syntactic function, the kind of function which is not restricted as to its semantic role in the sense that it need not have any semantic role at all, that is, it can be an expletive (non-thematic argument), as for the italicized subject and object of (66) and (67), respectively (Bresnan 2001:308).

(66)   *It* is obvious that the world is flat.
(67)   I take *it* that the world is flat.   (Falk 2001:107)

In the LFG literature, expletive subjects and expletive objects are considered to exist also in German (e.g. Butt et al. 1999:77, Berman 2003:64-67), cf. (68) and (69).

(68)   ... weil   es   keine   Hoffnung   gibt.
        because   it   no   hope   gives
        '... because there is no hope.'   (Berman 2003:67)
(69)   Sie hat es eilig.
        she has it quickly
        'She's in a hurry.'   (Berman 2003:64, FN 18)

Expletives are represented outside the angled brackets in which the verb's thematic arguments are listed, cf. the valency frame '<OBJ> SUBJ' for *geben* 'there to be' in (68), and '<SUBJ> OBJ' for *eilig haben* 'be in a hurry' in (69) (Berman 2003:67).

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[6] Two anonymous reviewers have remarked that (65) represents a violation of the so called Asymmetrical Object Parameter – AOP (Bresnan 2001:310, Falk 2001:114), which prohibits the configuration <… [-r] … [-r] …>. In fact, German and Romance languages are not symmetrical object languages, where the configuration <… [-r] … [-r] …> is licensed. With Bresnan (2001:310), we interpret the AOP, though, as a constraint on the mapping from LCS onto a-structure, not as a constraint on a-structures per se. Hence (65) does not fall under the AOP constraint.

Note that in (65) there is no semantic correlate to the OBJ in LCS. As observed by Steinbach (2002), this accounts for certain syntactic effects in German such as the asymmetry between (70) and (71), which was for a long time mistakenly regarded as evidence in favor of the intransitivity hypothesis (e.g. Helbig and Buscha 1991):

(70) *Sich öffnet die Tür.
      REFL   opens   the door
(71) Sich   rasiert er.
      REFL   shaves he

From (65), one can predict that the non-thematic syntactic argument may be, at least in principle, suppressed, since it is negatively specified (Bresnan 2001:310). This prediction is borne out by data from Brazilian Portuguese (BP), where the expletive reflexive OBJ may be deleted in some dialects (cf. Monteiro 1994, Camacho 2003), as shown in (72).

(72) a.   A porta abriu-   se.   (European Portuguese/Standard BP)
             the door opened   REFL
      b.   A porta abriu.   (Nonstandard BP)
             the door opened

The suppression of the non-thematic [-r] argument produces the argument structure (73), which is identical to that of English decausative verbs (cf. (64)).

(73) LCS   theme
      a-structure   *abrir* (intr.)   <y>
                       'open'   [-r]
      f-structure   SUBJ

4.3   Intrinsic reflexive verbs

Intrinsic reflexive verbs are assigned either the a-structure <[-o]>[-r] or <[-r]>[-r], where the [-r] argument outside the angled brackets maps onto the expletive OBJ.

The a-structure <[-o]>[-r] is exemplified by verbs like French *se désister* 'to desist', German *sich beschweren* 'to complain', or Portuguese *queixar-se* 'to complain', cf. (74).

(74) LCS   agent$_i$
      a-structure   *queixar-se*   <x$_i$>   _ $_i$
                       'to complain'   [-o]   [-r]
      f-structure   SUBJ$_i$ OBJ$_i$= REFL$_{EXPL}$

As expected from this feature configuration, these verbs behave like unergatives (cf. Zaenen 1993):

(75) a.   *a   mulher   dançada   (Portuguese)
             the   woman   danced.PART.FEM
      b.   *a mulher   queixada   (Portuguese)
             the woman   complained.PART.FEM

The a-structure <[-r]>[-r] is exemplified by verbs like French *s'évanouir* 'to faint', German *sich verlieben* 'to fall in love', or Portuguese *arrepender-se* 'to repent', cf. (76).

(76) LCS   theme$_i$
      a-structure   *arrepender-se* $<y_i>$ _ $_i$
                         'to repent'   [-r]   [-r]
      f-structure   SUBJ$_i$ OBJ$_i$= REFL$_{EXPL}$

These verbs are thus correctly predicted to behave like unaccusatives:

(77) a.   a mulher   desaparecida   (Portuguese)
            the woman   disappeared.PART.FEM
            'the missing woman'
      b.   a mulher   arrependida   (Portuguese)
            the woman   repented.PART.FEM
            'the repentant woman'

In this way, intrinsic reflexive verbs, even though they constitute semantically one-place predicates, are syntactically transitive verbs similar to either reflexive verbs (cf. (62)), or decausative verbs (cf. (65)). Parallel to the decausative construction, co-indexing appears only on the a-structure and f-structure levels. However, in contrast to decausatives, there is no derivational relationship to a causative transitive verb.

4.4   Summary

We have analyzed all reflexive constructions as syntactically transitive. Consequently, the reflexive never functions as a detransitivity marker. While reflexive verbs are semantically transitive, decausative reflexive verbs and intrinsic reflexive verbs are semantically intransitive. In this case, the reflexive is an expletive OBJ. In decausatives, this non-thematic syntactic argument can be seen as a marker of decausativization. German and Romance contrast, in this way, with languages like Modern Greek and Hebrew, on the one hand, and English, on the other, where decausativization is not syntactically marked by an expletive reflexive, but it is either morphologically marked or not marked at all on the verb.

5   Conclusion

In this paper, we have discussed the argument status of the reflexive in reflexive constructions, focusing on German and Romance reflexive verbs, decausative reflexives, and intrinsic reflexives. We have argued that in these constructions, the reflexive is best analyzed as a direct object. We have shown that the main arguments in favor of the intransitivity hypothesis do not hold. In particular, we have shown that the asymmetry between reflexive verbs and non-reflexive transitive verbs in French causative constructions, which for at least three decades was taken as evidence for the intransitive status of reflexive constructions, can be explained consistently as a result of binding and linking constraints without invoking intransitivity. We have shown that the arguments in the literature in favor of the transitivity hypothesis in German can be extended to the Romance languages, and we have presented additional evidence favoring the transitivity hypothesis. In the last part of the paper, we analyzed the reflexive constructions within the LMT formalism, explaining not only why reflexives behave like direct objects, but also why some reflexive verbs pattern with unergatives, while others are similar in behavior to unaccusatives. The syntactic and interpretational properties of reflexive verbs can only be accounted for if a distinction is drawn between syntactic valency and syntactic/semantic argument structure, as is the case in LFG/LMT.

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