

Self-improvement

How reflexivity evolved in the Indo-European languages

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Chapter 1

Introduction

It is often noted that a number of the contemporary Indo-European languages uses a word or morpheme beginning with an *s*- (French *se*, Italian *si*, German *sich*, Icelandic *sig/-st*, Russian *sebjá/sja/-s'*) in situations that involve reflexivity. Some older members of the Indo-European language family also had this *s*-form (Latin *se*, Old Norse *sik/-sk*, Old Church Slavonic *sebe/se*). Based on the striking similarities between these *s*-forms in the various Indo-European languages it has been assumed that there is a Indo-European **se-* stem that goes back to Proto-Indo-European itself (see Puddu 2005). This means that all present and past *s*-forms in the Indo-European languages are ultimately derived from the same source. A simplified overview of the development of the forms can be seen in (1), see (Kemmer 1993) and (Puddu 2005). Throughout the paper the term *SE* will be used to refer to the *s*-form in general, while the term *SE-token* will be used to refer to a specific instance of SE: *se* is the French SE-token, *si* is the Italian SE-token, etc. Besides the many similarities between the SE-forms in the various languages, there are also great differences. Because historically these forms all started out as one, the differences must be developments that happened over time.

(1)

Pre-historic languages	Historic languages	Modern languages
Proto-Indo-European <i>*se-</i>	Old Norse <i>sik</i> <i>-sk</i>	Icelandic <i>sig</i> <i>-st</i>
		Danish <i>sig</i> <i>-s</i>
		German <i>sich</i>
	Old Church Slavonic <i>sebe</i> <i>se</i>	Russian <i>sebjá</i> <i>-sja/-s'</i>
		Polish <i>siebie</i> <i>się</i>
		Slovene <i>sebe</i> <i>se</i>
	Latin <i>se</i>	Italian <i>sè</i> <i>si</i>
		Spanish <i>si</i> <i>se</i>
		French <i>soi</i> <i>se</i>

Let us look at the SE-tokens in two languages, *sich* in German and *–st* in Icelandic, to get an idea of what the variation in SE-tokens looks like. As can be seen in (2), German *sich* behaves on a par with a personal pronoun. In this sentence SE is embedded in a coordination structure, and the elements of a coordination are supposed to be of equal standing.

- (2) Er hat mich und sich belogen.
 he has me und SE lie.to
 ‘He lied to me and to himself’

The Icelandic SE-token *-st*, on the other hand, is much different. In many languages there is a construction called the Accusativus-cum-Infinitivo (AcI) in which the object (the *Accusativus*) of the matrix verb has a predicate of its own, a secondary predicate (the *Infinitivus*). In (3a) the matrix verb is a form of *telja* ‘to believe’, the accusative object is *mig* ‘me’, and the secondary predicate is *vera sterkan* ‘to be strong’. Interestingly, the adjective *sterkan* ‘strong’ agrees with the object *mig* and therefore also takes accusative case, which is typical of AcI-constructions (Reinhart & Siloni 2004).

- (3) a. Hann tel-ur mig vera .
 he(NOM) believe-3S me(ACC) be
 sterkan
 strong(ACC)
 ‘He believes me to be strong.’
- b. Hann tel-st vera sterkur.
 he(NOM) believes-SE be strong(NOM)
 ‘He believes himself to be strong.’

However with the SE-token *-st* the situation is rather different (3b). Here the adjective *sterkur* agrees with the subject *hann* and takes nominative. This suggests that *-st* is not a pronoun. If it were a pronoun it could not be nominative in that position, compare (4) with (3a-b).

- (4) *Hann tel-ur ég vera sterk-ur.
 he(NOM) believe-3S I(NOM) be strong-NOM)

This means that if *-st* were a pronoun, it should be non-nominative. However if it were a non-nominative pronoun, *sterkur* ‘strong’ in

(3b) could not be nominative, because the adjective should have to agree with this pronoun. However, *sterkur* in (3b) is nominative and therefore *-st* is not a pronoun. Instead, it looks more like an element of the verbal morphology: it even replaces the person and number agreement that is obligatory for the Icelandic verb under normal circumstances. As a verbal element it seems to change the behavior of the verb. Without *-st* an Icelandic verb cannot have a secondary predicate in the nominative, see (5). This suggests that Icelandic *-st* is really connected to the verb.

- (5) *Hann tel-ur vera sterk-ur.
 he(NOM) believe-3S be strong-NOM

In sum, there are SE-tokens like German *sich* in (2) that equal personal pronouns, and there are SE-forms like Icelandic *-st* in (3b) that are more like verbal morphology. In the first case SE is what is usually called an anaphor, a pronominal element and therefore a noun phrase (NP) in its own right that serves as the argument of a predicate. In the second case SE is a part of the verb and is used to mark a special use of the verb.

The existence of these two patterns poses all sorts of questions. First of all, which SE-tokens are verbal markers and which SE-forms are anaphors? Can one language have both types? If so, how is the anaphoric SE different in its behavior from verbal marker SE? And perhaps bigger questions should also be considered. Can anaphoric SE change into verbal marker SE (and vice versa) and why does this happen? Why do those two types exist in the first place? Furthermore there is the issue of SE-tokens that are in-between verbal markers and anaphors. Take for example the sentence in (6a). Is the French SE-token *se* here a verbal marker or an anaphor? On the one hand, it cannot be placed in a coordination structure like German *sich* in (2), see (6b). So perhaps this SE-token is not really anaphoric.

- (6) a. Jean se voit dans le miroir.
 John SE sees in the mirror
 ‘John sees himself in the mirror.’
- b. *Jean se et me voit dans le miroir.
 John SE and me sees in the mirror

On the other hand, *se* in (6a) is not a part of the verbal inflectional system either. Therefore, this particular SE-token is probably not a verbal marker either. But if it is neither an anaphor, nor a verbal marker, then what is it? These and other questions will be investigated in the remainder of this thesis.

Apparently, there is some variation among the SE-forms in the Indo-European languages. There are two ways one can account for this variation. One way is to take a broader, typological perspective, encompassing all the world’s languages. Under such a typological perspective we would explain SE’s variation by relating it to other typological parameters, word order for example. However, I do not see what typological parameters could be used for an explanation in this case. Therefore I think that the second way, taking a diachronic perspective, will be more useful. This perspective will be followed in this thesis, and consequently the data will be limited to the Indo-European languages, because comparative linguistics beyond that point will be too speculative.

In the following three chapters – chapter 2, 3 and 4 – I will list the main dimensions of variation for SE, in order to get a clear picture of the data we need to explain. The three dimensions are:

- i. the function SE has in a predicate
- ii. the level of embedding of SE relative to its antecedent
- iii. the morphological form of SE

In chapter 2 I will examine the first dimension, SE’s functions, which can be seen as the range of interpretations that occur with the use of SE. As stated above, traditionally SE-tokens have been

analyzed as reflexive elements. Yet, reflexivity is not the only meaning a SE-type may introduce to a sentence. Other meanings are, for example, reciprocity and the passive voice. In chapter 3 the second dimension will be investigated, the embedding of SE relative to its antecedent, concerns the distance between the structural positions of SE and its antecedent. From the literature it is clear that there are many differences between *local SE*, SE-tokens that are not embedded with respect to the predicate of SE's antecedent, and *long-distance SE*, SE-tokens that are embedded. Beside these two types, I will also consider *ECM SE*, a somewhat intermediate type. Chapter 4, finally, deals with the form of SE, that is the morphosyntactic features of SE. A SE-token can be a pronoun, a clitic, or an affix, and each of these morphological forms has consequences for the usage of SE.

Furthermore, in chapter 5 I will present previous approaches that have tried to explain the data, and with each approach I will show its strengths and weaknesses. In chapter 6, I will present a diachronic perspective on the matter, a perspective that in my view provides the best results in explaining the data. Chapter 7, finally, will be the conclusion of this thesis.

Chapter 2

SE-forms

In almost every case, the use of SE brings an extra meaning to a sentence that would not be there if SE had not been used. Consider the two French sentences below:

- (7) a. Jean et Pierre se détestent.
John and Pete SE detest
'John and Pete detest each other.'
- b. Jean et Pierre me détestent.
John and Pete me detest
'John and Pete detest me.'

Sentence (7a) is a sentence with a predicate that contains SE. In this case the SE-token most naturally introduces a reciprocity meaning to the predicate. That this meaning is indeed introduced by SE follows from (7b). In (7b) there is no SE: (7b) is the SE-less counterpart of (7a). In addition, there is also no reciprocity meaning in (7b). These observations suggest that the reciprocity meaning in (7) resides in the insertion of SE into the predicate. To sum up, a SE-token may add some special meaning like reciprocity to a sentence. For now I will remain agnostic to the question whether SE is itself the locus where the reciprocity meaning resides, or only serves as a marker of this meaning. A term like *reciprocal SE* should therefore be interpreted as 'a SE-token that co-occurs with a reciprocal meaning for a predicate'.

Reciprocity is however not the only meaning that SE can bring to a predicate. Other types that have been identified in the literature are: *reflexivity* (of which we have already seen some examples), *inherent reflexivity*, *anticausativity*, *middle meaning*, and *passive meaning*. This classification of functions is important, because, as we will see, the distinction between anaphor and verbal marker SE interacts strongly with this classification. Below I will discuss the six SE-interpretations and how they are to be defined. Exact definitions are needed in order to arrive at the correct classification of SE-functions.

2.1 Reflexive and Inherent SE

The first two SE-functions that are to be discussed are reflexive and inherent (reflexive) SE. Many scholars (Wehrli 1984, Dobrovie-Sorin 2005, Steinbach 2002) distinguish between reflexive and inherent SE, although both interpretations could be considered reflexive in meaning. Consider the following examples of reflexive SE (8a) and inherent SE (8b) from German.

- (8) a. Johan streichelt sich.
 John strokes SE
 ‘John strokes himself.’
- b. Johan setzt sich.
 John seats SE
 ‘John sits down.’

But why should we distinguish between these two sentences? Sentence (8a) should be considered reflexive in meaning, because the subject *Johan* is both the one doing the stroking and the one being stroked. In addition, sentence (8b) may also be considered reflexive when its literal meaning is considered. Literally the sentence means ‘John seats himself’, and if one would view the act of sitting down as an act of sitting oneself down, sentence (8b) may be considered reflexive.

One reason to assume that there is distinction between the two, however, is that in a number of languages the two interpretations are expressed by different SE-forms. Consider the Dutch examples of reflexive SE (9a-b) and Inherent SE (10a-b) below. Dutch uses *zichzelf* for the reflexive SE-interpretation and *zich* for the inherent SE-interpretation (see Everaert 1986):

- (9) a. Jan kuste zich-zelf.
 John kissed SE-self
 ‘John kissed himself.’
- b. Jan beloonde zich-zelf.
 John rewarded SE-self
 ‘John rewards himself.’
- (10) a. Jan mat zich met de kampioen.
 John measured SE with the champion
 ‘John measured himself with the champion.’
- b. Jan spoedde zich naar het station.
 John sped SE to the station
 ‘John rushed to the station.’

Usually the defining characteristic of inherent SE is taken to lie in the lack of a SE-less counterpart. This is why this function is often called inherent (or intrinsic) SE: the meaning of an inherent SE-predicate cannot be derived from a transitive verb, but is limited to the inherent SE-predicate. Sentences (11a-b) are the SE-less counterparts of reflexive SE examples (9a-b), and sentences (12a-b) are the SE-less counterparts of inherent SE examples (10a-b).

- (11) a. Jan kuste Piet.
 John kissed Pete

- b. Jan beloonde Piet.
John rewarded Pete
- (12) a. Jan mat Piet (*met de kampioen).
John measured Pete with the champion
- b. *Jan spoedde Piet (naar het station).
John sped Pete to the station

As the examples make clear, there is no difference in meaning for a verb whether it is combined with reflexive SE or a non-SE object. In other words, the act of *kussen* ‘kissing’ is similar whether one kisses oneself (9a) or somebody else (11a). With an Inherent SE-predicate the situation is different. The meaning of the verb *meten* ‘to measure’ is different when used in an Inherent SE-predicate (10a), or when used in a SE-less predicate (12a). The Inherent SE-construction *zich meten* ‘to measure oneself’ has the idiomatic meaning of ‘to take on somebody’, quite unlike its regular transitive counterpart *meten*, which means ‘to measure’. *Zich meten* even has a different argument structure than *meten*, because *zich meten* obligatorily takes a prepositional object headed by preposition *met* ‘with’, cf. (10a).

With the verb *spoeden* ‘to speed’ the difference between inherent SE (10b) and a non-SE object (12b) is even more apparent because a combination with a non-SE object is not grammatical. It is not possible to replace *zich* in (10b) with a full NP or pronoun. So because the counterpart is absent, one could say that here too, in a way, there is a difference of meaning between Inherent SE and its counterpart: inherent SE *zich spoeden* has a meaning and transitive *spoeden* does not have a meaning. To sum up, a verb does not change in meaning when it combines with reflexive SE, while in combination with inherent SE the meaning does change.

However, there are two problems with limiting Inherent SE to cases that have an idiomatic meaning, like (10a-b). The first problem is semantic status of the concept “idiomatic meaning”. This concept is semantically very different from the other SE-interpretations.

Reflexive, reciprocal, anticausative, middle and passive interpretations all involve the manipulation of the Agent and Theme theta-roles of a predicate. Inherent interpretations, on the other hand, are not defined by the manipulation of the theta-roles of its predicate. Consider the following sentence:

(13) John gave her a piece of his mind

The idiomatic expression in (13), *to give someone a piece of one's mind* means 'to give someone an angry speech about some misdoing'. Clearly, there is no change in theta-roles in (13) compared to a normal giving event.

Therefore, it may be better to separate the idiomatic meaning from the inherent SE-token itself. Languages usually do not have elements that signal an idiomatic meaning, while they do have elements that signal a reciprocal or passive interpretation. Instead, it is the combination of predicate and SE that is to be considered an idiomatic expression. Other objects also have the possibility to combine with a verb to form an idiomatic expression. Consider, for example, the idiomatic combinations of the English verb *to kiss* (see Horvath & Siloni):

(14) Idioms based on kiss+NP: kiss the canvas (in boxing: fall down), kiss the dust (fall down due to being shot/hit, be slain), kiss NP's ass (flatter somebody), (Imp form: curse), kiss the cup (drink), kiss the ground (admire, be grateful), kiss the rod (accept chastisement submissively), kiss something goodbye ((will) lose it).

When seen in this light, SE behaves just like other objects. In sum, the idiomatic nature of inherent SE cannot be its defining characteristic.

The second problem for the classification of inherent SE as discussed above is a set of verb called *grooming verbs*, which

express actions involving body care. Examples of Dutch grooming verbs with SE are in (15).

- (15) a. Jan waste zich.
John washed SE
'John washed.'
- b. Jan scheerde zich.
John shaved SE
'John shaved.'

These verbs can also take reflexive SE, but without a major shift in meaning:

- (16) a. Jan waste zich-zelf.
John washed SE-self
'John washed himself.'
- b. Jan scheerde zich-zelf.
John shaved SE-self
'John shaved himself.'

As can be seen from the English translations in (15a-b) and (16a-b), the difference between using *zich* or *zichzelf* with grooming verbs corresponds to the difference between *John washed* and *John washed himself* in English. The problem here is that grooming SE-verbs pattern with inherent SE-verbs because they can both take *zich*. On the other hand, grooming SE-verbs also seem to pattern with reflexive SE-verbs, because they can both take *zichzelf*. The behavior of the three verb types – reflexive, inherent and grooming SE-verbs – is summarized in (17). Inherent SE-verbs can only take *zich*, reflexive SE can only take *zichzelf*, and grooming SE can take either *zich* or *zichzelf*.

(17)

	Reflexive SE-verbs (<i>kussen</i> 'to kiss')	Grooming SE-verbs (<i>wassen</i> 'to wash')	Inherent SE-verbs (<i>haasten</i> 'to hurry')
<i>zich</i>	*		
<i>zichzelf</i>			*

The analysis portrayed in (17) led some to the conclusion that grooming SE-verbs are a class separate from both reflexive SE-verbs and inherent SE-verbs (Haeseryn e.a. 1997). This conclusion can however not be taken to mean that there exist a grooming SE, i.e. a SE with a grooming meaning. Grooming does not involve the manipulation of theta-roles, so grooming cannot be a function of SE (cf. the discussion on inherent SE above).

Everaert (1986), on the other hand, argues that grooming SE-verbs are more like reflexive SE-verbs, because *zich wassen* 'to wash' resembles *zichzelf wassen* 'to wash oneself' semantically – see (15a) and (16a) – and *zichzelf wassen* is similar in construction to *zichzelf kussen* 'to kiss oneself'. However, the similarity in meaning between *zich wassen* and *zichzelf wassen* does not set grooming SE-verbs apart from inherent SE-verbs. In (18) the reflexive SE version of the inherent SE-predicate in (10a) can be found.

- (18) Jan mat zich-zelf.
John measured SE-self
'John measured himself.'

The only difference between *meten* 'to measure', the verb in (18), and a verb like *wassen* 'to wash' is that the meaning of *wassen* is rather similar in a reflexive SE-construction (16a) and an inherent SE-construction (15a). With *meten*, on the other hand, there is a difference in meaning between the reflexive SE-construction (18)

and the inherent SE-construction (10a), because of the idiomatic meaning of inherent SE *zich meten*. But, as we have seen above, this idiomatic meaning is not the defining characteristic of inherent SE. Therefore, this characteristic cannot be used to set inherent SE apart from other SE-interpretations. Perhaps grooming SE-verbs and inherent SE-verbs are not so different after all.

Apparently, there are no compelling reasons to distinguish between grooming SE and inherent SE. And indeed in many languages grooming verbs tend to pattern with inherent SE-verbs. Consider, for example, English, where grooming verbs (19a-b) pattern with other verbs with an inherent reflexive meaning (19c-d), in allowing an intransitive form with an inherent reflexive meaning. Such a meaning cannot be formed with every transitive verb (19e-f).

- (19) a. John washed.
 ≈ ‘John washed himself.’
 b. John shaved.
 ≈ ‘John shaved himself.’
 c. John rushed.
 ≈ ‘John rushed himself.’
 d. John stopped.
 ≈ ‘John stopped himself.’
 e. John pushed.
 ≠ ‘John pushed himself.’
 f. John kissed.
 ≠ ‘John kissed himself.’

In the light of the above observations it seems plausible to subsume the alleged Grooming SE-function under the Inherent SE-interpretation. The concept of grooming itself is best regarded as a special semantic category of verbs. As a consequence, a verb is no longer exclusively associated with reflexive SE, or exclusively associated with inherent SE: grooming verbs can be associated with both SE functions. This would suggest the following design for SE in Dutch:

(20)

	Reflexive SE-function (<i>zichzelf</i>)	Inherent SE-function (<i>zich</i>)
<i>spoeden</i> -type verbs	–	+
<i>meten</i> -type verbs	+	+ (idiomatic)
grooming verbs	+	+
other transitive verbs	+	–

This design is also compatible with other languages than Dutch. In Italian, for example, SE-form *si* can have additional functions like reciprocity (Rcp), anticausivity (AC), the middle (Mdl) and the passive (Psv); see the remainder of this chapter for details on these functions. So technically, *si* can have up to six possible functions when combined with a verb. This fits nicely into the matrix in (20):

(21)

	Rfl (<i>si</i>)	Inh (<i>si</i>)	Rcp (<i>si</i>)	AC (<i>si</i>)	Mdl (<i>si</i>)	Psv (<i>si</i>)
<i>spoeden</i> -type verbs	–	+	–	–	–	–
<i>meten</i> -type verbs	+	+ (idiomatic)	+	±	+	+
grooming verbs	+	+	+	–	+	+
other transitive verbs	+	–	+	±	+	+

In sum, it seems that inherent reflexivity may indeed be a function equal to the other functions of SE.

Haspelmath (2003) dubbed the Inherent SE-function *Grooming/Body motion*, but I will not follow this for two reasons.

First of all, the term “Grooming/Body motion” is a disjunctive term and therefore no well-suited to serve as the label of a coherent category. Secondly, there are predicates like *zich meten met* in (10a) that, if considered an instance of the category under discussion, would stretch the concept of body motion too much. Because of this I will stick to the name “Inherent SE” for the category under discussion.

But if neither an idiomatic nature nor the concepts of grooming and body motion are the defining characteristics of this interpretation, then what is? In other words, what sets inherent SE apart from reflexive SE? A topic on which there is much discussion in the literature is the argument structure of Inherent and Reflexive SE. Scholars have proposed transitive, unergative and unaccusative analyses for both types of SE-predicates (see Reinhart & Siloni 2004, 2005, de Alencar & Kelling 2005, Dobrovie-Sorin 2005, and Schäfer 2006 for discussion). The prominent syntactic and semantic features of the three constructions can be seen in (22).

(22)

	syntactic	semantic
transitive	1 subject, 1 object	1 Agent, 1 Theme
unergative	1 subject	1 Agent
unaccusative	1 subject (after object-to- subject-raising)	1 Theme

It is hard to decide which analysis is right, because tests that distinguish between the three constructions do not provide clear results. Yet, I like to propose that semantically reflexive SE-predicates are transitive, while Inherent SE-predicates are unergative. If Reflexive SE-predicates are transitive, they should have an object with a theta-role of its own. And if this object has a theta-role of its own, there should be a way to emphasize the object to highlight this role. There are several linguistic contexts in which

the object of a verb gets emphasized. Three of these contexts are: (i) modification by a quantifier, see (23a), where *alleen* ‘only’ is the quantifier; (ii) contrastive use, see (23b); and (iii) isolation, see (23c) where SE is a sentence in its own right.

- (23) a. Jan haat alleen zich-zelf.
John hates only SE-self
‘John hates himself only.’
- b. Jan haat Piet en Jan haat zich-zelf.
John hates Pete and John hates SE-self
‘John hates Pete and John hates himself.’
- c. Wie haat Jan? Zich-zelf.
whom hates John SE-self
‘Whom does John hate? Himself.’

These examples show that Reflexive SE-token *zichzelf* can be emphasized, which suggests that *zichzelf* has a theta-role of its own.

The same three contexts applied to Inherent SE give different results:

- (24) a. *Jan spoedt/wast alleen zich
John speeds/washes only SE
- b. *Jan spoedt/wast Piet en Jan spoedt/wast zich
John speeds/washes Pete and John speeds/washes SE
- c. *Wie spoedt/wast Jan? Zich.
who speeds/washes John SE

This suggests in turn that Inherent SE-token *zich* does not have a theta-role of its own. Because of this Inherent SE-predicates are probably not transitive. But if Inherent SE-predicates are intransitive,

are they unergative or unaccusative then? Semantically, these predicates pattern with unergative predicates in Dutch:

- (25) a. Jan probeerde zich te bukken.
 John tried SE to bend.over
 ‘John tried to bend over.’
- b. Jan probeerde te bukken.
 John tried to bend.over
 ‘John tried to bend over.’
- (26) a. Jan doucht zich om wakker te worden.
 John showers SE for awake to become
 ‘John showers to get awake.’
- b. Jan doucht om wakker te worden.
 John showers for awake to become
 ‘John showers to get awake.’

These sentences show that the subject of an inherent SE-predicate is probably an Agent thematically. Verbs like *proberen* ‘to try’ in (25a) and purpose clause like *om wakker te worden* ‘to get awake’ in (26a) are only compatible with Agent subjects. Additional evidence can be found in the existence of SE-less unergative near-equivalents for some Inherent SE-verbs, see (25b) and (26b).

Apparently, languages have two ways to express reflexivity. One way is a construction with two theta-roles, with the Theme role expressed by reflexive SE. The reflexivity meaning is then an epiphenomenon of the structure used:

- (27) Consequences of structure [NP V SE] where SE is reflexive
- i. The reflexive refers to the same entity as the NP
 - ii. Semantically this means that NP is both agent and theme of the predicate
 - iii. When agent and theme are the same entity, a reflexivity interpretation ensues

With inherent SE, on the other hand, the reflexivity interpretation cannot be deduced from the structure, since inherent SE does not have a theta-role. Therefore language users know in advance that the predicate has a reflexive interpretation, which means that the predicate is marked as such in the lexicon (cf. Reinhart & Reuland 1993). This explains why reflexive SE is a very productive function, while inherent SE is not. With reflexive SE the reflexivity interpretation is derived from the structure, and therefore every verb that can appear in this structure can have reflexive SE. With inherent SE the reflexivity interpretation is marked in the lexicon, which makes inherent SE non-productive by default.

To conclude, we have seen that languages distinguish between reflexive and inherent SE, and that this difference is probably due to a difference in argument structure. On semantic grounds I have given a transitive analysis to Reflexive SE-predicates and an unergative analysis to Inherent SE-predicates

2.2 Reciprocal SE

The basic notion of reciprocal SE is that person A does something to person B, and that person B does the same thing to person A, see (7a) repeated from above.

- (7) a. Jean et Pierre se détestent.
 John and Pete SE detest
 ‘John and Pete detest each other.’

There are however far more complex situations that reciprocals can express. But since these situations are generally covered by the same linguistic element, the exact semantics is of no concern here.

Intuitively, it is not very difficult to set reciprocal SE apart as a category of its own.

However, in some respects the discussion on reciprocal SE parallels the discussion of reflexive and inherent SE above. There are languages like French where SE can productively adjoin to every transitive verb to bring forth a reciprocal interpretation. On the other hand, there are languages like Norwegian, where SE can only elicit a reciprocal interpretation with a handful of verbs (Kemmer 1993). It can be argued that this is due to a difference in argument structure (see the discussion in Haspelmath 2007 and the contributions in König & Gast forthcoming). This would justify a split between reciprocal SE proper and inherent reciprocal SE, but I will not use this distinction here, because reciprocity will not be the main concern of this thesis

2.3 Anticausative SE

The concept of the anticausative interpretation is intuitively also quite clear. With this function it is expressed that something happens to some entity, without expressing that somebody made it happen. Compare the following two sentences:

- (28) a. Jan vulde het zwembad met water.
John filled the swimming.pool with water
- b. Het zwembad vulde zich met water.
the swimming.pool filled SE with water
'The swimming pool filled with water.'

In (28a) it is specified that John is the one filling the swimming pool, while in (28b) it is not specified who is doing the filling. In (28b) it

may also be the rain, for example, that is causing the filling. Note that the subject of anticausative SE has the same theta-role – a theme – as the object of its SE-less counterpart. This is the defining characteristic of anticausative SE: the only theta-role present is the role of theme.

Also, with the concept of idiomatic nature no longer being exclusive to inherent SE, there are instances of anticausative SE to be found that have an idiomatic nature:

- (29) a. Jan bevindt zich hier .
 John Prt.finds SE here
 ‘John is located here.’
- b. *Jan bevindt Piet hier
 John Prt.finds Pete hier

2.4 Middle SE

Middle SE, as in (30), is a construction used in some languages to express the so-called middle meaning (the term is used here in its narrow sense; other names are facilitative, medium, mediopassive or middle-passive).

- (30) Le grec se traduit facilement.
 the Greek SE translates easily
 ‘Greek translates easily.’

Characteristic of the middle meaning is the inherent property-relation that seems to hold between subject and predicate: the predicate functions as an inherent property of the subject. For example, (30) could also be paraphrased as ‘Greek is easy to translate’, or ‘Greek is easily translatable’. As a consequence middle SE usually co-occurs with a manner adverb like *facilement* ‘easily’ that modifies the

degree to which a predicate is applicable, such as the “translatability” in (30).

The subject of middle SE is clearly a theme, and this raises the question if middle SE is an interpretation in its own right. Because (31b) can be considered a special case of (31a), with the property reading elicited by the adverb, middle SE might be considered a special case of anticausative SE, see (32a) and (32b).

- (31) a. John laughs at the moment
 b. John laughs easily
- (32) a. Die Tür öffnet sich augenblicklich.
 the door opens SE momentarily
 ‘The door is opening at the moment.’
- b. Die Tür öffnet sich leicht.
 the door opens SE light
 ‘the door opens easily’

However, in a language a middle SE interpretation is usually possible with more verbs than the anticausative SE interpretation, cf. (33a) and (33b). Therefore it is by definition not possible that middle SE is a special case of anticausative SE, because the set of anticausative SE-verbs does not enclose the set of middle SE-verbs (see Steinbach 2002).

- (33) a. *Das Buch liest sich augenblicklich.
 the book reads SE momentarily
- b. Das Buch liest sich leicht.
 the book reads SE light
 ‘The book reads easily.’

With respect to the argument structure of Middle SE-predicates it is usually assumed that the Agent is equated to an undefined generic

group of referents ('people'), see Steinbach (2002) and Dobrovie-Sorin (2005).

2.5 Passive SE

The last SE-function discussed here is Passive SE, see example (34) below.

- (34) Les pommes se mangent en hiver.
 the apples SE eat in winter
 'Apples are eaten during winter.'

In Passive SE-constructions, as in Ergative and Middle SE-constructions, the Theme is in subject position. However, Passive SE implies the presence of an Agent syntactically. A way in which this presence can be made visible is shown in the following two sentences (Dobrovie-Sorin 2005):

- (35) a. *Les livres se vendent facilement pour aider les pauvres.
 the books SE sell easily for help the poor
- b. Les livres se vendent pour aider les pauvres.
 the books SE sell for help the poor
 'People sell the books to help the poor.'

Sentence (35a) has a middle SE interpretation, due to *facilement* 'easily', and therefore an agentive phrase like *pour aider les pauvres* 'in order to help the poor' is not possible, because a middle interpretation does not have a syntactically active Agent. Sentence (35b), on the other hand, has a passive SE interpretation since there is no adverb like *facilement* present. Because of this passive interpretation the agentive phrase is possible in (35b).

2.6 Summary

Below there is an overview of the argument structures connected to each of the six functions of SE that were addressed in this chapter:

(36)

	Agent	Theme
reflexive	+	+
reciprocal	+	±
inherent	+	–
anticausative	–	+
middle	generic	+
passive	+	+

In (37) there is an overview of the variation found in the languages with SE concerning SE's functions, based on typological research (Kemmer 1993, Puddu 2005).

(37)

	Rfl	Inh	Rcp	AC	Mdl	Psv
Latin <i>se</i>	+					
Old French <i>se</i>	+	+	+			
French <i>se</i>	+	+	+	+	+	+
Old Norse <i>sik</i>	+	+				
Old Norse <i>-sk</i>		+	+	+	+	+
Icelandic <i>sig</i>	+	+				
Icelandic <i>-st</i>		+	+	+	+	+
Danish <i>sig</i>	+	+		+		
Danish <i>-s</i>		+	+	+		+
Gothic	+	+	+	+		
German <i>sich</i>	+	+	+	+	+	
Dutch <i>zich</i>		+		+		
Old Church Slavonic <i>sebe</i>	+					
Old Church Slavonic <i>se</i>			+			
Russian <i>sebjja</i>	+					
Russian <i>-sja</i>		+	+	+	+	+

Chapter 3

Embedding SE

A second source of variation among SE-tokens is the structural position that SE may occupy relative to SE, its antecedent. What I mean by this is best illustrated by the construction in (38).

(38) NP_{antecedent} VP [... SE ...]

An antecedent of SE is usually the subject of some predicate (VP), and SE itself also has a position with respect to this predicate (and therefore with respect to its antecedent). For some SE-tokens this structural position must be a position that is not embedded into any other phrase:

(39) Jan verwondde zich.
John wounded SE
'John got hurt.'

In (39) SE-token *zich* and its antecedent *Jan* are both elements of the predicate formed around the verb *verwonden* ('to wound'). This usage of SE has been called local SE in the literature, see for example Chomsky (1981) and Reinhart & Reuland (1993) There are also languages in which in addition the SE-token can be in a predicate embedded inside the predicate of its antecedent. Icelandic is such a language (see Thráinsson 1991):

- (40) Jón_i segir [að María telji [að Haraldur vilji [að
 John says that Mary believes that Harold wants that
 Billi heimsæki sig_i]]]
 Bill visits SE
 ‘John_i says that Mary believes that Harold wants Bill to
 visit him_i’

In (40) SE-token *sig* is inside the predicate *að Billi heimsæki sig* ‘that Bill visits him’. This predicate is triple embedded with respect to the matrix predicate, which is where *Jón*, the antecedent of *sig*, occurs. This usage of SE has been called long-distance SE in the literature.

Furthermore there is special kind of embedding, which has characteristics of both local and long-distance SE:

- (41) a. Jan werkte [zich kapot]
 John worked SE broken
 ‘John worked himself to exhaustion’
- b. Jan liet [zich mee-voeren]
 John let SE along-transport
 ‘John let himself be carried along’

I will call this type of embedding ECM SE, because the mechanism called Exceptional Case Marking applies to SE in these constructions. Each of the three types of embedding will be discussed more extensively below.

3.1 Local SE

Most of the discussion on SE has focused on constructions with a *local* distance between SE and its antecedent. In its most common definition the distance is local if both SE and its antecedent belong to the same predicate, see for example Chomsky (1981). A good example of this situation, which is called *local SE*, is in (42). In (42)

both *se* and *Jean*, *se*'s antecedent, belong to the same predicate, *voire* 'to see'.

- (42) Jean *se* voit dans le miroir.
 John SE sees in the mirror
 'John sees himself in the mirror.'

In (42) *se* is not embedded with respect to the predicate, since there is no constituent in (42) that contains the predicate, but not the SE-token, or vice versa.

3.2 Long-distance SE

While with local SE the SE-form has to be part of the same predicate as its antecedent, SE is not by definition confined to the predicate of its antecedent. In some languages SE and its antecedent can be part of different predicates. In (40) there was an example of this so-called long-distance SE in Icelandic. As stated there, the term "long-distance SE" applies to a situation in which the antecedent of the SE-token is in a different predicate than the SE-token itself. In other words, with long-distance SE the SE-token has a predicate of its own. This predicate is referred to as the *embedded* predicate, because these predicates are typically embedded with respect to the predicate of SE's antecedent.

An important property of long-distance SE is the possibility to exchange the SE-token in the construction with an ordinary third person pronoun. So, for example, in the Icelandic example (40) the SE-token *sig* can be replaced by pronoun *hann* 'him':

- (43) Jón segir [að María telji [að Haraldur vilji [að
 John says that Mary believes that Harold wants that
 Billi heimsæki hann]]]
 Bill visits him
 ‘John says that Mary believes that Harold wants Bill to visit
 him.’

In (43) pronoun *hann* ‘him’ may refer to matrix subject *Jón*, and in that context the sentence is semantically interchangeable with (40). In local SE the SE-token may not be replaced by another pronoun without changing the sentence meaning:

- (44) a. Steven waste zich.
 Steven washed SE
 ‘Steven washed.’
 b. Steven waste hem.
 Steven washed him

In (44a), where a SE-token is used, Steven (the sentence subject) washes himself, and in (44b), where the pronoun *hem* ‘him’ is used, Steven washes somebody else. The two sentences cannot depict the same situation. This shows that local SE and long-distance are different in this respect.

It was stated above that with long-distance SE the SE-token has a predicate of its own. This statement is in fact rather complicated: when does SE have its own predicate, and when does it not? Dutch, for example cannot use its SE-token the way Icelandic did in (40), repeated below for convenience:

- (40) Jón segir [að María telji [að Haraldur vilji [að
 John says that Mary believes that Harold wants that
 Billi heimsæki sig]]
 Bill visits SE
 ‘John says that Mary believes that Harold wants Bill to visit
 him’ [him = John]
- (45) a. *Jan denkt [dat Marie zich haat]
 John thinks that Mary SE hates
- b. Jan denkt [dat Marie hem haat]
 John thinks that Mary him hates
 ‘John thinks Mary hates him.’

These examples show that in Dutch there can be no long-distance SE if SE’s own predicate is a subordinate clause (45a). This construction is however perfectly possible with the pronoun *hem* ‘him’, see (45b). On the other hand, non-local SE is possible in the following construction:

- (46) a. Jan laat [Piet voor zich werk-en]
 John let Pete for SE work-Inf
 ‘John let Pete work for him.’ [John = him]
- b. Jan laat [Piet voor hem werk-en]
 John let Pete for hem work-Inf
 ‘John let Pete work for him.’

In (46a-b) SE’s own predicate is formed by an infinitive verb in an Exceptional Case Marking-construction, instead of the finite verb of (45a-b). Some scholars do not consider (46a) an instance of long-distance SE, instead calling it middle-distance SE (see for example Everaert 1986), while restricting the term “long-distance SE” to cases like (40). As a consequence, Dutch would not have long-

distance SE, since (45a) is ungrammatical. Let us call this hypothesis the *middle-distance hypothesis*.

A first observation is that there are no syntactic or semantic reasons to distinguish between long-distance and middle-distance SE. In both cases SE has its own predicate, and in both cases SE can be replaced by an ordinary third person pronoun, cf. (46b) with (43). This leaves only a typological reason for distinguishing between the two: not every language that allows middle-distance SE allows Long-distance SE. Crucially, the middle-distance hypothesis would suggest the following model of languages:

(47)

	Icelandic-like languages	Dutch-like languages
Long-distance SE	+	–
Middle-distance SE	+	+
Local SE	+	+

As illustrated in (47), the SE-languages would be split into two groups: Icelandic-like and Dutch-like language. In Icelandic-like languages SE would appear if it is not embedded (local SE), or if its embedded predicate is either a non-finite (middle-distance SE) or a finite clause (long-distance SE). In Dutch-like languages, on the other hand, SE would only appear if its predicate is not embedded (local SE) or if its predicate is an embedded non-finite clause (middle-distance SE).

However, the reality is much more complex. Menuzzi (1999) shows that SE-languages not only differ in their acceptance of finite clause predicates as a possible embedded phrase for SE, but also in their acceptance of a number of other types of embedding:

(48) Menuzzi's (1999) Hierarchy for SE

VP > PP > LOC > ECM > NP, AP, NPS > CTRL > PR > SBJ > IND

(VP = no embedding; PP = argument adpositional phrase; LOC = locative adposition phrase; ECM = infinitive with Exceptional Case Marking; NP = subjectless noun phrase; AP = small clause with adjective phrase; NPS = noun phrase with subject; CTRL = infinitive phrase with controlled subject; PR = relative clause; SBJ = subjunctive finite clause; IND = indicative finite clause)

The cline in (48) should be read as follows: if a SE-form in a language is able to occur inside a certain type of embedded phrases on the cline, the SE-form should also be able to occur inside the types of embedded phrase to the left of it. In Norwegian, for example, control infinitive clauses (like *to come* in *I promised him to come*) are possible embedded phrases for SE, and thus are the phrases to the left of CTRL in (48). This separates Norwegian from Dutch, in which control infinitive clauses are not possible as embedded phrase for SE. Norwegian is also different from Icelandic, because it does not allow finite clauses as an embedded phrase for SE. In a similar fashion most other SE-languages also differ from both Dutch and Icelandic. Because of this the middle-distance hypothesis, as portrayed in (47), does not hold. Instead it seems that long-distance SE is in fact possible in most SE-languages, but that there is variation concerning the types of phrases that a language allows for long-distance SE. The cline in (48) can be regarded as a continuum of structures ranging from not complex (left) to very complex (right). Local SE is called VP in (48) and it can be seen as the least complex embedded phrases, since with local SE, the SE-token is the embedded phrase itself:

- (49) Jan vergiste [zich]
 John erred SE
 'John had it wrong.'

Nevertheless, middle-distance SE can still be an appropriate term to refer to SE embedded in the less complex structures of (48).

3.3 Exceptional Case marking SE

The cline in (48) suggests that every occurrence of SE should be either local SE – VP in (48) – or long-distance SE – everything to the right of VP in (48). There is however a third type of SE-embedding, Exceptional Case Marking (ECM) SE, which is somewhat in between local and long-distance SE. Evidence for this will follow below. Examples of ECM SE are in (41), repeated from above.

- (41) a. Jan werkte [zich kapot]
 John worked SE broken
 ‘John worked himself to exhaustion’
- b. Jan liet [zich mee-voeren]
 John let SE along-transport
 ‘John let himself be carried along’

I gave these occurrences of SE the name of ECM SE, because they all involve a mechanism called Exceptional Case Marking. This mechanism can be illustrated by the following examples:

- (50) a. John heard the cook
 b. John heard the cook butcher the chicken
 c. John heard how the cook butchered the chicken

Example (50a) is just a simple predicate with the verb *to hear*. In (50a) *the cook* is the Theme of the sentence predicate. In this sentence it is expressed that John heard sounds produced by the cook. Example (50b), the ECM example, seems to be very similar to (50a), but there are striking differences. In order for (50b) to be true, it does not have to be the cook that produces the sounds John hears. The

sentence is also true if John only hears the chicken making noises. This means that in (50b) *the cook* is not the Theme of the predicate *to hear*. Instead it looks like *the cook butcher the chicken* as a whole is the Theme. In this respect (50b) is more like (50c) in which the Theme is a finite clause in itself (note that (50a) can also have the meaning that John heard the news from someone else, which is irrelevant here). Yet, if *the cook* does not get its theta-role from *to hear* in (50b), then where does it get its theta-role from? A plausible answer is that it gets an Agent theta-role from the verb *to butcher*. In other words, John is the subject of the matrix predicate and *the cook* is the subject of the embedded predicate.

What does this mean for ECM SE? I will define ECM SE as an ECM construction in which the *subject* of the embedded predicate is a SE-token, see (41a-b). Interestingly, ECM SE resembles long-distance SE, because with both types of SE-embedding the SE-token gets its theta-role from the embedded predicate. Compare the following two Dutch examples:

- (51) a. Jan_i hoorde de kok over zich_i praten.
 John heard the cook over SE talk
 ‘John heard the cook talk about him.’
- b. Jan_i hoorde zich_i over de kok praten.
 John heard SE over the cook talk
 ‘John heard himself talk about the cook.’

In both sentences there is an embedded predicate headed by an Exceptional Case Marked NP, but in (51a) the SE-token is not the subject of the embedded predicate, which makes the SE-token long-distance SE. In (51b) the SE-token is the subject of the embedded predicate, which makes the SE-token ECM SE. Nevertheless, in both cases the SE-token gets its theta-role from the embedded predicate.

However, in other respects ECM SE is more like local SE. Let us first look at ECM raising constructions without SE (52b).

- (52) a. John heard him.
 b. John heard him slaughter her.

In (52b) the subject of the embedded predicate *him* is in the accusative, just like the object of the embedded predicate *her*. Pronoun *her* got its accusative case from the verb *to slaughter*; the object of *to slaughter* is always in the accusative:

- (53) He slaughtered her.

The subject of *to slaughter*, on the other hand, is not always in the accusative, as (53) shows: in (53) the subject is nominative. Pronoun *he* receives the nominative because the predicate contains a finite verb. Non-finite verbs cannot give case to their subjects:

- (54) a. *He slaughter her.
 b. *Him slaughter her.

The examples show that a non-finite verb-form like *slaughter* can give neither nominative case (54a), nor accusative case (54b) to its subject. But if non-finite verbs cannot provide their subjects with case, where does *him* in (52b) get its accusative case from? The answer is probably that it gets its accusative case from the verb *to hear*. This may seem strange at first hand, because - as we saw earlier - *him* does not get its theta-role from the verb *to hear*. This means that the subject of an embedded clause gets its theta-role from one predicate, and its case from another. Yet, this is common practice among subjects of any kind. Matrix subject *he* in (53) gets its theta-role from the predicate *to slaughter*, but it does not get its case from this predicate. If nominative case was provided by the predicate, then sentence (54a) should be grammatical as well. Instead, it seems that nominative case is made available by the fact that the predicate in (53) is finite, as stated above.

We can conclude from this that in ECM construction the embedded subject gets its case from the matrix predicate. This is

why the construction is also sometimes called Subject-to-Object raising: the embedded subject in a sentence receives the case associated with the object of the matrix predicate. For ECM SE this means that ECM SE resembles Local SE in this respect:

- (55) a. Jonas wusch sich.
 Jonah washed SE
 ‘Jonah washed (himself).’
- b. Jonas wusch sich sauber.
 Jonah washed SE clean
 ‘Jonah washed himself clean.’

In the Local SE example (55a) the SE-token clearly gets its accusative case from the matrix verb *waschen* ‘to wash’. Furthermore, also in the ECM SE example SE-token *sich* gets its case from matrix verb *waschen*. With Long-distance SE it does not work this way:

- (56) Produkt-manager lassen Kunden für sich arbeiten.
 Product-managers let clients for SE work
 ‘Product Managers let clients work for them.’

In this example SE-token *sich* clearly does not get its case from matrix predicate *lassen* ‘to let’. This sets long-distance SE apart from both local and ECM SE.

To sum up, it can be shown that ECM SE behaves like long-distance SE in some respects, and like local SE in others. In (57) the differences and similarities between the three SE-distances are summarized.

(57)

	Local SE	ECM SE	Long-distance SE
case	matrix	matrix	embedded
provided by	predicate	predicate	predicate
theta-role	matrix	embedded	embedded
provided by	predicate	predicate	predicate

How does the cline observed for long-distance SE in (48) relate to ECM SE? Let me first clarify that the term ECM in (48) does not mean ECM SE. Consider (51) again, repeated from above.

- (51) a. Jan hoorde de kok over zich praten.
 John heard the cook over SE talk
 ‘John heard the cook talk about him.’
- b. Jan hoorde zich over de kok praten.
 John heard SE over the cook talk
 ‘John heard himself talk about the cook.’

ECM in (48) means that there is a SE-token present in an ECM construction but not as its subject (51a), while ECM SE the SE-token *is* the subject in an ECM construction (51b). Now let us get back to the relation between (48) and ECM SE. It is well-known that Exceptional Case Marking can only occur with elements that receive their case directly from the matrix verb. In a normal situation the Dutch verb *schoppen* ‘to kick’ can take either a direct object (58a) or a locational object with *tegen* ‘against’ (58b).

- (58) a. Jan schopte de bal.
John kicked the ball
- b. Jan schopte tegen de bal.
John kicked against the ball
'John kicked the ball.'

In an ECM construction on the other hand only the equivalent of a direct object is allowed:

- (59) a. Jan schopte de bal lek.
John kicked the ball flat
- b. *Jan schopte tegen de bal lek.
John kicked against the ball flat

It seems that the phenomenon in (59a-b) is connected to case assignment: an element can only be Exceptional Case Marked if it gets its case from the matrix verb. This shows that only for local SE – VP in (48) – an ECM-variant is allowed, since all non-local SE-tokens do not get their case from the matrix verb. In sum, ECM SE is an extra dimension that only exists for local SE.

3.4 Conclusion

There is a continuum regarding the complexity of the structure in which SE may be embedded relative to its antecedent. With local SE there is no embedding, while with long-distance SE the embedding ranges from not so complex to very complex, see (48). On top of that there is a variant of local SE that has Exceptional Case Marking, called ECM SE. These findings are summarized in (60).

(60)

	Local	Long-distance
-ECM	Local SE	less complex Long-distance SE
		...
		more complex Long-distance SE
+ECM	ECM SE	

The cross-linguistic variational pattern of SE-tokens with respect to embedding can be found in (61), see (Puđu 2005).

(61)

	Long- distance	ECM	Local
Latin <i>se</i>	+	+	+
Old French <i>se</i>		+	+
French <i>se</i>		+	+
Old Norse <i>sik</i>	+	+	+
Old Norse <i>-sk</i>		+	+
Icelandic <i>sig</i>	+	+	+
Icelandic <i>-st</i>		+	+
Danish <i>sig</i>	+	+	+
Danish <i>-s</i>			+
Gothic <i>sik</i>	+	+	+
German <i>sich</i>	+	+	+
Dutch <i>zich</i>	+	+	+
Old Church Slavonic <i>sebe</i>	+	+	+
Old Church Slavonic <i>se</i>		+	+
Russian <i>sebja</i>	+	+	+
Russian <i>-sja</i>		+	+

Chapter 4

SE-forms

The third aspect of SE that is relevant to addressing the variation of SE is SE's morphological form. Following Bresnan (2001) I will assume that there are four morphological categories available for SE. Bresnan studies the morphological form of pronominals, a term she uses in the broader sense. Under her definition, the term “pronominal” not only covers NPs, but also verbal affixes. If the term is used in this broader sense, all SE-tokens in the languages with SE can be considered pronominals, which means that Bresnan's categorization can be used to classify them. Therefore I will distinguish four morphological categories for SE based upon the four categories she distinguishes with respect to overt pronominals (Bresnan also considers a fifth category, the covert (zero) pronominal, but this category is not relevant here). These four categories are: strong SE, weak SE, clitic SE, and affix SE. Below I will examine the four forms in more detail.

4.1 Strong SE

Strong SE is the SE-form that is syntactically the most similar to non-pronoun NPs and personal pronouns. This similarity is most striking when these elements are in an environment of emphasis. A proper name can always bear emphasis, see for example the behavior of the German proper name *Felix* (62a-c). In (62a-c) there are three environments in which an element bears emphasis: modification by a

quantifier (62a); contrastive use (62b); and isolation (62c). Note that ‘to bear emphasis’ does not automatically mean ‘to bear sentence stress’, although elements can only bear sentence stress if they are able to bear emphasis.

- (62) a. Max hat nur Felix betrogen.
Max has only Felix deceived
‘Max deceived only Felix.’
- b. Max hat dich und Felix betrogen.
Max has you and Felix deceived
‘Max deceived you and Felix.’
- c. Wen hat Max betrogen? Felix!
Who has Max deceived Felix
‘Who did Max deceive? Felix!’

It can be seen here that a proper name like Felix is quite an autonomous element in a sentence. Yet, the German strong pronoun *sich* is also able to appear in the above three environments of emphasis:

- (63) a. Max hat nur sich betrogen.
Max has only SE deceived
‘Max deceived only himself.’
- b. Max hat dich und sich betrogen.
Max has you and SE deceived
‘Max deceived you and himself.’
- c. Wen hat Max betrogen? Sich!
Who has Max deceived SE
‘Who did Max deceive? Himself!’

The sentences in (63a-c) show that German *sich* is able to bear emphasis. Therefore, it can be concluded that strong SE is rather close to personal pronouns and non-pronominal NPs, in contrast to the other SE-forms, as we will see below.

4.2 Weak SE

Weak SE is a SE-form that cannot bear emphasis. This is what separates it from the Strong SE-Form. An example of Weak SE is Dutch *zich*. If *zich* is indeed a Weak SE-token, it could not be able to occur in environments that provide emphasis. This prediction is borne out: in the three environments from (62a-c) and (63a-b) in which the object must bear emphasis, the objects cannot be replaced by *zich* (examples repeated from above):

- (64) a. *Jan wast alleen zich.
John washes only SE
- b. *Jan wast Piet en Jan wast zich.
John washes Pete and John washes SE
- c. *Wie wast Jan? Zich.
whom washes John SE

However, when the environment does not require emphasis, *zich* can be used. When *zich* is used, it always appears in the position where a pronoun would have occurred:

- (65) a. Ik zag hoe Jan hem een drankje in-schonk.
I saw how John him a drink in-poured
'I saw how John poured him a drink.'

- b. Ik zag hoe Jan zich een drankje in-schonk.
 I saw how John SE a drink in-poured
 ‘I saw how John poured himself a drink.’

This suggests that strong SE and weak SE only differ minimally: their single difference is the ability to bear stress.

4.3 Clitic SE

I will use the term clitic in the narrow sense here. In this narrow sense, a clitic is an element whose syntactic position is different from that of a full NP. In short this means that a SE-token and a full NP occupy different positions in a sentence. In French, for example, a full NP object occupies a preverbal position, and a clitic occupies a postverbal position:

- (66) a. Max lave Jean
 Max washes John
- b. Max le lave
 Max him washes
 ‘Max washes him.’
- c. Max se lave
 Max SE washes
 ‘Max washes (himself).’

In (66a) *Jean* is a full NP and is located to the right of the verb; *le* in (66b) is a clitic and is located to the left of the verb. Example (66c) shows that the French SE-token *se* resembles the behavior of *le*, which means that *se* is probably a clitic.

Zwicky (1977) uses the term "clitic" in a broader sense. His definition also includes weak elements, which he dubs *simple clitics*. Clitics in the narrow sense he refers to as *special clitics*. I will not

use these terms here, because I think the paradigm “strong/simple clitic/special clitic” would suggest that the second form is more similar to the third form than to the first form, contrary to fact. Therefore, I will stick to the paradigm “strong/weak/clitic” in this thesis. Nevertheless, clitic SE resembles weak SE in that it is also not able to bear emphasis:

- (67) a. *Jean ne lave que se.
John not washes than SE
- b. *Jean se et le lave.
John SE and him washes
- c. *Qui a Jean lavé? Se.
who has John washed SE

However, not being able to bear emphasis is not only true of clitic and weak forms; it is true of affixes as well. This means that not being able to bear emphasis is a characteristic of all non-strong forms.

4.4 Affix SE

An affix is a bound morpheme that is attached to another word. For affix SE this other word is always a verb. A main difference between clitic SE and affix SE is that affix SE always attaches to the main verb itself (McGinnis 1999):

- (68) a. Einhver hefur stundum klæð-st.
someone has sometimes dressed-SE
‘Sometimes, someone has dressed himself.’

- b. *Quelqu'un s' est habillé.*
 somebody SE is dressed
 'Someone has dressed himself.'

In Icelandic there is an affix SE-token *-st* and in (68a) it attaches to main verb form *klæð-* 'dressed' and not to perfect auxiliary *hefur* 'has'. In French there is a clitic SE-token and in (68b) it attaches to perfect auxiliary *est* 'is' and not to main verb form *habillé* 'dressed'.

4.5 Conclusion

SE can have one of four forms: strong, weak, clitic and affix. The forms differ in their degree of autonomy. Strong SE is the most autonomous and Affix SE is the least autonomous form. In (69) there is an overview of the cross-linguistic variation of SE's forms (see Kemmer 1993, Puddu 2005). As we will see in chapter 6, it is possible for a particular SE-token to have both a strong and a non-strong form. The reason for this is that in some of the SE-functions it is prohibited to emphasize SE. Therefore it can be that a language may emphasize a particular SE-token in some of its functions, but not in others

(69)

	Strong	Weak	Clitic	Affix
Latin <i>se</i>	+			
Old French <i>se</i>			+	
French <i>se</i>			+	
Old Norse <i>sik</i>	+	+		
Old Norse <i>-st</i>				+
Icelandic <i>sig</i>	+	+		
Icelandic <i>-st</i>				+
Danish <i>sig</i>		+		
Danish <i>-s</i>				+
Gothic	+	+		
German <i>sich</i>	+	+		
Dutch <i>zich</i>		+		
Old Church Slavonic <i>sebe</i>	+			
Old Church Slavonic <i>se</i>			+	
Russian <i>sebjja</i>	+			
Russian <i>-sja</i>				+

Chapter 5

Previous approaches

In the previous chapters we have seen the variation of SE-tokens on three dimensions: SE's functions, SE's type of embedding and SE's form. Naturally, this variation is only optional: not every language that has SE has all the variation that is possible on the three dimensions. German, for example, does not have passive SE, whereas French does have it. Examples like these show that languages differ in the variation they allow. This was shown for the variation in SE-interpretations in (37), for the variation in SE-embedding in (61) and for the variation in SE-forms in (69).

SE has been a very popular subject in linguistic research for the last decades, so there have been many scholars who proposed an approach that models the variation in one or more languages that have SE. In this chapter I will evaluate a number of these approaches, in order to find out more about the ingredients of approaches to SE and its variation. There are two points on which I will compare approaches. These are the points that I consider most central to modeling SE's variation. The first point is the *argument status* of SE. This concerns the questions whether SE has a theta-role or not. The second point is SE's *functional classification*. SE has a number of functions (reflexive, passive, etc.) which may be related in a certain fashion. So the question is, what is the proper way to classify SE's functions, if any? I will address both points in turn below.

Finally, I would like to stress that some of the approaches I examine are only intended to cover SE-forms in one language, or one

language family. Nevertheless, I will consider if such approaches can be extended to cover all languages that have SE.

5.1 SE's argument status

Approaches to SE differ regarding SE's argument status. This difference of opinion concerns the question: "When does SE have a theta-role, and when does it not have one?" The first approach I will consider is Chomsky (1981), which is probably the best-known approach. It only covers reflexive SE, which has a theta-role according to Chomsky. Yet, because it is only meant to cover Reflexive SE, the approach is not well-suited to cover SE in its entirety. Reinhart & Reuland (1993) is more promising in this respect. Reinhart & Reuland distinguish two types of anaphors, which they call SELF-anaphors and SE-anaphors. They suggest that the difference between the two lies in the ability to be stressed, which would equate SELF-anaphors to strong SE, and SE-anaphors to not-strong SE. Furthermore they point out that on the functional domain SELF-anaphors are productively reflexive (that is, reflexive SE) and SE-anaphors are intrinsically reflexive (that is, inherent SE). Yet, this generalization cannot hold, because Romance SE-tokens like French *se* are clitics, and therefore SE-anaphors, but nevertheless they are productive, which makes them Reflexive SE. Therefore it seems the relation between form and function is not one-to-one, but more complex, as (70) shows.

(70)

Form	Function	Example
strong	reflexive	Dutch <i>zichzelf</i>
not strong	reflexive	French <i>se</i>
not strong	inherent	Dutch <i>zich</i> , French <i>se</i>

There have been other approaches based on Chomsky (1981). Among them are Steinbach 2002 and Dobrovie-Sorin 2005. Both argue that reflexive SE has a theta-role, while other functions like inherent, anticausative and middle SE do not have theta-roles. Most problematic for both approaches is the status of reciprocal SE. For Steinbach reciprocal SE is a subset of inherent SE. Furthermore he argues that with inherent SE the subject does not have the external but the internal theta-role of the predicate. He introduces the following example

- (71) Herr Rossi erkältet sich.
 Mr. Rossi catches-a-cold SE
 ‘Mr. Rossi catches a cold.’

I agree that in this example the subject probably has the internal theta-role; personally, I would regard *sich erkälten* ‘to catch a cold’ therefore as an instance of anticausative SE. Yet, there are verbs in German that probably do have a subject with an external theta-role:

- (72) *sich anziehen* ‘to get dressed’, *sich baden* ‘to bathe’, *sich beeilen* ‘to hurry’, *sich duschen* ‘to take a shower’, *sich entscheiden* ‘to decide’, *sich rasieren* ‘to shave’, *sich setzen* ‘to sit down’, *sich waschen* ‘to wash (oneself)’

The subjects of these verbs are all in control of the action, and therefore they most likely have external theta-roles. The same goes for reciprocal SE: in general the subjects of verbs with reciprocal SE are in control of the action. This is not compatible with Steinbach’s analysis. He would predict that the subject of reciprocal SE always is an internal argument, because he considers reciprocal SE a subset of inherent SE, and the subject of inherent SE an internal argument.

Dobrovie-Sorin (2005), on the other hand, considers reciprocal SE as being most similar to reflexive SE. Because reflexive always has a theta-role, this suggests that reciprocal SE also always has a

theta-role. However, this is not true for all languages with SE. In the Scandinavian languages the *-s* and *-st* affixes can have a reciprocal function, but this function is limited to verbs for which reciprocity comes naturally. So apparently, Scandinavian reciprocal SE is inherently reciprocal, which probably does not have a theta-role itself, analogous to inherent reflexive SE. In sum, also for Dobrovie-Sorin the status of Reciprocal SE is troublesome.

There has been another type of approach to SE's variation as well. Examples of this type are Grimshaw (1982) and Wehrli (1986). They claim that Romance SE is not an anaphor, but a verbal marker, and consequently that it does not have a theta-role. This analysis may hold for Romance SE, but it does not hold for other languages with SE. As we saw earlier, German *sich* does not look like a verbal marker at all. Consider (63), repeated from above:

- (63) a. Max hat nur sich belogen.
 Max has only SE deceived
 'Max deceived only himself.'
- b. Max hat dich und sich betrogen.
 Max has you and SE deceived
 'Max deceived you and himself.'
- c. Wen hat Max betrogen? Sich!
 Who has Max deceived SE
 'Who did Max deceive? Himself!'

Verbal markers typically do not show behavior like this. Another counterargument for the verbal marker hypothesis is the existence of long-distance SE, see (40) repeated from above.

- (40) Jón segir [að María telji [að Haraldur vilji [að
 John says that Mary believes that Harold wants that
 Billi heimsæki sig]]]
 Bill visits SE
 ‘John says that Mary believes that Harold wants Bill to visit
 him’ [him = John]

To consider SE-token *sig* in (40) as a verbal marker would be very problematic. It cannot be a marker of the verb form *heimsæki* ‘visits’, because it is not the case that the act of visiting is reflexive. Neither can *sig* be a marker of verb form *segir* ‘says’: the SE-token and the verb form are too far apart for this. Another option would be to presume a complex predicate in (40) that encompasses both *segir* ‘says’ and *heimsæki* ‘visit’, but such a complex predicate, with a number of finite clauses in it, would be unwarranted. All in all, it seems that it is not feasible to claim that SE is always a verbal marker without a theta-role.

Reinhart & Siloni (2005) could be seen as a hybrid approach, incorporating elements of both types of approaches. For them the split between SE with and SE without a theta-role is the same as the split between long-distance and local SE: long-distance always has a theta-role, and local SE never has one. To show that German *sich* is a verbal marker, and not an anaphor with a theta-role they present the following two examples:

- (73) a. ??Ich habe ihm sich gezeigt.
 I have him(Dat) SE shown
- b. Ich habe ihm sich selbst gezeigt.
 I have him(Dat) SE self shown
 ‘I have showed him himself.’

Using *sich* to refer to a dative element is not as felicitous as using the augmented form *sich selbst*, and from this Reinhart & Siloni

conclude that *sich selbst* is the real anaphor, because it poses no restrictions on the nature of its antecedent. I do not agree that anaphors do not pose restrictions on their antecedents. Consider the following example (Putnam 2005):

- (74) *Dass Fritz den Gästen gestern ein-ander
 that Fritz the(Dat) guests(Dat) yesterday each-other
 vorgestellt hat.
 introduced has

Referring to dative elements is not possible for *einander* ‘each other’, the German reciprocal pronoun that coexists with reciprocal *sich*, either. This suggests that *einander*, which is by all accounts a real anaphor, poses restrictions on the nature of its antecedent. And if *einander* is nevertheless an anaphor, there is no reason to assume that *sich* cannot be an anaphor. Because of this I will keep to my assumption that German *sich* is an anaphor with a theta-role.

5.2 SE’s functional classification

Approaches to SE not only differ with respect to the argument status of SE, but also with respect to the functional classification of SE. With functional classification I mean the issue of which of SE’s functions could be lumped together. Wehrli (1986) has a very clear answer to the question:

(75)

	internal	external
non-lexicalized	Reflexive(/Reciprocal)	Middle
lexicalized	Inherent	Anticausative

He classified SE’s functions using two parameters: 1) whether the internal or the external theta-role is absorbed; 2) whether the

absorption is lexicalized or not. Yet, in my opinion SE cannot be classified by using only two parameters. (75) would predict that there could exist a language with only reflexive and middle (and possibly also reciprocal) SE. Such a language does not exist however. Cross-linguistically it seems that a language only has middle SE if it also has the three other functions in (75). Also, from diachronic data it is known that languages only acquire middle SE, after they have acquired the other three functions. Therefore it seems that a two-by-two classification matrix makes the wrong prediction regarding SE's functional variation.

Dobrovie-Sorin (2005) proposes a less schematized classification of SE; in her proposal there are three sets of two functions that are closely related:

- (76)
- i. Reflexive and Reciprocal
 - ii. Inherent and Anticausative
 - iii. Middle and Passive

A closer look at (37), repeated below, reveals that this classification is not always correct either.

(37)

	Rfl	Inh	Rcp	AC	Mdl	Psv
Latin se	+					
Old French se	+	+	+			
French se	+	+	+	+	+	+
Old Norse sik	+	+				
Old Norse -sk		+	+	+	+	+
Icelandic sig	+	+				
Icelandic -st		+	+	+	+	+
Danish sig	+	+		+		
Danish -s		+	+	+		+
Gothic	+	+	+	+		
German sich	+	+	+	+	+	
Dutch zich		+		+		
Old Church Slavonic sebe	+					
Old Church Slavonic se			+			
Russian sebja	+					
Russian -sja		+	+	+	+	+

In Old French SE had reflexive, reciprocal and inherent functions, which is unexpected considering (76). Furthermore, German SE has all six functions except for passive, and Danish SE has all six functions except for middle. Both variation patterns are not to be expected under the assumption of (76).

The approach in Steinbach (2002) is even less schematized with respect to SE's functions. Steinbach distinguishes two groups, one consisting solely of reflexive SE, and the other consisting of all other functions:

(77)

- i. Reflexive
- ii. Inherent, Reciprocal, Anticausative, Middle, (Passive)

This approach would predict that languages either have group (i), group (ii), or both group (i) and (ii). In other words, what this approach cannot predict is that languages can have group (i) – reflexive SE – and some of the functions in group (ii) but not all. This is in my opinion a shortcoming in the predictive power of (77).

Other approaches (e.g. Grimshaw 1982, Reinhart & Siloni 2005) do not have any classification at all. That is, they posit SE's functions as autonomous categories that are independent of each other. And indeed, such a classification does not make any wrong prediction regarding the variation. In fact, it predicts that anything is possible. But this is not the case either, as (37) shows. The variation does not seem to be random; we clearly observe a pattern in the data. In the next chapter I will look into this pattern in detail.

Chapter 6

A diachronic perspective

In the previous chapter we have seen the shortcomings of previous approaches regarding the analysis of SE's variation. These shortcomings are the following:

- (i) The distinction between SE with and without a theta-role is not handled in accordance with the cross-linguistic data (Chomsky 1981, Grimshaw 1981, Wehrli 1986, Reinhart and Reuland 1993; Steinbach 1998; Dobrovie-Sorin 1999; Reinhart and Siloni 2005).
- (ii) The classification of SE's function either makes the wrong predictions (Wehrli 1986, Dobrovie-Sorin 1999), or too many predictions (Chomsky 1981, Grimshaw 1981, Reinhart and Reuland 1993; Steinbach 1998; Reinhart and Siloni 2005).

In the current chapter I will propose an account that deals with these shortcomings. An important property of this account will be the diachronic perspective on SE.

6.1 Modeling the variation patterns of SE's functions

First let us consider (69) again:

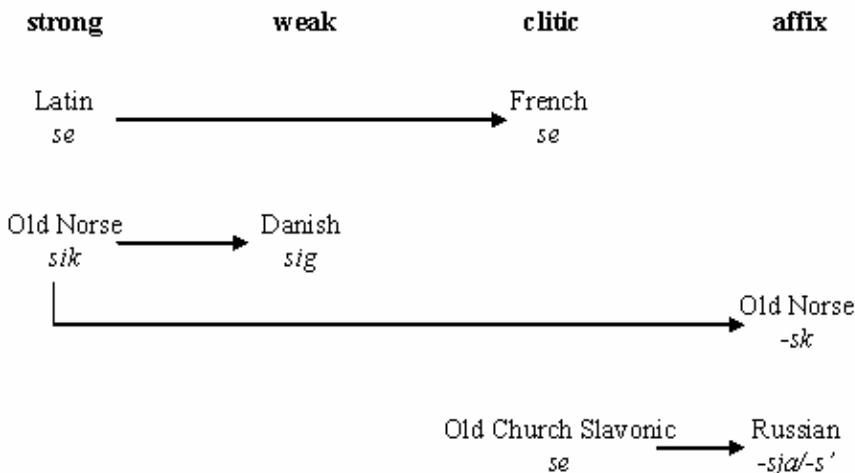
(69)

	Strong	Weak	Clitic	Affix
Latin <i>se</i>	+			
Old French <i>se</i>			+	
French <i>se</i>			+	
Old Norse <i>sik</i>	+	+		
Old Norse <i>-st</i>				+
Icelandic <i>sig</i>	+	+		
Icelandic <i>-st</i>				+
Danish <i>sig</i>		+		
Danish <i>-s</i>				+
Gothic	+	+		
German <i>sich</i>	+	+		
Dutch <i>zich</i>		+		
Old Church Slavonic <i>sebe</i>	+			
Old Church Slavonic <i>se</i>			+	
Russian <i>sebjja</i>	+			
Russian <i>-sja</i>				+

The variation in form seems to be random at first sight. However, if we consider the diachronic dimension of the forms the picture becomes much clearer (see Kemmer 1993, Puddu 2005). French clitic *se* (and other Romance reflexive clitics) developed from Latin strong pronoun *se*. In Germanic a strong pronoun SE was attested in all three branches (represented by Old Norse, Gothic, and Old High German) which led to the postulated reconstruction of an Proto-Germanic **sik* strong pronoun. The Scandinavian affix SE forms

(Old Norse *-sk*, Icelandic *-st*, Danish *-s*) are therefore assumed to be more recent developments. The transition of Danish *sig* from strong pronoun to weak pronoun is also a recent development. In the Slavonic languages the clitic form *se*, attested in Old Church Slavonic, developed into the clitic form *-sja/s'* in Russian:

(78)



Based on this and other evidence historical linguists have reconstructed a Proto-Indo-European **se-/swe*-stem (see Brugmann, Karl & Delbrück 1893, Puudu 2005). This stem was probably inflected for case, just like Latin *se*, Old Church Slavonic *sebe* and the older Germanic SE-tokens. Since all these forms were strong pronouns, Proto-Indo-European **se-/swe* is also said to be a strong form. This also follows from its capacity to have case inflection, because case inflections make the whole SE-token morphological complex, and morphological complex pronouns are likely to be able to bear stress.

What we have now is a strong Proto-Indo-European SE that could develop into weak, clitic and affix forms along the way. And

indeed Bresnan (2001) notes the following diachronic development for pronouns in general:

(79) strong > weak > clitic > affix

This development would most certainly hold for SE. Apparently, diachrony can explain a great deal about the formal side of SE. But what about the other characteristics of SE? Let us consider (37), the overview of SE's functional variation, again:

(37)

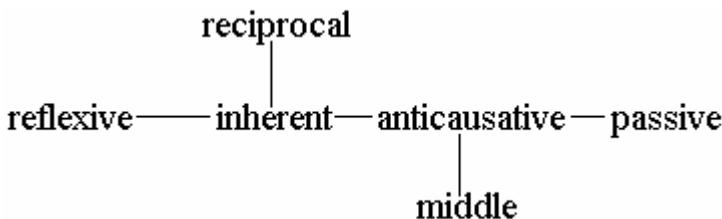
	Rfl	Inh	Rcp	AC	Mdl	Psv
Latin <i>se</i>	+					
Old French <i>se</i>	+	+	+			
French <i>se</i>	+	+	+	+	+	+
Old Norse <i>sik</i>	+	+				
Old Norse <i>-sk</i>		+	+	+	+	+
Icelandic <i>sig</i>	+	+				
Icelandic <i>-st</i>		+	+	+	+	+
Danish <i>sig</i>	+	+		+		
Danish <i>-s</i>		+	+	+		+
Gothic	+	+	+	+		
German <i>sich</i>	+	+	+	+	+	
Dutch <i>zich</i>		+		+		
Old Church Slavonic <i>sebe</i>	+					
Old Church Slavonic <i>se</i>			+			
Russian <i>sebja</i>	+					
Russian <i>-sja</i>		+	+	+	+	+

What do we see here? First of all it seems that the set of functions that each SE-token has is not random, but has a tendency to be *contiguous* (see Croft 2003), i.e. the interpretations of a SE-token are almost always next to each other. This contiguity obviously stems from the way I ordered the functions in (37):

(80) reflexive > inherent > reciprocal > anticausative > middle > passive

The ordering in (80) seems to have two exceptions: Danish *-s* can have an anticausative and a passive interpretation but not a middle one (Bergeton 2004); and Dutch *zich* can have an inherent and anticausative interpretation, but not a reciprocal one. If we want to handle these exceptions properly we may give up the one-dimensional ordering in (80) in favor of a more-dimensional ordering:

(81)

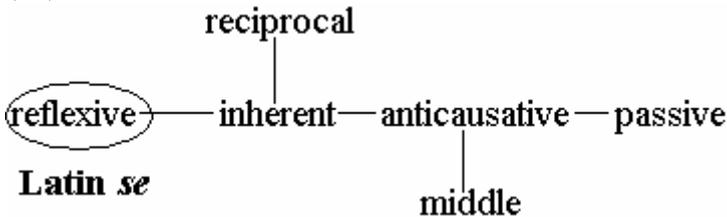


This ordering correctly shows the variation patterns of the SE-tokens in (37). It takes the form of a semantic map (cf. the semantic map in Haspelmath 2003), which means that the set of functions that a SE-token has must be adjacent in (81). Two functions are adjacent if there is a line between them. Furthermore, the map in (81) has only five of these lines, which is the smallest number of lines possible with six interconnected functions. Because of this small number of lines, the map in (81) does not predict too many variation patterns, which means that the predictive power of the map is high. On the other hand, it can account for all the patterns that are attested. Note

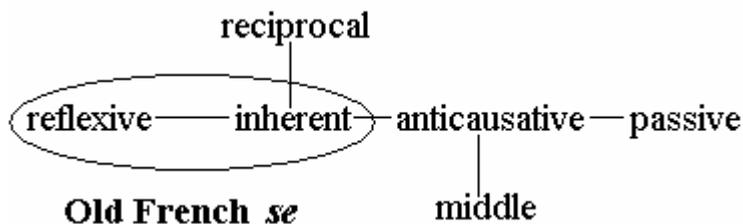
that other five-line maps are also possible with the data in (37), but I will argue in favor of the specific arrangement in (81) on a conceptual basis in the next sections.

An important feature of semantic maps is that they make predictions about the diachronic development of linguistic items (Haspelmath 2003). For the map in (81) this would mean that historical increase and decrease in functions always followed the lines of the map. So, for example, an inherent SE-token can only acquire an additional passive function if it already has the anticausative function. Let us now look at how the functions of SE developed for the various Indo-European languages. A first good example is the development from Latin to French (see Kemmer 1993). Latin started out with only a reflexive meaning for SE; all other meanings were expressed with the passive affix *-r/-or*. However, already in Old French, practically a descendent of Latin, SE spread to the domain of Inherent meanings as well. Finally, in Modern French SE encompasses all six meanings:

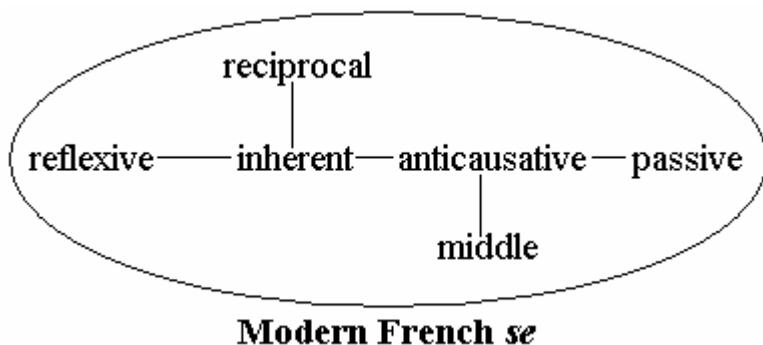
(82) a.



b.



c.

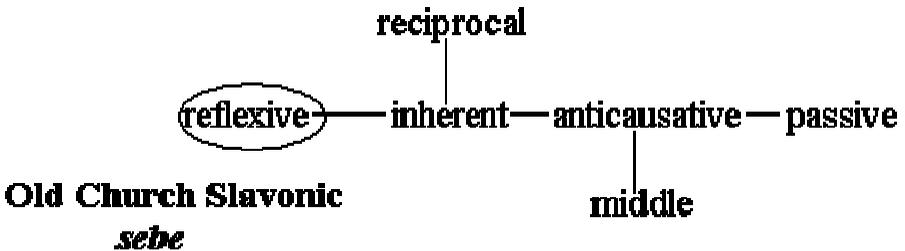


Also, similar developments can be given for the other Romance languages (Kemmer 1993).

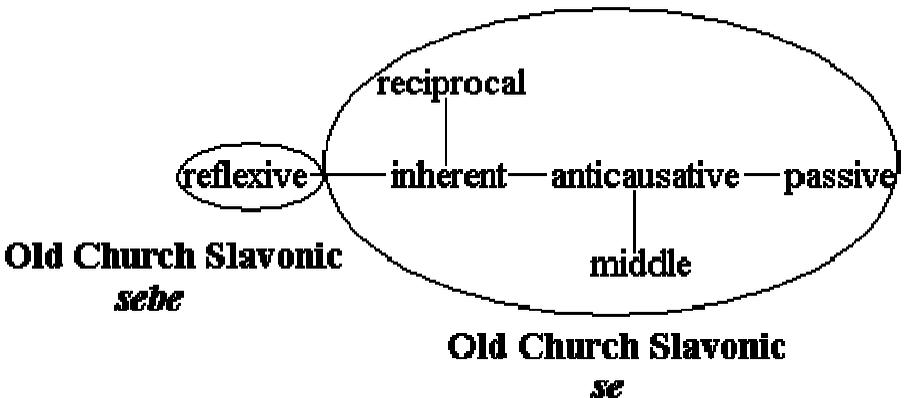
The Romance languages show a development from only a reflexive meaning for SE to all six meanings. How about the other Indo-European languages with SE? Unfortunately, historical documentation of the Germanic and Slavic branches do not date back as far as Latin. Therefore the modern languages in the two branches do not differ as much from their earliest documented ancestors. Examples of differences are the development of the reciprocal function in German (Gast & Haas forthcoming) and the development of the passive function in Scandinavian (Faarlund 2004). Fortunately, we can combine the diachronic development of the formal side of SE in (78) with the semantic map in (81) to come up

with better results. In Old Church Slavonic the strong form *se-* (usually called *sebe* after its genitive/accusative form) with reflexive function coexisted with a clitic *se*, which could have all functions but the reflexive one (83b). The clitic form developed out of the strong form, so in the earliest stage of the language there only was the strong form. What functions did this strong form have? One probable answer is: only the reflexive function (83a), which would keep the function of *sebe* the same throughout history (Franks & King 2000).

(83) a.



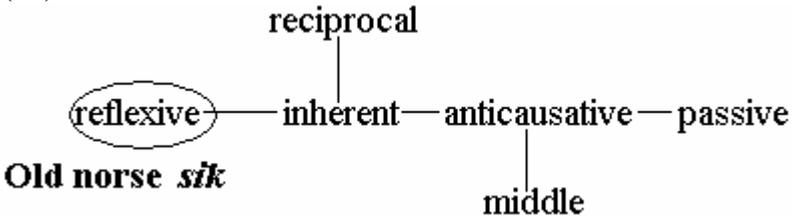
b.



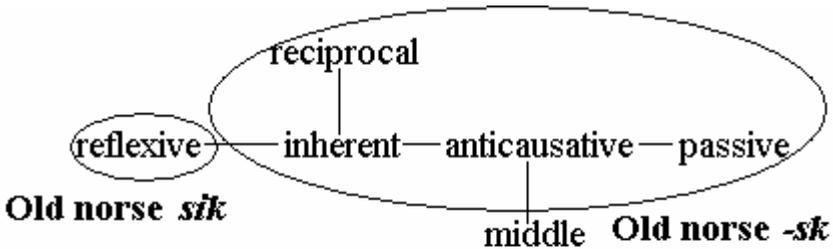
For the Germanic languages the situation is similar (Faarlund 2004). In Old Norse there was a strong form *sik*, with a reflexive function, and an affix *-sk* with non-reflexive functions (84b). The affix

developed from the strong form, so probably in older stages of Old Norse there was only a strong form *sik* with a reflexive function (84a).

(84) a.

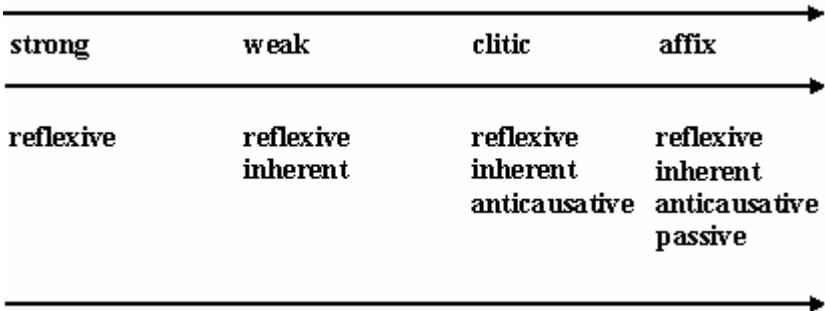


b.



Evidence from historical languages in the other Indo-European languages also show that SE probably started out as a strong pronoun with only a reflexive function like in Latin (Puđu 2005). This seems to suggest that in the Indo-European languages the development of SE-forms and SE-functions went roughly hand in hand:

(85)



(85) does not mean that, for example, all clitics are anticausative, it only expresses that changes in the formal domain and changes in the functional domain tend to correlate.

How does this all relate to the structural position of SE's antecedent? As we have seen, SE's antecedent can be embedded in a variety of structures relative to its antecedent. Consider (48) again, repeated from above.

(48) Menuzzi's (1999) Hierarchy for SE

VP > PP > LOC > ECM > NP, AP, NPS > CTRL > PR > SBJ > IND

(VP = no embedding; PP = argument adpositional phrase; LOC = locative adposition phrase; ECM = infinitive with Exceptional Case Marking; NP = subjectless noun phrase; AP = small clause with adjective phrase; NPS = noun phrase with subject; CTRL = infinitive phrase with controlled subject; PR = relative clause; SBJ = subjunctive finite clause; IND = indicative finite clause)

In historical languages like Latin and Old Norse it can be seen that all these structures are possible phrases for SE to be embedded in (Menuzzi 1999). Furthermore, (48) can be seen as a scale from more complex structure (right) to less complex structures (left). In this light Menuzzi shows that languages tend to drop the more complex structures as possible sites to embed SE in. So for example,

German and Dutch SE cannot be embedded in an indicative or subjunctive finite clause relative to the antecedent and Romance clitics (like French *se*) cannot be embedded at all. How does this cline in (48) correlate with SE's formal and functional characteristics? In the Indo-European languages it can be observed that SE-tokens with non-reflexive function can only be local. This suggests that non-reflexive functions are always produced in combination with their predicate. Yet it can be doubted that the function of non-local SE should be called reflexive. Consider (40) again:

- (40) Jón_i segir [að María telji [að Haraldur vilji [að
 John says that Mary believes that Harold wants that
 Billi heimsæki sig_i]]]
 Bill visits SE
 'John_i says that Mary believes that Harold wants Bill to
 visit him_i'

It is very hard to see this sentence as a reflexive sentence. Perhaps it would be better to dub the reflexive function an anaphoric function. I will take up this point later on.

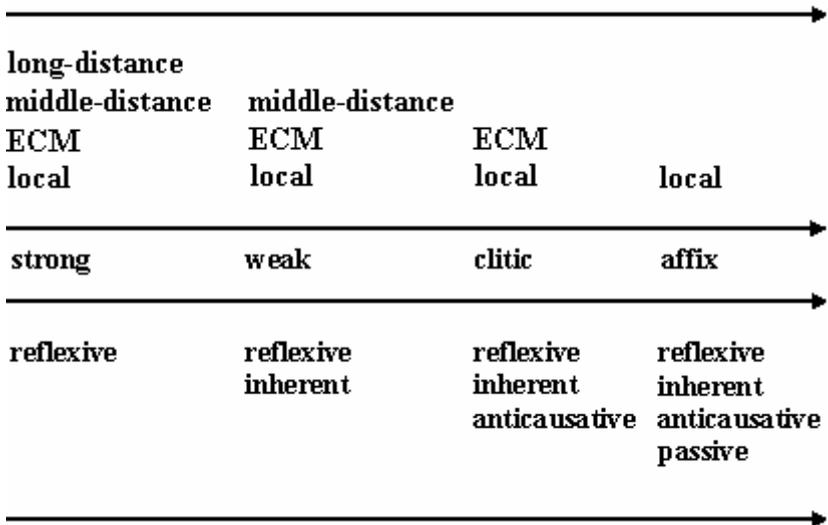
The correlation between a SE-form and its embedding possibilities relative to the antecedent is more subtle. There is however certainly a tendency for SE to lose its ability to be embedded in complex structures relative to its antecedent when it becomes more affix-like in form. In French clitic *se* cannot be embedded at all, while strong form *soi* can be embedded to some extent. Icelandic affix *-st* also cannot be embedded at all (though it should be noted that *-st* is non-reflexive, which is also an explanation why it cannot be embedded), while Icelandic strong form *sig* can be embedded to a great extent.

For ECM objects the situation is even more subtle. In general, whenever a normal SE object is possible, an ECM SE object is also possible. The only exception to my knowledge is Russian affix *-sja*, which cannot occur as an ECM object. Yet, it is most certainly not

the case that affix SE in general is unable to be an ECM object. Icelandic has shown that its affix SE form *-st* can be used as an ECM object. In the Mainland Scandinavian languages, however, this usage is no longer possible.

All in all, there seems to be parallel developments on the three dimensions in SE's diachrony. The structures in which SE can be embedded tend to decrease, the form in which SE appears tends to change, and the functions that SE can have tend to increase. These three developments are depicted in (86).

(86)



Moreover, there seems to be a correlation between the three developments. A change on one dimension tends to co-occur with a change on the other dimensions. Yet, this correlation is only partial; one dimension can change without the other two having to change. In other words, the developments only tend to occur together.

6.2 From reflexive to inherent SE

So far, we have seen that Indo-European SE started out as a strong form with a reflexive meaning that could have an antecedent at a local, ECM or long-distance position. Also, from this starting point there are three changes (though they do not manifest themselves in every language that has SE):

- SE gains more meanings
- SE changes forms
- SE limits its antecedent to the local domain

The changes are loosely connected to each other, so if all three developments happen in a language, an interesting question would be what change happened first. A change on the formal dimension is not beneficial: the language would lose the ability to emphasize SE. A change on the dimension of embedding is not beneficial either, because the only available change is a loss in possibilities. So, most likely it is the functional development that happened first.

And indeed in a language like Latin it can be seen that the first development that happened to SE was probably an extension of the SE-token to predicates that are inherently reflexive, which gives us the emergence of Inherent SE (Kemmer 1993). This inherent SE cannot be a strong form: inherent SE does not have a theta-role of its own (Inherent SE-predicates only have an external argument) and therefore it cannot bear emphasis. In other words, once a SE-token gains the Inherent SE-function, it also gains an additional form, the weak form. This is the situation as it currently exists in German.

- (87) Phase 1: sich [reflexive, strong]
 Phase 2: sich [reflexive, strong] sich [inherent, weak]

This situation has a disadvantage. The language now has a SE-token which has two forms, strong and weak. Moreover, these two forms

can only be distinguished in an environment of emphasis, because this is the only environment in which one form is allowed, and the other one disallowed. This is problematic, as the following example shows:

- (88) a. Die Spieler konnten sich nicht leiden, aber sie
 the players could SE not bear but they
 mochten den Trainer.
 liked the coach
 ‘The players couldn’t stand themselves/each other, but they liked the coach.’
- b. Sich konnten die Spieler nicht leiden, aber sie
 SE could the players not bear but they
 mochten den Trainer
 liked the coach
 ‘The players couldn’t stand themselves/*each other, but they liked the coach.’

In German reciprocal SE developed out of inherent SE and therefore it also only has a weak form. Because of this reciprocal *sich* cannot occur in environments that bear emphasis, like fronting (88b). Consequently, reflexive and reciprocal *sich* differ only marginally with respect to syntax: they are both acceptable in (88a), but only reflexive *sich* is acceptable in (88b). This might pose a learnability problem to learners of German.

Other languages have found ways to avoid this problem. In Dutch and Danish an additional SE-token was developed that took over the reflexive function (see Bergeton 2004). This new SE-token was a combination of the original SE-token with the intensifier. For Danish the original SE-token was *sig* and the intensifier *selv*, creating the new SE-token *sig selv*:

- (89) Phase 1: *sig* [reflexive, strong]
 Phase 2: *sig* [reflexive, strong] *sig* [inherent, weak]
 Phase 3: *sig selv* [reflexive, strong] *sig* [inherent, weak]

In the Slavic languages a similar thing happened. The Slavic reflexive was originally the stem *se-* that was inflected for case (Franks & King 2000). Initially, the accusative form was not *sebe*, but *se*, a for without case inflection. From this accusative a clitic form *se* developed that had inherent and additional functions. But now Slavic had two SE-tokens that were homophonous. In order to solve this Slavic developed a new accusative strong form from its genitive strong form *sebe*. This solved the homophony problem:

- (90) Phase 1: *se* [reflexive, strong]
 Phase 2: *se* [reflexive, strong] *se* [inherent, clitic]
 Phase 3: *sebe* [reflexive, strong] *se* [inherent, weak]

Another solution to the problem is found in French (and other Romance languages). Like Slavic, French developed a weak form *se* (which subsequently become a clitic) from the original strong pronoun *se*, which left the language with two types of *se*. For French the solution was to drop the strong form altogether. This meant that both types of *se* took the clitic form:

- (91) Phase 1: *se* [reflexive, strong]
 Phase 2: *se* [reflexive, strong] *se* [inherent, clitic]
 Phase 3: *se* [reflexive/inherent, clitic]

To use reflexive *se* in an environment that bears emphasis, an intensifier has to be used:

- (92) Jean se déteste lui-même.
 John SE detests himself
 ‘John detests himself.’

In conclusion it can be said that the change from reflexive to inherent function produces a change from strong to weak form, which leads to an unwanted situation, for which language employed different solutions.

6.3 From inherent to anticausative SE and beyond

The next step in the development of SE is the change from inherent to anticausative SE. An interesting point of this change is that the subject in an inherent SE-predicate represents the external argument, and in an anticausative SE-predicate it represents the internal argument. In other words, the subject changed from a volitional participant to a non-volitional one, which led to the possibility to use inanimate subjects with SE. How did this change come about? A probable answer can be found in so-called *psych verb* predicates that have SE:

- (93) a. Het programma amuseerde Jan.
 the program amused John
- b. Jan amuseerde zich
 John amused SE
 ‘John enjoyed himself’

In (93a) a form of the psych verb *amuseren* ‘to amuse’ is given in which the experiencer, *Jan*, is in object position. When a variant with SE is formed of this verb, it is the experiencer that is promoted to subject (93b). Probably it were experiencer verbs like these that served as a bridge between inherent SE and anticausative SE (cf. Kemmer 1993). In (93a) *Jan* is the internal argument of the verb

(which makes these verbs similar to Anticausative SE-verbs), and yet *Jan* is the animate argument in (93) (which makes these verbs similar to Inherent SE-verbs).

Once the possibility for SE to have an inherent argument appears, the status of SE as a marker of intransitivity is firmly established. Because of this SE can develop other functions like middle and passive SE. With the addition of these two functions the development of SE's functions is completed.

6.4 Conclusion

In this chapter we have seen that reflexive elements tend to develop into a marker of functions like the passive. What underlies these developments is the following. In the languages of the world there is a general tendency to move from expressing reflexivity with reflexive pronouns to expressing reflexivity with verbal markers (Kazenin 2001). This tendency reflects the observation that reflexivity is felt to be a part of the predicate (cf. Reinhart & Reuland 1993). If SE is not a part of the predicate but an anaphor, the reflexivity interpretation is epiphenomenal to the structure in which the anaphor is used, see (27) repeated from above.

- (27) Consequences of structure [NP V SE] where SE is reflexive
- i. The reflexive refers to the same entity as the NP
 - ii. Semantically this means that NP is both agent and theme of the predicate
 - iii. When agent and theme are the same entity, a reflexivity interpretation ensues

In other words, with anaphoric SE the reflexivity interpretation is given indirectly, while with verbal marker SE it is given directly. Direct encoding of reflexivity better suits the feeling that reflexivity is a part of the predicate itself.

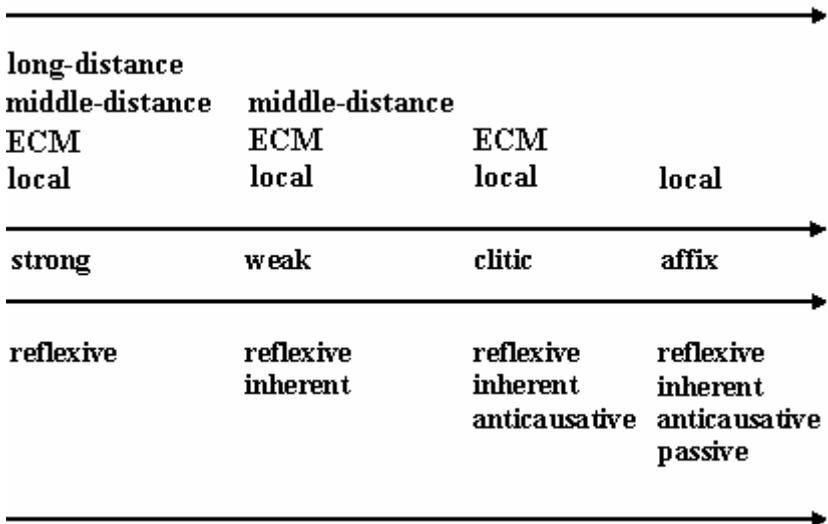
This desire for a direct encoding explains the initial change of expressing reflexivity inherently: SE loses its theta-role, which diminishes its anaphoric status. Consequently, SE becomes a polysemous, semantically bleached element that can be used for all sorts of thematic operations. The desire also explains why SE tends to evolve from a strong pronoun to a verbal affix: obviously, a verbal affix resembles the concept of verbal marker better than a strong pronoun. A side-effect of this tendency to get more verbal is the loss of long-distance binding for SE. Because SE tends to become a verbal marker it no longer has the capacity to reach outside the domain of its verb.

Chapter 7

Conclusion

In this thesis I have shown that the variation of SE-tokens in the Indo-European languages can best be explained by a diachronic perspective on the development of SE. The development of SE is schematically depicted in (86), repeated from above.

(86)



What underlies these developments is the following. Languages like to express their reflexivity inherently for some of its verbs. If SE

is preserved with these verbs, it loses its argument status in those cases. Once this loss of argument status is accomplished, it becomes possible for SE to mark functions with inherent arguments as subject. Additionally, because SE is not an argument anymore, its form gradually develops into a verbal affix. Furthermore, SE also loses its function as a long-distance anaphor, because of its status as a non-argument. Together these explanations form the basis for the developments illustrated in (86). “Getting more verbal” sums up the motives for the changes in SE quite well.

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