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Ergative reflexives in Heerlen Dutch and French*

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Abstract. In this article it is shown that the Heerlen Dutch construction *Het riet buigt zich* 'the reed bends refl' crucially differs from its Standard Dutch counterpart. Instead, it has properties very similar to the ones of the French construction *La branche se casse* 'the branch refl breaks'. First, it is argued that both the Heerlen Dutch and the French construction are ergative intransitive counterparts of transitive change of state verbs with a Causer as external argument. Secondly, it is shown that in the ergative constructions *zich*/*se* act as an aspectual marker, namely the aspectual focus is on the end-point of the event. We will claim that this specific aspectual function of the reflexive element is not language specific but that it is a general property of "reflexive" languages of both the 'Roman' and the 'German' type.

1. Introduction

In Heerlen Dutch[i] (henceforth: HD) transitive change of state verbs, such as *bewijzen* (prove), *breken* (break), *drogen* (dry), *koken* (cook), *krullen* (curl), *smelten* (melt) and *veranderen* (change) may give rise to two inchoative counterparts: a reflexive *zich* and an intransitive counterpart, as is shown in (1a) and (1b), respectively. Contrary to what is the case in HD, in Standard Dutch (henceforth: SD) the appearance of the *zich* counterparts is (i) very restricted and (ii) "far from regular" (Everaert 1986: 83):

   (1) a. HD/?*SD Het riet buigt *zich*
                    the reeds bends refl
                    'the reed is bending'
       b. HD/SD   Het riet   buigt
                    the reed bends
                    'the reed is bending'

    Interestingly, in French, as is the case in HD, many transitive change of state verbs give rise to both a reflexive and an intransitive counterpart as is exemplified in (2a) and (2b) respectively (Zribi-Hertz 1987)[ii]. These French constructions have had quite some attention in the literature (see e.g. Lagae 1990, Labelle 1990&1992, Zribi-Hertz 1987 and Ruwet 1972):

   (2) a. La   branche *se*   casse

the branch refl breaks
'the branch is breaking'
  b. La   branche casse
     the   branch   breaks
     'the branch is breaking'

Both Labelle and Zribi-Hertz have convincingly argued in favour of an ergative analysis for the French reflexive construction in (2a). Moreover, all authors agree in noticing an aspectual difference: it has been observed that in the reflexive construction in (2a) the aspectual focus is on the end-point of the event, whereas in the intransitive construction in (2b) the focus is on the process.

The purpose of this paper is to show that the reflexive HD construction in (1a) has essentially the same syntactic and aspectual properties as its French counterpart in (2a). We will claim that the reflexive HD construction in (1a) is in fact an ergative construction in which *zich*, just like the French *se*, acts as an aspectual marker, namely that of focusing on the end-point of the action.
    It is intruiging that in HD this specific aspectual function can also be found in another type of reflexive construction, namely the dative *zich* construction in (3a). Similar to the reflexive construction in (1a), the dative *zich* construction in (3a) denotes a state of affairs that can be described as the end-point of the action. Note that (3a) is ungrammatical in SD:

  (3) a. HD/*SD Jan   eet   *zich*   een   boterham
                  Jan   eats   refl   a   sandwich
                  'Jan eats a (whole) sandwich completely'
       b. HD/SD   Jan   eet   een   boterham
                  Jan   eats   a   sandwich

    Recently, it has been argued that also in Spanish the reflexive *se* acts as an aspectual marker in the following dative *se* construction. As in HD, the aspectual focus in the Spanish reflexive construction in (4) is on the end-point or the final state of the entity (Zagona 1994, Almagro 1993, Nishida 1994):

  (4) Juan   *se*   comióuna   manzana
       Juan   refl   eats   an   apple
       'Juan eats an (whole) apple completely'

In order to account for these striking aspectual properties of both *zich* and *se* in syntax we like to propose for the reflexive constructions in (1a) and (2a) the structure in (5a) and (5b), respectively in which a functional projection AspP is selected by the verb. It is suggested that this functional projection takes a small clause as its complement in which the NP's *het riet*/*la branche* (the branch) occupy the subject position of this small clause:

  (5) a.   [$_{VP}$ [$_{ASPP}$ [$_{SC}$ [het riet e]   zich]] buigen]
       b.   [$_{VP}$ casser [$_{ASPP}$ [se $_{SC}$ [la branche e]]]]

We will demonstrate that various interesting properties of the *zich*/*se* constructions in HD and French follow from this proposal.

1.1 Organization

This paper is organized as follows. In the first part we will apply several diagnostic tests to show the ergative properties of the HD reflexive construction in (1a). In the second and third part, we will focus on the aspectual properties of both this ergative reflexive and other reflexive constructions in HD and French (Spanish). In the last section we will propose a structural analysis to account for the aspectual similarities of reflexive constructions in HD and French.

2. Ergativity

Within HD the reflexive *zich* occurs in a much wider range of constructions then in SD, for instance in middle, impersonal passive and double object constructions (cf. (3a); Cornips 1994). Of course, one could argue, however, that the HD reflexive counterpart such as (1a) has syntactic properties similar to regular transitive reflexive constructions in SD. In this section, we will briefly discuss this type in SD that is also fully grammatical in HD. But before we start, we like to point out that although we will discuss SD transitive reflexive constructions in order to gain a better insight in the syntactic properties of the HD reflexive counterparts we do not want to take into account yet the parametric differences between HD and SD with respect to *zich*. The purpose of this section is to demonstrate that the status of *zich* in the HD counterpart crucially differs from the status of *zich* in the transitive SD/HD constructions.

2.1 Regular SD/HD transitive reflexive constructions

Let us first demonstrate that the HD reflexive counterpart and the SD/HD transitive reflexive structure in (6a) and (6b), respectively, do not have the same argument-licensing structure. In that case in the HD reflexive counterpart in (6a) (i) *zich* would have the thematic role of the internal argument and (ii) *het riet* (the reed) the thematic role of the external argument of the transitive verb *buigen*:

> (6) a. HD/?*SD Het riet buigt   *zich*
>   the reed bends   refl
>   b. HD/SD   Jan wast   *zich*
>   Jan washes   refl

However, if the element *zich* in (6a) has the same argumental status as in (6b), we expect at least some syntactic similarities with respect to the element *zelf* ('self') since both in SD and in HD it is possible to combine *zich* with the element *zelf* if it is an internal argument. Now, compare the following examples in (7)[iii]:

> (7) a. HD/SD   Jan wast   *zichzelf*
>   Jan washes   himself

     b. HD/SD   *Het riet   buigt   *zichzelf*
                   the   reed   bends   itself

The indicated contrast in the examples in (7) comes as a surprise if both '*zich*''s have the same argumental status. It may be accounted for, however, by assuming that *zich* in (7b) is not an internal argument.

    Similarly, Ruwet (1972) demonstrates that in the corresponding French construction *se* in regular transitive reflexive constructions can be replaced by *elle-même* (herself) in a focal context, whereas this is impossible in ergative constructions as in (8b) and (9b), respectively:

(8) a.   Marie*se*   lave
            Marie   refl   washes
     b.   Mariene   lave   que   *elle-même*
            Marie   washes   only   herself

(9) a.   La branche*se*   casse
           the branch refl   breaks
     b.   *La branchene   casse   qu'*elle-même*
           the branch   breaks   only herself

With respect to (ii), if the HD reflexive construction in (6a) is a regular transitive reflexive construction embedding under causative *laten* (let) is predicted to be grammatical since this verb takes an infinitival transitive reflexive verb as its argument. As is illustrated by means of the transitive reflexive construction and the HD reflexive counterpart in (10a) and (10b) respectively, this expectation is not borne out[iv].

(10) a. SD/HD   Moeder   laat   de   kinderen *zich*   wassen
              mother   lets   the   children refl   wash
              'Mother has the children washed themselves'
      b. SD/HD *Moeder   laat   het   riet   *zich*   buigen
               mother   lets   the   reed   refl   bend

According to Everaert (1986:89) the ungrammaticality of the example in (10b) follows from the fact that *het riet* (the reed) is not an agentive external argument which is required by causative *laten*.

Moreover, since we claim that the HD and the French reflexive counterparts are indeed constructions without an external argument, the impossibility of construing these constructions with a control complement or with an agent-oriented adjunct follows immediately, as is exemplified in (11) and (12), respectively[v]:

(11) a. HD   *Het riet   buigt   *zich*   om   bescherming te   vinden
               the reed bends refl   comp   protection   to   find
               'the reed is bending in order to find protection'
     b. HD   *Le verre   *se*   casse pour   ennuyer   les   gens

| | | | the glass | refl | breaks | comp | annoy | the | people |

the glass refl breaks comp annoy the people
'the glass is breaking in order to annoy the people'

(12) a. HD   *Het riet buigt *zich* opzettelijk
           the reed bends refl deliberately
    b. HD   *Le verre *se* casse délibérément
           the glass refl breaks deliberately

For completeness, it is very important to indicate that if in HD the surface subject of a reflexive construction carries the feature [+human], the construction is necessarily interpreted as a regular transitive reflexive construction (cf. (13a)). Of course, the external argument in the transitive reflexive construction can control a PRO subject in a purpose clause or license an agent-oriented adjunct:

(13) a. SD/HD   Jan buigt/wast *zich*
             Jan bends/washes refl
    b. SD/HD   Jan buigt/wast *zich* om de mensen te vervelen
             'Jan is bending/washing (himself) in order to annoy the people'
    c. SD/HD   Jan buigt/wast *zich* opzettelijk
             Jan bends/washes refl deliberately

Summarizing, we have indicated briefly that the HD reflexive counterpart differs from the SD/HD regular transitive reflexive construction in that (i) *zich* is not an internal argument or an object and (ii) the surface subject does not act as an agentive external argument.

In the following sections we will discuss extensively the argumental status of the surface subject of the HD reflexive counterpart.

2.2 Ergativity tests

In this section we will claim that the HD reflexive counterparts, as in (1a) are ergative, just like the French ergative *se* construction. For this reason, we apply some of the well-known ergativity tests. We will show that this HD construction corresponds closely to the French ergative *se* construction (cf. (2a)).

2.2.1 Participle-adjective conversion

In the literature a number of tests has been discussed that distinguish ergative verbs from intransitive, unergative verbs (see e.g. Hoekstra 1984: 211). First, we will concentrate on the *participle-adjective* conversion. In general, participles can be used as predicates over nouns which correspond to their initial direct object. In both French and HD/SD ergative verbs allow their past participles to be used as an adjective predicating over the surface subject. Unergative verbs, on the other hand, do not permit this.

If we try to apply this test, a very interesting result arises. Strikingly, in HD the participle of the ergative construction can be used as an adjective predicating over the surface subject, as is demonstrated in (14a) (Note that this example is ungrammatical in SD). The participle of a regular transitive construction, by contrast, gives rise to an

ungrammatical result if it is used as an adjective predicating over the surface subject (cf. (14b)):

(14) a. HD/*SD Het *zich* gebogenriet
              the refl bent   reed
     b. HD/SD *Het *zich* gewassen   kind
              the refl washed   child

The grammaticality of the example in (14a) can be explained by assuming that the surface subject *het riet* (the reed) is an internal argument. Therefore, the indicated contrast in (14a-b) points in the same direction as the data in the examples (10)-(13) above; it clearly suggests that the HD reflexive counterpart does not have an external argument.

In French clitics always attach to INFL and, hence, they never attach to participles (see Kayne 1991). As a consequence, participle-adjective conversion can not be used as a test in French and the ungrammaticality of the example in (15) does not show anything.

(15) *La branche   *se* cassée
      the branch   refl broken

2.2.2 Impersonal passivization

The second distinguishing property is that in Dutch and in French an unergative intransitive verb[vi] allows for impersonal passivization, whereas impersonal passivization is blocked in the case of an ergative verb. Now consider the following examples:

(16) a.   *Il   *s'*   a   été   cassé[vii]
                 thererefl   has   been broken
     b. HD/SD *Er wordt *zich*   gebroken
                 thereis   refl broken

In the examples in (16) the reflexive counterparts pattern with ergative verbs in both French and in HD. Furthermore, in HD there is a sharp contrast between the ungrammaticality of the example in (16b) and the grammaticality of the impersonal passive of a transitive regular reflexive verb[viii]:

(17) HD/*SD   Er   wordt *zich*   gewassen
              there is   refl   washed

Since the HD reflexive counterpart passes two independently established ergativity tests[ix] we adopt the view that the surface subject in the reflexive counterpart is an internal argument. Since this is what we first wanted to demonstrate, we can now proceed to the discussion of the status of the reflexive *zich/se*.

2.3 The ergative reflexive: the suppression of a Causer external argument

In this section we will demonstrate that the HD and the French ergative reflexive construction is the intransitive counterpart of a causative transitive construction with a Causer external argument.

In French, Zribi-Hertz (1987) has convincingly shown that the ergative reflexive counterpart is related to a transitive construction that does not take an agentive, but a *causative* external argument. Here, we briefly repeat her observations. The French ergative construction combines easily with a prepositional complement which expresses (indirectly) the cause of the change of state expressed by the verb. Consider the following examples:

(18) a.   La branche *s*'est cassée *sous l'effet de l'ouragan*
            the branch refl is broken under the effect of the hurricane
     b.   Le métal *s*'est rouillé *avec l'humidité*
            the metal refl is rusted with the dampness
     c.   Le piton *s*'est descellé *sous la secousse*
            the screw refl is come loose by the jolt

In French, it is interesting that if the surface subject carries the feature [+human], such as (19), reflexive constructions are ambiguous between a regular transitive reflexive reading in which the subject is interpreted as an agens and an ergative interpretation in which the subject is non-agentive (Recall that in HD only the regular transitive reflexive reading is possible above (cf. (13)):

(19) Alfred   *s*'   abêtit
     Alfred   refl   dulls

Evidence that we are indeed dealing with an ergative construction in the example in (19) is the fact that only the ergative interpretation is possible if we add a PP as a causal circumstance (Zribi-Hertz 1987: 35):

(20) Alfred *s*'abêtit   *sous   l'effet   de ses lectures*
     Alfred refl dulls   under   the effect   of his lectures

Transitive reflexive constructions, such as (21), allow only the agentive interpretation and give rise to an ungrammatical result if it is combined with a causative PP:

(21) *Les soldats *se*   sont réunis   *sous   l'effet   des grenades*
      the soldiers refl   are gathered   under   the effect   of the grenades

Now, we like to demonstrate that also the HD reflexive ergative construction is related to a transitive construction that does not take an agentive, but a causative external argument. Consider the following example in which the transitive verb *waaien* (blow) permits only a causative subject.

(22) HD/SD   De   wind/*Marie   waait   de   papieren   uit   de
          doos
                 the   wind/ Marie   blows   the   papers   out   the   box

As predicted, the reflexive ergative construction is possible:

(23) HD/*SD   De   papieren   waaien *zich*   uit   de   doos
              the   papers   blow   refl   out   the   box

As can be seen in the examples in (24), there are, however, also transitive verbs that allow both an agentive and a causative subject. We would expect that if the agentive subject is selected, as in (24a), the HD reflexive ergative construction is impossible, whereas the opposite holds if a causative subject is chosen, as in (24b). Again, these predictions are borne out, as is illustrated in (25a) and (25b), respectively.

(24) a. HD/SD   Marie/*het weer   verandert   de   winkel
                 Marie/ the weather   changes   the   store
      b. HD/SD   Het hogedrukgebied   /*Marie   verandert   het   weer
                 the high-pressure area / Marie   changes   the   weather

(25) a. HD/*SD ?*De winkel verandert   *zich*
                 the store   changes   refl
      b. HD/*SD   Het weer   verandert   *zich*
                 the weather   changes   refl

Furthermore, as we also observed in French (cf. (18)), it is possible in HD to construe the reflexive ergative construction with a prepositional phrase that serves as a causal circumstance:

(26) a. HD/*SD Het   riet   buigt   *zich*   *in*   *de*   *wind*
                the   reed   bends   refl   in   the   wind
      b. HD/*SD De   haren   krullen *zich*   *in*   *de*   *zon*
                the   hairs   curl   refl   in   the   sun

Conversely, if in HD the same PP is linked to a regular transitive reflexive construction, it can only be interpreted as an adverbial phrase of place:

(27) a. HD/SD   Jan wast   *zich*   in de zon
                Jan washes   refl   in the sun
     b. HD/SD   Jan buigt   *zich*   in de zon
                Jan bends   refl   in the sun
                'Jan is washing/bending himself en he is doing it in the sun'

Finally, notice that if the preposition *door*/*par* precedes this causative PP, the HD and French reflexive ergative construction give rise to an ungrammatical result[x]:

(28) a. HD   *dat *door* de   wind het riet *zich* gebogen   heeft
                 that by   the   wind the reed refl   bent   has
     b.   *La branche s'est cassée   *par* l'effet de l'ouragan
                 the branch refl is broken by the effect of the hurricane

From these facts, we may safely conclude that the French and the HD are ergative counterparts of transitive constructions that take a causative external argument. Although we assume that in the ergative reflexive construction *zich*/*se* is not an argument, it may be the manifestation of the non-projection of this causative external argument into syntax[xi].

In the next section, we will show that both in French and in HD the presence of *zich*/*se* restricts the aspectual interpretation of the construction. This aspectual restriction can be accounted for if we assume that the verbs can select a functional projection AspP in which *se*/*zich* can be generated.

3. *Se*/*zich* as aspectual marker

In Zribi-Hertz (1987), it has been observed that in French the intransitive and the reflexive counterparts of transitive verbs differ with respect to aspectual properties. According to her, the ergative reflexive construction implies perfectivity, whereas the intransitive construction implies imperfectivity. Lagae (1990), however, points out that Zribi-Hertz uses the opposition perfective/imperfective in a rather confusing way. Sometimes the opposition refers to a lexical property of the verb and sometimes it refers to a property of the whole proposition. It is for this reason, that before we start discussing the aspectual differences with respect to the French and the HD data, we want to briefly introduce the notion of Aspect such as we will use it here.

3.1 The compositional nature of event structure

Generally, it is assumed that a distinction must be made between two types of aspectual notions, in particular (i) Aktionsart and (ii) presentational aspect. The first notion (Aktionsart) expresses the inherent aspectual properties of a verb. Vendler's well-known categorization of verbs in states, activities, achievements and accomplishments is based on lexical and semantic properties of the verb and, as a consequence it refers to the notion of Aktionsart.

Aktionsart is also referred to as the event structure of the verb, for example by Grimshaw (1990). If the event structure of a verb is combined with elements in the clause,

it provides an event structure for the entire sentence. This resulting event structure refers to the second notion of Aspect, namely 'presentational' aspect. Here, notions such as (im)perfectivity and progressive play a role. These notions describe the way in which an event is depicted: as completed, incomplete or ongoing. Hence, they are related to temporal aspect[xii].

The Aspect or the event type of a sentence is the result of the interaction between the Aktionsart of the verb and the aspectual properties of tense markers and adverbial complements. Pustejovski (1992) expresses this interaction in the following way. He defines achievements and accomplishments as transitions,whereas he defines activities and states as processes. Transitions are said to be telic, or rather, they have an inherent boundary or end-point as opposed to processes which are said to be atelic. According to him, in English the resultative construction involves a systematic event-type shift from processes to transitions as is illustrated in (29a) and (29b), respectively:

(29) a.   Mary hammered the metal   *proces*
     b.   Mary hammered the metal flat   *transition*

That the resultative constructions involve event composition is also suggested by Hoekstra (1992:161) who states that the resultative Small Clause [*the metal flat*] must be licensed through the binding of its e-rol by the event structure of the governing verb. This assumption corresponds to Grimshaw's intuition that the event structure of the clause represents the aspectual analysis of the entire sentence and that it determines, for example, whether adjuncts are admissible or not and what the scope of certain elements will be.

Furthermore, Di Sciullo and Klipple (1993) distinguish different levels of aspectual modification. According to them, there are aspectual modifiers that can only supply more information about the existing aspectual structure whereas other aspectual markers add or change the aspectual structure. Compare for instance the following constructions:

(30) a.   The river froze
     b.   The river froze *solid*

(31) a.   The bottle broke
     b.   The bottle broke *open*

According to Pustejovsky (1992) the adjectival predicates *solid* and *open* in the (b)-sentences respectively, do not alter the event structure of the corresponding (a)-sentences. These AP's merely constitute an attribution to the state that is already introduced by the transition verb itself.

The question that arises, then, is how is the aspectual interpretation of the ergative reflexive construction obtained? Or, to be more precise, at which level does the aspectual modification take place?

3.2 Se /zich and aspectual properties

Labelle (1992) has convincingly shown that it is impossible to claim a clear cut complementary distribution between the French verbs that occur in the intransitive and in

the ergative reflexive constructions[xiii]. Both types of constructions involve change of state verbs which are said to be transitions expressing telicity or inherent boundedness. Therefore, the aspectual differences between the two constructions are more subtle, depending on the way in which the speaker wants to present the situation. According to Labelle, and we agree with her, in the intransitive construction the (aspectual) focus is on the process of transformation of the entity in subject position, whereas in the ergative reflexive construction the (aspectual) focus is on the end-point or the final state of that entity[xiv]. So, the presence versus absence of *se* has an influence on the event structure of the whole sentence.

We assume that *se* is an aspectual marker that is related to the notion of presentational aspect in representing a certain view point on a (telic) event. Although one could say that *se* is related to a subpart of the event that is expressed by the verb, the presence of *se* does not alter the Aktionsart of the verb nor does it modify (sub) parts of events that are characterized by the verb. So, we like to propose the following. If we consider accomplishments as complex events that consist of an activity and a state, the ergative reflexive focusses on the *state* part of the event, whereas the intransitive construction focusses on the *activity* part of the event expressed by the verb. Another way of putting this is that in the ergative reflexive construction *se* has the same role as the adjectival predicates *solid* and *open* in the constructions (30b) and (31b) above. It attributes to the state introduced by the event structure of the (unaccusative) verb itself.

Compare to this end the following ergative reflexive constructions in French and in HD. In French, this type of construction gives rise to an ungrammatical result if it is combined with an adverbial phrase expressing duration, whereas it is fully grammatical if it is linked to an adverbial phrase expressing a specific point in time as, can be seen in (32) and (33), respectively. The same holds for HD:

(32) a.   *Le poulet   *s*'est   cuit   *pendant 3 heures*
            the chicken   refl is   cooked   during 3 hours
     b. HD/SD   *dat het ei   *zich*   *3 minuten lang*   gekookt heeft
            that the egg refl   for 3 minutes   boiled   has

(33) a.   Le poulet   *s*'est   cuit   *en très exactement 30 minutes*
            the chicken   refl is   boiled   in very exactly 30 minutes
     b. HD/*SD   dat het ei   *zich in 3 minuten tijd*   gekookt   heeft
            that the egg   refl in 3 minutes time   boiled   has

Contrary to what is the case in the examples in (32), the intransitive constructions can easily combine with a durational adverb:

(34) a.   Le poulet a cuit *pendant 3 heures*
            the chicken has cooked during 3 hours
     b. HD/SD   dat het ei *3 minuten lang* gekookt heeft
            that the egg for 3 minutes boiled has

But, the intransitive constructions can also easily be construed with a durational adverb expressing a specific point in time:

(35) a.		Le poulet	cuit	*en 30 minutes*
		the chicken	cooks	in 30 minutes
b. HD/SD		dat het ei	*in 3 minuten*	kookt
		that the egg	in 3 minutes	boils

The data in the examples (33)-(35) clearly demonstrate that the presence of *zich*/*se* does not alter the Aktionsart of the verb nor does it modify (sub) parts of events that are characterized by the verb. Rather, as we have mentioned above, it attributes to the state introduced by the event structure of the (unaccusative) verb itself. It is for this reason, that we consider *se/zich* as an aspectual marker which supplies more information about the existing aspectual structure.

In the following section we will show that reflexives (i) in another type of construction and (ii) in another language such as Spanish have similar aspectual properties as in the ergative reflexive construction in French and HD.

3.3 Aspectual properties of the dative zich/se in HD, Spanish and French

In this section we will provide more data which demonstrate that *zich*/*se* acts as an aspectual marker. Consider in HD the following corresponding transitive constructions denoting consumption with and without a reflexive in (36) and (37), respectively[xv]:

(36) a. HD/*SD	Zij	eet	*zich*	een	boterham
	She	eats	refl	a	sandwhich
b.HD/*SD	Zij	drinkt	*zich*	een	bier
	She	drinks	refl	a	beer

(37) a. HD/SD	Zij	eet	een	boterham
	She	eats	a	sandwhich
b.HD/SD	Zij	drinkt	een	bier
	She	drinks	a	beer

First, in analogy with the ergative reflexive (cf. (32b)) in HD the dative reflexive construction is ill formed if it is combined with an adverbial phrase expressing duration (cf. (38a)), whereas the construction is fully grammatical if it is linked to an adverbial phrase indicating an end-point of the action expressed by the predicate (cf. (38b)). Note that the corresponding HD/SD constructions without *zich* are again fully acceptable with both types of adverbial phrases:

(38) a. HD/*SD	*Zij	eet	*zich*	5 minuten lang	een	boterham
	She	eats	refl	for 5 minutes	a	sandwhich
b. HD/*SD	Zij	eet	*zich*	binnen 5 minuten	een boterham	

She   eats   refl   in 5 minutes time   a sandwhich

c. HD/SD   Zij eet *5 minuten lang*/*binnen 5 minuten* een boterham

She eats for 5 minutes/in 5 minutes time a sandwhich

Interestingly a similar phenomenon is found in Spanish where the reflexive *se* acts as an aspectual marker and has been analyzed as having an aspectual role involving telicity (Nishida 1992, Zagona 1994, Almagro 1993). According to Almagro (1993: 136), in Spanish sentences with transitive 'consumption' verbs the presence of *se* such as in (39a) and (40a) expresses the delimitation of the event, or rather, it expresses the consumption of the *totality* of the drank/food. Nishida (1992: 442) also claims that the constructions with *se* higlight the fact that the totality of an object is involved in the situation or that the event is completed. It looks as if the HD and the Spanish reflexive dative construction exhibit the same aspectual properties:

(39) a.   Ella *se*   bebe   el   vino
              She refl   drinks the   wine
              'She drinks (all) the (whole) wine'
      b.   Ella bebe el   vino
              She drinksthe   wine

(40) a.   El   niño *se*   comió una   manzana
              the   child refl   eats   an   apple
              'The child eats (all) the (whole) apple'
      b.   El   niño comió una   manzana
              the   child eats   an   apple

Furthermore, Nishida (1994: 428/431) argues that the aspectual features of the dative reflexive construction are linked to the fact that *se* overtly marks a particular class of situations that is *quantitatively delimited*. The ill formedness of the following dative reflexive constructions may be accounted for by the fact that both the bare plural 'manzanas' (apples) and 'reconocer el error' (regognize the error) in (41a) and (41b), respectively are not quantized entities as is the case in the examples in (39b)-(40b):

(41) a.   *El niño *se*   comió manzanas
               the child refl   eats   apples
      b.   *Maria   *se*   reconocío   el   error
               Maria   refl   recognized   the   error

Since the HD dative reflexive construction corresponds to the Spanish one with respect to aspectual properties, it does not come as a suprise that in HD the same restrictions apply: in HD the presence of objects that are not quantitatively delimited gives rise to an ungrammatical result:

(42) a. HD/SD *Het kind   eet   *zich*   appels
               the child   eats   refl   apples
      b. HD/SD *Zij kijkt   *zich*   televisie

	She	watches	refl	television

Conversely, in French dative reflexive constructions denoting consumption or other activities are very restricted and their occurrence is often lexicalized. Nevertheless, Leclère (1976) gives the following examples:

(43) a. Jean *s'* est mangé trois gâteaux
Jean refl has eaten three cakes
b. Paul *s'* est envoyé une fille
Paul refl has send away a girl

Although Leclère does not discuss the aspectual properties of the constructions in (43), he demonstrates that they are excluded with verbs such as *voir* (see) in (44) which belong to the aspectual category of states. We tentatively propose that the same restrictions as in HD and Spanish are true in French. We leave this suggestion for future research.

(44) *Paul*se* voit un document
Paulrefl sees a document

In sum, we have demonstrated that, in analogy with the ergative reflexive construction *se*/*zich* acts as an aspectual marker in another type of reflexive construction, namely the dative reflexive construction in HD, French and Spanish. The data clearly support our claim that in the reflexive construction the aspectual focus is on the end-point or the final state of the entity, or rather, the presence of *se*/*zich* attributes to the state introduced by the event structure of the verb itself. We have supported the claim of Nishida that the aspectual features of the dative reflexive construction are linked to the fact that *se*/*zich* overtly marks a particular class of situations that is quantitatively delimited. A quantitatively delimited situation emerged if (i) the object belongs to the category quantified entities and if (ii) the predicate expresses a delimited situation.

In the following section we are going to discuss in more detail how to account for the aspectual properties of *zich*/*se* in syntax.

4. Motivation for structural configuration

4.1 Prefixes and particles

Similar to the use of *zich* in HD, in SD a telic interpretation can be achieved by means of (i) particles and (ii) prefixes, as is illustrated in (45b) and (46b), respectively. (Note that they are also fully acceptable in HD). Unlike the (a)-sentences, the corresponding (b)-sentences express (i) always an affected object and (ii) a state of affairs that can only be interpreted as having an end-point:

(45) a. SD/HD Jan eet een appel
b. SD/HD Jan eet een appel op
Jan eats an apple up

'Jan eats a (whole) apple completely'

(46) a. SD/HD Jan smeert een boterham
                Jan smears a   sandwich
      b. SD/HD Jan besmeert   een boterham
                Jan BEsmears   a   sandwich

It has been proposed that prefixes and particles such as **be-** and **op** are the heads of an (aspectual) small clause (Mulder 1992, Hoekstra et al. 1987):

(47) a.   sc[boterham **be**] smeer
                 sandwich be smear
      b.   sc[een appel **op**] eet
                 an apple   up   eat

Since prefixes and particles affect the aspectual properties of the construction in the same way as *zich*/*se* in the ergative reflexive and dative reflexive constructions, an analysis that comes to mind is the structural configuration such as outlined in (48) in which *zich*/*se* is the head of an aspectual small clause:

(48) a.   sc[het riet   *zich*] buigt
            sc[*se*   la branche]   casse
                 (refl) the reed   (refl) bends
      b.   sc[een appel   *zich*] eet
                 an apple   refl   eat

The structural configuration in (48), however, raises a lot of problems. We will discuss one particular problem in the next section and we will propose another analysis in which the data mentioned so far, will fit in.

4.2 Motivation for structural analysis

With respect to the analysis in which *se*/*zich* is the head of an aspectual small clause, one problematic question is the following[xvi]. If in Dutch and in French *zich* /*se* is a small clause head comparable to **be-** and **op**, how come **be-** and **op** and *zich*, on the other hand, differ radically in that the former but not the latter cannot be combined with a resultative phrase specifying the end-point of the action, as is demonstrated in (49a) and (49b,c), respectively? Consider the following contrast in HD:

(49) a.   *Jan **be**smeert de   boterham   *kapot*
             Jan BEsmears   the   sandwich   broken
      b.   Het riet buigt *zich* krom
             the reed bends refl   *crooked*
      c.   Jan eet   *zich* een appel *op*
             Jan eats refl   an   apple up

In French, a similar problem shows up, since the ergative reflexive construction can also be construed with prefixed (transitive) verbs such as *s'abêtir* (turn into a moron), *s'agrandir* (become bigger), *s'amaigrir* (become thinner) in which the prefix **a**- specifies the end-point of the action (Labelle 1990: 303).

Since *zich*/*se* combines with resultative adjectives whereas aspectual particles do not it is, in spite of the aspectual similarities, certainly not plausible that *zich* and *se* can also be analyzed as occupying the same aspectual head of a small clause. Clearly a more elaborated structure is needed.

Therefore, we tentatively like to propose the following structures in (50) in which the verb selects an AspPhrase as its complement. This ASP itself takes a small clause as its complement. The NP's *la branche*/*het riet* occupy the subject position of this small clause. For the time being, we tentatively assume that the French *se* is the head of this AspP whereas the HD *zich* occupies the specifier position of this projection, as in (50a) and (50b), respectively (see Hulk&Cornips for a more extensive discussion of the different syntactic positions of *zich* and *se*). Our proposal that *se*/*zich* occupy this (inner)[xvii] AspP wants to account for the observation that *se*/*zich* do not alter the Aktionsart of the verb but it contributes and specifies the already existing aspectual structure of the verb[xviii]:

(50) a.

```
                VP
                |
                V'
                | \
                |  \
                V   ASPP
             casser   |
                     ASP'
                     |  \
                    ASP   \
                     se    SC
                          /  \
                         _    ( Ø )
                    la branche  (en deux)
```

b.

```
                VP
                |
                V'
                | \
                |  \
                V   ASPP
             buigen  / |
                    /  |
                 zich  ASP'
                       |  \
                      ASP   \
                       Ø     SC
                            /  \
                           _    ( Ø )
                       het riet  (krom)
```

In future research we like to link the different structural positions of *se* and *zich* in (50) to the following contrasts between HD and French. Let us first turn to HD. In HD the ergative reflexive can be construed independent of tense and resultative modifiers such as PP's, adjectives or particles:

(51) HD/*?SD   Het   riet   buigt *zich*   (**krom**)
                   the   reed   bends refl   crooked

In French, however, both Labelle and Zribi-Hertz have clearly demonstrated that some verbs only allow the ergative reflexive construction if the 'passé composé' tense is used which loosely speaking asserts the end-point of the process (cf. (52a)) or if a PP is added that specifies a final state (cf. (53a)). It is striking that the corresponding (b)-constructions reject the ergative reflexive. These data clearly suggest that in some cases the possibility of

construing the ergative reflexive construction in French has to be triggered by other resultative modifiers:

(52) a.　　Son état *s'est empiré*
　　　　　　'his/her state of health has become worse'
　　b.　*Son état *s*'empire
　　　　　　'his/her state of health is worsening'

(53) a.　　La　cire　*se*　　coule　*dans*　*le*　　　*moule*
　　b.　*La　cire　*se*　　coule
　　　　　the　wax　refl　flows　in　　the　　　mold

Secondly, another difference between the HD and the French ergative reflexive constructions concerns the auxiliary selection as is demonstrated in (54). The HD ergative reflexive selects the auxiliary *hebben* (have) whereas the French ergative reflexive selects the auxiliary *être* (be). Note that apart from a very few exceptions, almost all verbs with *zich* select obligatory *hebben* both in SD and HD (Everaert 1986). Here, we like to suggest that this difference may be due to the different positions of *zich* and *se* in the AspPhrase but we leave this suggestion for future research (see den Dikken (1995) for an interesting suggestion about the interaction of *se* and AspP with respect to auxiliary selection) .

(54) a. HD/*SD Het　riet　*heeft*　*zich*　gebogen
　　　　　　　　the　reed　has　　refl　bent
　　b.　　　　　La　branche　　*s'*　　*est*　　cassée
　　　　　　　　the　reed　　　　refl　is　　　bent

5. Conclusion

In the first part of this article we have shown that the HD reflexive construction is, just as its French reflexive equivalent, in fact an ergative construction in which the surface subject is the subject of a small clause that occupies the internal argument position of the verb. The ergative status of the reflexive constructions can be demonstrated by the following diagnostics: (i) they allow their past participle to predicate over their surface subject, (ii) they do not allow impersonal passives and (iii) in HD they cannot be embedded under the causative *laten*. Moreover, they also have the semantic properties of ergative predicates: their surface subjects must possess the semantic features necessary to undergo the action of the predicate. They differ from other ergative predicates such as passives in that they are related to transitive verbs that take a Causer and not a (human) Agent as external argument. Also we have demonstrated that *se*/*zich* in the ergative reflexive construction is not an argument.

In the second and third section, we extensively discussed the aspectual properties of both the HD and the French ergative reflexive and dative reflexive constructions, respectively. We have shown that these types of constructions have a specific aspectual interpretation: they focus on the final state of the entity undergoing the change, or rather, in the ergative and dative reflexive construction *se*/*zich* does not alter the Aktionsart of the

verb but it contributes and specifies the already existing aspectual structure of the verb. If accomplishments can be considered as consisting of an activity and a state, the ergative reflexive focusses on the state-part of the event, whereas the corresponding intransitive (without the reflexive) focusses on the activity-part of the event. Consequently, in the ergative reflexive *se/zich* establishes a relation between an entity and a (sub)event, whereas in transitive reflexive constructions *se/zich* relates two entities or argument positions.

We have argued that the aspectual properties of *se/zich* can be accounted for by assuming that a functional projection AspP is selected by the verb. This functional projection itself takes a small clause as its complement. The NP's *het riet/la branche* occupy the subject position. Moreover, we have tentatively assumed that *se* is the head of this projection whereas *zich* is in the specifier position.

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Notes

[i] Heerlen Dutch is the result of a process of language shift with the dialect as the source and Standard Dutch as the target language (cf. Cornips 1994).

[ii] Note for completeness that in French transitive change of state verbs give rise to two other types of counterparts, namely only a reflexive as in (i) and only an intransitive as in (ii). In this article we will focus on the change of state verbs that occur in both constructions.

> (i)   a.   *Le vase brise
>   the vase breaks/is breaking
>   b.   Le vase *se* brise
>   the vase breaks/is breaking
> (ii)   a.   La neige fond
>   the snow melts/is melting
>   b.   *La neige *se* fond
>   the snow melts/is melting

[iii] It must be noted that the ungrammaticality of (7b) is not affected by the fact that the surface subject *het riet* (the reed) is inanimate since the element *zelf* does not carry the feature <+animate>. This is demonstrated both by the PP *uit zichzelf* in (ia) and by the SD/HD reflexive construction with an inanimate surface subject in (ib):

(i)	a. HD/SD	Het	riet	buigt	uit	*zichzelf*
		the	reed	bends	by	itself
	b. HD/SD	Het	probleem	heeft	*zichzelf*	opgelost
		the	problem	has	itself	solved

[iv] Note that the French the causative verb *faire* (let) differs from the Dutch causative *laten* in that it does not necessarily take a regular transitive reflexive construction as its complement. This was pointed out to us by an anonymous reviewer (cf. Zribi-Hertz 1987)

> (i)   La secousse a fait *se* desceller le piton
>   'the tremor has made the hook fall'

[v] Note that this ungrammaticality is in contrast with passive constructions in which the (agentive) external argument is implicitly present (cf. Keyser & Roeper 1984: 407).

[vi] In French unergative intransitive verbs that can be combined with cognate objects only allow impersonal passivization. This distinction is not important here, however, since the verbs in question can clearly be combined with objects in their transitive use.

(i)	a.	Il	a	été	dansé
		there	has	been	danced
	b.	*Il	a	été	brillé
		there	has	been	shined

[vii] The construction in (16a) must not be confounded with the grammatical construction in (i) which is not a passive construction, but an active impersonal sentence in the past present tense. The fact that *se casser* can appear in such an active impersonal construction also supports the ergativity hypothesis, although in French unergative verbs may also occur in this construction under certain conditions (see Hulk 1989).

(i)	Il	*s*	est	cassé	un	verre
	there	refl	is	broken	a	glass

[viii] As can be seen in (i), (16b) has a grammatical equivalent in German (Abraham 1986:7):

(i)	Heute	wird	*sich*	einmal	anständig	gewaschen
	today	becomesrefl	once	propoperly	washed	
	'There will have to be a good wash-up today' (imperative)					

[ix] A third test for ergativity is auxiliary selection. See later section 4.2.

[x] We assume that the semantics of the *by*-phrase impose an agentive interpretation on the implicit external argument which is incompatible with the causative external argument of the ergative reflexive constructions. The exact way in which this may be done has to be made precise in future research.

[xi] Zubizarreta (1987) also argues in favour of the non-argumental status of the French *se* in what she calls anti-causative constructions. Since *se* is an A'-binder with a defective content she analyzes it as a verbal operator. According to Zubizarreta this clitic *se* is inserted in the lexicon and serves as an 'L-externalizer' of the intern argument-variable.

[xii] With respect to temporal aspect, it must be noted that several linguists adopt a more abstract theory of Aspect in which they include also spatial and scalar properties of events.

[xiii] That was in fact also the main point of Lagae's (1990) criticism of Zribi-Hertz who seemed to suggest that such a complementary distribution did exist.

[xiv] Moreover, Labelle shows that in the case of the intransitive construction the process is presented as taking place autonomously. The entity in subject position must have the property to bring about the change. According to her, the entity itself may be linguistically atrributed responsibility for the change and it may be realized as an external argument.

[xv] Note that *zich* in the dative reflexive construction is not an internal argument since it can not be construed with the element *zelf* (self) in HD (cf. 2.1):

	HD/SD	*Zij	drinkt	*zichzelf*	een	bier
		She	drinks	herself	a	beer

(i)

[xvi] These problems have been pointed out to us by two anonymous reviewers. One of them is the following wich we leave for future research. If *se* is a kind of particle in French why are other particle constructions impossible in French?:

		*Jean	mange	une	pomme	"**up**"
		Jean	eats	an	apple	RES. PART

(i)

Secondly, why are some resultative constructions impossible and some others possible in French, as in (iia) and (iib) respectively?:

(ii)	a.	*La branche	(se)	casse	"crooked"
		the reed	refl	bends	RES. ADJ.
	b.	La branche	(se)	casse	en deux
		the reed	refl	bends	RES. ADJ.

[xvii] As opposed to an outer AspPhrase which has also been proposed in literature (cf. Hulk&Cornips 1994).

[xviii] We assume a similar structure for the dative reflexive construction.