

Assessing Unaccusativity and Reflexivity Using focus alternatives to decide what gets which theta role

Dominique Sportiche
UCLA

Abstract: *In reflexive constructions, two arguments corefer. This makes it hard to decide which argument bears which theta role, and consequently to assess whether unaccusativity is involved. A new test is proposed using focus alternatives, which overcomes this difficulty and can be also used to assess reflexivity strength.*

Keywords: *unaccusativity, reflexivity, reflexive clitic, focus alternatives*

Passive structures are analyzed as involving a predicate which, when appearing in a simple clause with a surface syntactic subject, takes this subject as an underlying object (and more generally does not take it underlyingly as its syntactically highest thematic argument). Famously, this mismatch between underlying and surface grammatical relations was extended in Perlmutter 1978 or Burzio 1986 to structures involving (superficially) morphologically simple predicates, henceforth called unaccusatives, such as *go*, *arrive*, *exist* (see Levin and Rappaport 1994 for extensive discussion) which (superficially) take a single DP argument.

However as Passive structures demonstrate, structures containing predicates with two DP arguments could in principle be unaccusative too.

How do we know that a simple sentence like (1) is not unaccusative in the sense above?

(1) John fired Bill

An a priori derivation could have *John* as underlyingly lower than *Bill*, and move past *Bill* to a higher position than *Bill* (for example a smuggling derivation in Collins's 2005 sense as e.g. *Bill fire John* → [[fire John]-i Bill t-i] → John-j [[fire t-j] Bill t-i]).

One may be tempted to argue that such a sentence fails known unaccusativity tests, but given the (current or possibly principled) absence of a general property identifying all unaccusative predicates, this is not sufficient as this may merely diagnose that unaccusative predicates do not form a uniform class (known unaccusative tests already distinguish between at least two classes, see e.g. Levin and Rappaport 1994, and could be irrelevant for a third class including superficially simple transitive constructions) or that a general test applying to all unaccusatives has not yet been identified.

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For such a sentence however, an unaccusative is implausible on other grounds. For example, *John* and *Bill* have different semantic functions (*John* is an Agent and *Bill* is a Theme) and Agents can be shown to be underlyingly syntactically higher than Themes (as shown by e.g. compound formations: ok employee_{THEME}-firing, *employer_{AGENT}-firing, possible idioms, lack of reconstruction for binding properties etc..).

This type of consideration underdetermines what happens in Reflexive constructions such as the following in English or in French:

- (2) John fired himself
- (3) Jean s'est renvoyé
Jean REFL is fired
'John fired himself'

In these examples, the Theme argument and the Agent argument have the same referent. While a Theme can indeed be shown to be underlyingly lower than an Agent in a non reflexive transitive case, it is not obvious which DP gets which theta role on the surface: the DP *Jean* could equally well be the Theme or the Agent (or both under certain analyses). Thus it may well be that an unaccusative derivation akin to the one described above for English can or must apply just in case the Agent is a reflexive form. This option is illustrated e.g. by Rooryck and vanden Wyngaerd's (somewhat more complex) 2011 proposal which attributes an unaccusative analysis to Dutch seemingly simple object reflexive *zich* (to which I will return below).

This is in large part why the question of whether Reflexive constructions are unaccusative e.g. in French or in Dutch - has generated controversy and is not settled.

Thus Reinhart and Siloni (2005) argue that (Hebrew *hitpa'el* reflexives,) French and more generally Romance reflexive *se-si* constructions (as in (3) above) are not unaccusative (joining Grimshaw 1982, Wehrli 1986, Chierchia 1989, Reinhart 1996, Labelle, 2008) while Bouchard (1984), Marantz (1984, Kayne (1988), Grimshaw (1990), Sportiche (1990), Pesetsky (1995) and Rooryck and vanden Wyngaerd (2011) argue that French reflexive *se* constructions are unaccusative (and beyond French e.g. Lian-Cheng 1998 for Mandarin Chinese). The question has not been raised in English, possibly because a structural analogy is assumed between (1) and (2), without argument however.

In what follows I will briefly discuss why an unaccusative analysis is a priori attractive for French, why the grounds on the basis of which Reinhart and Siloni (2005) reach their conclusion are unconvincing. I will next show that this conclusion is nevertheless correct by introducing a new way to help settle this question, which clearly sides with them in showing that reflexive constructions in French with the clitic *se* are indeed in general not unaccusative. On the way, I will discuss how such a diagnostic could apply to English too. I will then discuss briefly (i) what this means for the properties that made unaccusativity appealing for French *se* reflexives and (ii) how this tool can further distinguish among various types of reflexive constructions.

1. Assessing Unaccusativity of Reflexives

Consider the following examples:

- (4) a. Jean *se* regarde
John himself looks-at
b. Jean *se* croit idiot
John finds himself stupid

In French or Romance, the presence of *se* cannot be analyzed as turning a predicate into a reflexive relation by removing a syntactic argument of the verb and reassigning two theta roles to a single argument (as many, including Reinhart and Siloni (2005), note – they argue *se* removes a Case property but crucially does not trigger object to subject movement) since the two arguments understood as coreferential need not be coarguments of the same predicate. This is seen in e.g. (4b), with one argument an argument of *idiot* and the other of *croire*. Following much earlier literature (e.g. Kayne 1975), and more recently Kayne 2000, and Sportiche 2010, I take it that *se* can be analyzed as a clitic DP argument of the verb.

If *se*-reflexives are unaccusative, the surface subject in (4a) is not the highest syntactic argument of *regarder* / *look-at*. Rather, *Jean* must be bearing a lower (internal¹) theta role. It must be then that *se* is the highest argument of the verb. In other words, the derivation of this sentence must proceed as follows, where *se* binds *e* (as a trace), and *Jean* has moved from *t* (see Sportiche 1990, for further justifications):

- (5) Jean, *se*_k [*e*_k regarde *t*_j] (with *j*=*k*)

There is *prima facie* excellent independent evidence for such a derivation having to do with regularities found in the French (and Romance) systems which we briefly mention below, but which ultimately proves insufficient.

1.1 Evidence for the unaccusativity of reflexive structures

Extending the empirical basis to go beyond reflexives and include other French constructions in which *se* is involved shows why an unaccusative analysis is plausible: *se* is also found in middles (6a) and inchoatives/anticausatives (6b):

- (6) a. on a vendu ces livres → ces livres *se* sont vendus
they sold these books → These books sold
b. le vent a renversé la palissade → la palissade *s'est* renversée
The wind tipped over the fence → the fence tipped over

These other constructions illustrate the following properties of *se*-constructions:

¹ By “internal argument”, I just mean an argument which is not the highest of its predicate in the ordinary sense.

- (7) a. the addition of *se* removes the expression of what would otherwise be the highest argument of the thematic complex signaled by the verb, and never any other argument.
 b. the perfect aspectual auxiliary used is always *be*, never *have*.
 c. the participle obligatorily agrees with the superficial subject of the clause.

Reflexives aside, these *se* constructions are, uncontroversially, unaccusative constructions as the superficial subject is an internal argument.² And the last two properties are explained by the fact that these constructions are unaccusative. Indeed (i) there is no non unaccusative VP in French using *be* as aspectual auxiliary (apart possibly from reflexives) and (ii) in transitive structures, participle agreement in French only occurs with direct objects, and such agreement is obligatory only if a direct object moves to subject position (see Sportiche, 1990, for detailed discussion).

If reflexive constructions are unaccusative, we can immediately make sense of the fact that reflexive constructions also:

- obligatorily use *be* as perfect auxiliary (like other *se* constructions)
- require participle agreement when the direct object is “reflexivized”

1.2. An insufficient argument against an unaccusative analysis of reflexive *se*-constructions

The difficulty of deciding what the correct analysis is for *se*-reflexives is illustrated by the unconvincing character of Reinhart and Siloni’s 2005 argument against an unaccusative analysis of *se* reflexive.

Unaccusative predicates typically display two properties, exemplified below in (8), taken as diagnostic of (that is, as sufficient conditions for) unaccusativity: the possibility of impersonal constructions with inverted subject (8b), and *en*-placement from this inverted subject (8c) – the main original motivation for postulating an unaccusative analysis:

- (8) a. Plusieurs enfants arrivent
 Several children arrive
 b. Il arrive plusieurs enfants (*impersonal*)
 There arrive several children
 c. Il en arrive plusieurs (*en-placement*)
 There of-them arrive several

Like unaccusatives, and as expected, middles and inchoatives/ anticausatives also allow impersonal constructions with inverted subject, and *en*-placement from this inverted subject:

² For exactly the same (well known) reason that reflexive *se* cannot be seen as removing a syntactic argument in (4b), middle *se* cannot be either. Thus in the middle: *ce genre de choses, ça se juge idiot* (/ lit. *these kind of things, they judge stupid* / *these kinds of things are judged stupid*), the superficial subject is an argument of *idiot* not of *juger*.

- (9) a. Plusieurs livres se sont vendus / les palissades se sont renversées
 they sold several books / the fences tipped over
 b. Il s'est vendu plusieurs livres / il s'est renversé plein de palissades
 (*impersonal*)
 There themselves sold several books / there tipped over lots of fences
 c. Il s'en est vendu plusieurs / il s'en est renversé plein (*en-placement*)
 There of-them sold several / there of-them tipped over lots

But unlike unaccusatives, reflexive constructions mildly disallow impersonal constructions with a postverbal subject, and strongly disallow *en*-placement from such postverbal positions – a property Reinhart and Siloni (2005) take to be a necessary property of unaccusatives. The following comparison illustrates this:

- (10) a. Plusieurs hommes se rasent
 Several men themselves shave
 b. ??Il se rase plusieurs hommes (*impersonal*)
 There themselves shave several men
 c. * Il s'en rase plusieurs (*en-placement*)
 There of-them shave several

Why is there a difference between unaccusatives, middles and inchoatives / anticausatives on the one hand, and reflexives on the other? This seems unexpected on an unaccusative analysis for reflexives. However, a careful assessment of what is expected may make this outcome unsurprising. First the moved *en* must bind its trace inside the postverbal DP: this means this DP must remain syntactically lower than (that is, c-commanded by) *en*. The fact that these constructions are reflexive also needs to be taken into account: *se* can be interpreted as a variable bound by its antecedent.³ This requires semantic binding of *se* by the superficial subject, which in turn requires c-command, suggesting that *se* must be syntactically bound by its antecedent. These two requirements could plausibly yield contradictory demands if *se* is higher than *en*⁴ and the object must both be lower than *en* and higher than *se* making the resulting sentences ill-formed. The deviance of (10b) shows that the postverbal DP is normally too low to bind *se*. The fact that it is not as deviant as (10c) suggests that a level of attachment may be marginally available for this binding to take place (as is also the case with inverted subjects of unergatives- see Sportiche, 1990)⁵, but is excluded in the latter as the postverbal DP must remain low enough so that *en* can bind its own trace. To discount this argument, it

³ As can be seen in e.g. ellipsis constructions, see footnote 10.

⁴ It is actually difficult to show that this is true. If the current treatments related to the Person Case Constraint prohibiting combinations such as **me lui*, *te lui*, *se lui* are on the right track (see e.g. Anagnostopoulou, 2005), *me/te* (and thus *se*) must be higher than *lui*, which in turn may be shown to be higher than *en* as shown in periphrastic V-V causative structures for example, in which *en* can appear on the lower V in contexts excluding *lui* (e.g. Il lui a fait en livrer trois à Pierre / John made him deliver three of them to Peter / ??il lui a fait lui en livrer trois / John made him deliver three of them to him).

⁵ A reviewer asks why the following sentence is perfect even though the reflexive is bound by a postverbal subject too: (i) Marie fait se raser Jean / Mary makes John shave himself. In causatives such as (i), subject VP inversion is due to preposing of a verbal projection (see e.g. Kayne, 1975 and most subsequent literature) and not to low attachment of the subject.

would have to be shown either that the c-command relations do not have to be as described, or that *se* cannot be analyzed as Clitic DP, neither of which is known to be true.

Furthermore, the assumption that inversion and *en*-placement is a necessary property of unaccusative verbs is too strong. Thus the verb *aller/go* or *aller à/ go to*,⁶ which has the archetypal semantics of unaccusative verbs, selects aspectual *be*, whose participle obligatorily agrees with a preverbal subject and can modify a nominal (e.g. *tous ceux déjà allés en Italie/ all those already gone to Italy*) fails both (* *il est allé plusieurs enfants au musée / * il en est allé plusieurs au musée*). This indicates the presence of an additional variable that could be responsible for the failure of *en*-placement (or the relative failure of subject inversion) with reflexives if it is not due to the contradictory binding requirements evoked above.⁷

1.3. A new argument that reflexives are not unaccusative

I will now present a new diagnostic based on the computation of focus alternatives and show why it argues against the straight unaccusative analysis.⁸ This means that Reinhart and Siloni (2005) and their predecessors (e.g. Grimshaw 1982, Wehrli 1986, Chierchia 1989, Reinhart 1996) reached a correct conclusion. Consider the following sentences:

- (11)a. Seul Pierre se trouve intelligent
- b. Only Pierre finds himself smart

The focus particles *only* or *seul* associates with the superficial subject *Pierre*. The focus particle *seul* meaning contribution is that no contextually salient alternative to Pierre satisfies the property denoted by the VP. But what is this property? In such cases as (11a), which contain a (syntactically) bound reflexive, this VP can be interpreted in two ways illustrated by the two distinct ways in which (11a) could be denied:

- (12)a. Non, moi aussi je me trouve intelligent / No, I find myself smart too
- b. Non, moi aussi je le trouve intelligent / No, I find Pierre smart too

The ordinary meaning (11a) is unique and always reflexive: Peter finds himself smart. But the focus meaning is ambiguous: there are two ways of computing the alternatives to this reflexive reading:

- 1st: Pierre is the only one to have a reflexive property
- 2nd: Pierre is the only one to find Pierre smart

Under (12a), the VP property being denied is (13a). Call this a sloppy reading, as is customary. Under (12b), it is (13b), naturally called the strict reading.

⁶ Thanks to Nora Boneh for pointing this out to me.

⁷ Rooryck and vanden Wyngaerd 2011 (p. 76-77) also suggest that Reinhart and Siloni's argument is not demonstrative as they do propose an unaccusative analysis for reflexives, which we discuss in section 2 below.

⁸ Thanks to Martin Prinzhorn whose remark about German led me to this new diagnosis.

- (13) a. $\lambda x (x \text{ finds } x \text{ smart})$
 b. $\lambda x (x \text{ finds Pierre smart})$

These observations about the focus meanings of reflexive constructions are not new. For French, they are reported in e.g. Schlenker (2005, p.73). The facts about English are reported e.g. in Buring (2005, p.141) as follows:⁹ “If reflexives needed to be semantically bound [i.e. interpreted as bound variables, DS], this latter construal [(12b)] should be out for the reflexive case, given that the reflexive in [(12b)] is syntactically, but not semantically, bound. In other words, [(11b)] ... is predicted to be unambiguous. This, however, does not accord with speakers’ intuitions. While the sloppy reading for [(11b)] is generally preferred, the strict one is clearly judged possible.”

Why these two readings are possible is discussed by e.g. Buring (2005). He proposes that although the reflexive must be syntactically bound, it can be treated semantically either as a bound variable or not (much like a pronoun would be treated in *only Pierre shaves his head*).¹⁰

The strict reading crucially shows that to compute the interpretation of (11a), we can take the reference of the reflexive argument as fixed by its antecedent and constant, and compute alternatives on the antecedent alone. In other words, it is possible to treat the meaning of a sentence like (11a) as if it were expressed by *Only John finds John smart*, before computing alternatives on the focused subject. So doing allows denials with the meaning expressed by *someone else than John finds John smart*.

Note that a felicitous denial of some assertion need not have the same form as this assertion (it suffices that they have the same meaning except for the part that is denied). This can be seen with middle *se*-constructions. Recall that middle *se*-constructions are unaccusative: the superficial subject of a middle can be the argument of another predicate, and it passes the *en*-placement tests on unaccusativity. Consider the middle *se* sentence in (14a):

- (14) a. En Inde, seul le riz se mange avec les doigts
 In India, only rice is eaten with the fingers
 b. * Non, en Chine aussi, le riz se mange avec les doigts
 No, in China too, rice is eaten with the fingers
 b'. * Non, les Chinois aussi mangent le riz avec les doigts /
 No, Chinese people too eat rice with the fingers
 c. Non, en Inde le pain aussi se mange avec les doigts
 No, in India, bread too is eaten with the fingers
 c'. Non, les Indiens mangent aussi le pain avec les doigts
 No, Indian people also eat bread with the fingers

⁹ The original numbering is changed to accord with the text.

¹⁰ That the second option is available may seem surprising at first as most people necessarily treat such reflexives as semantically bound, that is as bound variables in some simple cases of VP ellipsis in English, or in French as Schlenker (op.cit., fn 38) notes, viz. *John shaved himself and Bill did too*, (**shave him=John*), but as e.g. Hestvik, 1995 or Kehler, 2002, documents, (see also Buring, 2005, p.138) strict readings are available in such contexts to some speakers and other cases of strict readings for reflexives are readily available as in e.g. *Bill defended himself before John did* (i.e. *defend him= Bill*).

French *se* middles are interpreted as having an implicit agent that typically can be paraphrased in French by the pronoun *on* with a generic reading. In (14a), the context makes it clear that the agent is a “typical Indian person”. As expected, its truth cannot be denied by (14b or b’) (alternatives on the implicit agent but not on the theme) but can be with (14 c or c’), in which the alternatives are computed on the theme alone exactly as expected, given that we are dealing with an unaccusative structure. In particular we can treat what is asserted as expressed by *a typical Indian person eats only rice with fingers*, which can be denied either by asserting that other things are eaten with fingers with another unaccusative middle construction as in (14c), or that typical Indian people eat other things with fingers with a transitive structure (14c’) (and it could also be denied with a passive structure...). That is, there is no need to deny an “unaccusative assertion” with an “unaccusative denial”: as stated above, felicitously contradicting an assertion is primarily a matter of content which underdetermines what form can deliver it.

Superficially, the only difference between such *se*-middles and reflexive *se*-middles is the reference of *se* (generic with these middles, coreferential with the non *se* argument in reflexives).

Consequently, just as (14c’) is a felicitous denial of (14a), we would fully expect (15) to be a denial of (11a or b), were it unaccusative.

What would we expect if (11a) was unaccusative? If it were, it should be possible to treat the meaning of a sentence like (11a) as if it were expressed by *John finds only John smart*, in which, just like in the case of the sloppy reading, the reference of *se* is fixed by its coreferential argument and constant, and just like in middles, alternatives are computed on the (superficial) focused subject (which is the experiencer, “logical” subject of *find*). This would predict that (15) is a possible denial:

- (15) Non, Pierre me trouve intelligent moi aussi / No, Peter finds me smart too.

Strikingly, and this is the crucial new observation, this denial of (11a) (or (11b)) is not an option. This shows that (11a) (and more generally similar reflexive constructions) cannot be unaccusative.

Does this conclusion apply to English? It should be noted that most speakers (in English, or in French for that matter) find the sloppy reading to be more easily available than the strict one. As a reviewer notes, some English speakers do not seem to allow the strict reading (contrary to what Buring 2005 states).¹¹ Why is unknown.¹² In a worst case scenario, the conclusion that

¹¹ I have found that some speakers who find the strict reading difficult in (11b) allow it in *John is the only one who finds himself smart*. The argument of the text against unaccusativity could be made equally well with such examples. See also fn 21 for a related speculation.

¹² A reviewer wonders whether the reflexive in the strict reading cases (for speakers who allow them) is emphatic or necessarily focused. The answer is negative: no focal stress on the reflexive is necessary and the type of reading available is simply not a reading associated with emphatic or focused reflexives, see Ahn (2010, to appear). Thus (for speakers allowing the strict

reflexive constructions cannot be unaccusative would hold only for speakers who allow the strict reading. It should be noted however that the strict reading made prominent by (12b) is deemed less deviant than the strict reading made prominent by (15). Since the contrast seems to hold for all speakers, this conclusion may still be generally warranted.

Finally, let it be noted that there is no *principled* bar in having such a reading generated because say, the reflexive ends up higher than the antecedent to the reflexive. Thus in the following case where the superficial subject has raised from the embedded clause:

(16) Only John seemed to himself to be sick

It is possible for some speakers (although not for all – a necessary condition being that a speaker must accept strict readings with reflexives) to construct a strict reading meaning:

(17) Only John seemed to John to be sick

and to deny it with the first sentence (which is, from the present point of view, equivalent to the second):

- (18)a. No, Mary also seems to John to be sick
- b. No, it seems to John that Mary is sick too

1.4. Further Predictions and New Puzzles

This conclusion now raises the questions for other *se*-constructions in particular inchoatives/ anticausatives (and other *se*-constructions not mentioned here). Checking these predictions would require first selecting among various analytical options for inchoatives/ anticausatives, e.g. the widely held analysis of *se* as an argument suppressor vs. Homer and Sportiche's 2011 alternatives taking these constructions as involving non agentive causal reflexive or middle causal constructions. Justifying such a choice goes well beyond the scope of these short remarks.

In addition, the conclusion that *se*-reflexives are not unaccusative raises the question of what some of the properties we discussed and which are classically taken to be sufficient for unaccusativity actually diagnose. In particular,

- (i) Why do reflexive constructions consistently select the aspectual auxiliary *be*¹³ and more generally what governs the *have/be* alternation in French? This is particularly interesting in view of the (reasonable) claim that in Italian or Dutch for example, selecting *be* normally entails being unaccusative. The behavior of reflexive constructions probably provides an important clue bearing on auxiliary selection;¹⁴ (ii) what do French (and Romance) *se* constructions share?

reading) (11b) can be an answer with only focus on *only John* to the question *Who finds John smart?*

¹³ Charnavel 2008's work on the "surcomposé" showing that *se* constructions and unaccusatives actually function differently regarding auxiliary choice is particularly significant in this respect.

¹⁴ One aspect that reflexives share with unaccusatives is obligatory participle agreement, suggesting that the object moves by A-movement (to subject or, in reflexives, to the *se* position).

(iii) Why must reflexive *se* link to an internal argument? (iv) Why can't non reflexive *se* (e.g. middles and anticausatives/inchoatives) link to (or suppress) an internal argument? (v) Why is participle agreement obligatory in direct object reflexives? Some of these questions are addressed in Sportiche 2010.

2. Assessing Reflexivity, and Unaccusativity

2.1. Dutch *zich* and *zichzelf* and French *se*

Further illustrating the current relevance of the debate regarding the proper analysis of reflexives, and the usefulness of the focus test, consider Rooryck and vanden Wyngaerd 2011's approach. They also suggest (op. cit. p. 76-77) that Reinhart and Siloni's argument is not demonstrative (on different grounds than those discussed here) and they do propose an unaccusative analysis for French *se*-reflexives, as well as for Dutch *zich* reflexives. For the following sentences:

- (19) a. Jean *se* rase
John shaves himself
b. Jan *scheert* zich
John shaves himself

They put forth the following analysis and derivations (identical for the two languages except for the fact that *se* moves), in effect an unaccusative cum possessor raising analysis:

- (20) a. [rase [se [Z [P Jean]]] → Jean se [rase+Z+P [se [Z [P Jean]]]]
b. [scheer [zich [Z [P Jan]]] → Jan [scheer+Z+P [zich [Z [P Jan]]]]

in which *Jean/Jan* inalienably possesses *se/zich* (meaning something like self), a relation mediated by a (possession) head Z, P a preposition (with both heads incorporating into the verb).

What does the focus test tell us about such an analysis as (20a) for French given that *Seul Jean s'est rasé/Only John shaved himself* does allow a strict reading? Notice first that strict readings are not allowed in cases of inalienable possession parallel to (20a). Consider the following, where inalienable possession is signaled by the lack of visible possessor in the object DP:

- (21) a. Seul Jean a levé le bras
Only John has raised the arm
'Only John raised his arm'
b. *Non, Pierre a levé le bras de Jean aussi
No, Peter raised John's arm too.

Just like sentence (19a), sentence (21a) is, or can be, interpreted agentively. If the strict reading was possible, we should be able to take it to mean *Only John raised an arm John inalienably possesses* and deny this with the sentence (21b) meaning *No, Peter too raised an arm John inalienably possesses* (much like *Seul Jean se rase = only Jean shaves the self that Jean inalienably possesses* can be denied by

Non, Pierre le rase aussi = *No, Peter also shaves the self that Jean inalienably possesses*). But this is not possible. At a minimum then, we cannot take *se* in (19a) to be inalienably possessed.¹⁵ But a broader point can be made. Could we maintain an unaccusative analysis with alienable possession? The answer seems negative for the same reason. In a denial such as *Non, Pierre aussi rase Jean*/No, Peter too shaves John, there is no reason to assume any possession relation (e.g. between *Jean* and *Pierre*). How then could this be a denial of a proposition asserting (among other things) a possessive relation? This shows that (19a) cannot **only** be analyzed as unaccusative cum possessor raising.

This is in part compatible with what Rooryck and vanden Wyngaerd (2011) conclude, namely that with some verbs, some simple transitive-looking reflexive cases of the (19a) type are structurally and semantically ambiguous.¹⁶ For example, the French form in (22a) is ambiguous between an agentive reading in (22b) and a non agentive in (22c):

- (22)a. *Jean s'est blessé*
 b. John hurt himself (agentive)
 c. John got (himself) hurt (non agentive)

(22a) thus could receive two distinct analyses: a simple transitive analysis corresponding to the reading (22b), and, if Rooryck and vanden Wyngaerd (2011) are right, an unaccusative cum possessor analysis for the reading (22c). Given the text argument based on focus alternatives, we expect that the strict reading should be available only for the agentive reading. And indeed, as expected, the French *Seul Jean s'est blessé* (*Only John se hurt*) allows a strict reading only under an agentive reading (which, as we have seen cannot be unaccusative).

Turning back now to (19a) (*Jean s'est rasé*), it is unambiguous as it does not display a non agentive reading. Given our discussion, it cannot in fact be analyzed as in (20a):^{17,18}

In other words, French reflexive constructions are in general not unaccusative.

Further it is not even clear that the unaccusative cum possessor raising is right for the non agentive case of (22a) with reading (22c). Indeed, the non agentive meaning of (22a) requires that John somehow be "responsible" for what happened to him as noted in Homer and Sportiche 2011. So the following French examples are infelicitous:

- (23)a. Context: Jean is dead.
 Sentence: *Jean s'est coupé*
 John got (himself) cut

¹⁵ See below for further discussion of this point.

¹⁶ Thanks to Johann Rooryck and Guido and vanden Wyngaerd for discussion on this point.

¹⁷ This calls into question Rooryck and vanden Wyngaerd's attribution of the deviance of (10c) repeated here together with their analysis of it:

(ii) *Il s'en rase plusieurs* = *se + en* [*rase+Z+P* [*se* [*Z* [*P* [*plusieurs en*]]]]
 to *en* being extracted from a PP (independently of the fact that it is not clear why this is excluded given that the P is incorporated, thus allowing *Jean* to move in (20a)).

¹⁸ This also shows that *raser/shave* is different from *blessier/hurt*, which could be related to their different internal structure with *blessier* a causative, *raser* is not - cf. *have a shave*).

- b. Context: Jean was unconscious in the trunk of a car
 Sentence: Jean s'est tué en voiture
 John got himself killed

In each case, Jean can't be responsible for what happened to him (as either he is dead, or he is unconscious and cannot influence his fate). So at the very least, the structure of (22a) must be a bit richer than what (20a) provides to explain this, and is thus unlikely to be unaccusative.

Turning now to Dutch, this crucial argument against an analysis of (19b) as (20b) does not carry over, as the focus version of (19b) in Dutch¹⁹ given in (24a) does not allow a strict reading. Its truth cannot be denied with (24b).

- (24) a. Alleen Jan scheert zich
 Only John shaved himself
 b. Nee, ook Piet scheert Jan
 No, Peter too shaved John

That *zich* is deemed to be inalienably possessed makes the analogy with (21) plausible. But note the following with inalienable possession (signaled again by the lack of visible possessor in the object DP):

- (25) a. Seul Jean s'est frappé le bras
 Only John se hit the arm
 'Only John hit his arm'
 b. Non, Pierre lui a frappé le bras aussi
 No, Peter him hit the arm too
 'No, Peter hit John's arm too'.

Here, the denial in the second sentence is fine (at least under an agentive reading) showing (as expected when *se* is involved), that the strict reading is available. This casts doubts on inalienable possession *per se* being responsible for the unavailability of the strict reading. Still open however is the difference between *zich* and *se*.

A clue may come from contrasting *zich* and *zichzelf*. Indeed, an equivalent of the above difference between the behavior of *zich* and *se* is reproduced with pairs involving verbs allowing either a full reflexive (*zichzelf*) or a non reflexive pronoun (*zich*) as direct object, which get the readings indicated: *zichzelf* allows a strict reading, unlike *zich*.

- (26) a. Alleen Jan heeft zichzelf gewaassen ambiguous strict/sloppy
 Only John has himself washed
 b. Alleen Jan heeft zich gewaassen non ambiguous sloppy only
 Only John has himself washed

This difference correlates with another difference discussed in Lidz 2001. Lidz notes that while *zichzelf* can be used to refer to a statue of Jan in (26a). Just

¹⁹ Thanks to Riny Huijbregts, Hilda Koopman and Jos Telling for help with the Dutch examples.

like we can refer to a statue of John by using the name John, the reflexive *zichzelf* can refer to a statue of its antecedent's referent, so called "proxy reading". But *zich* can't be so used in (26b). This illustrates the fact that the referent of *zich* must be identical to the referent of its antecedent, not merely able to be designated by the same expression. A "stronger reflexivity" is involved. This stronger identity requirement could be exactly what blocks the strict reading with *zich*, precisely because it is not possible to paraphrase the meaning of (26b) as "Only John washed John".²⁰

If correct, one prediction that this correlation makes is indeed right: French *se*, which behaves like Dutch *zichzelf*, does allow proxy usages: *Jean se lave* can refer to a situation in which Jean is washing a statue of himself.²¹

2.2. Beyond French *se*

Deciding against an unaccusative analysis of French *se*-reflexive (or possibly English X-self reflexive constructions) is possible precisely because they allow strict readings under the focus alternative diagnostic test. But not all semantically reflexive constructions do as seen with *zich*. This is also true in English. Compare the following two examples (for the speakers who allow strict readings in the first one):

- | | | |
|--------|--------------------------|------------------------------------|
| (27)a. | Only John washed himself | (possibly) ambiguous strict/sloppy |
| b. | Only John washed | non ambiguous sloppy only |

(27b), call it a silent object reflexive typically allowed with "grooming" verbs, only allows a sloppy reading. This means the reflexivity of the latter cannot be ignored to get a strict reading under focus alternatives. These behave like Dutch *zich* constructions: they may well be unaccusative or allow an unaccusative derivation. Now (27b) (or (26b)) does not allow a denial of the sort "no, John washed me too", which may *prima facie* argue against the possibility of an unaccusative derivation. However, this could be because strict readings are simply not available for this type of reflexive constructions due to the stronger kind of identity required with the antecedent.

As a last note, Reinhart and Reuland (1993) lexically mark the verb in (26b) as [+reflexive]. Reinhart and Siloni (2005) take Hebrew *hitpa'el* reflexives to also be lexically reflexive and they indeed behave like the corresponding Dutch example (26b):²²

- | | | |
|--------|---------------------------|-----------------------------|
| (28)a. | aq rani hitraxec | non strict/sloppy ambiguity |
| | only rani washed-hitpa'el | |
| | Only Rani washed herself | |
| b. | Lo, gam 'ani hitraxacti | |

²⁰ The behavior of *zich* is sometimes described as being obligatorily "de se" which we refrain to do here because the standard notion of *de se* readings (perhaps in need of revision) requires being in an attitude context which is not the case here in any simple sense (but see Reuland and Winter, 2009).

²¹ The variation observed among English speakers regarding the availability of the strict reading may parallel these data if it correlates with the option of using the reflexive x-self in proxy readings, as not all speakers allow such readings as easily as each other.

²² Thanks to Hagit Borer for help with the Hebrew examples.

- no, also I washed-hitpa'el
 c. *lo, gam 'ani raxacti 'oto
 no, also I washed him

Thus, while DPs such as *himself* or *zichzelf* allow weaker reflexivity, Dutch *zich*, or *hitpa'el* morphology or silent objects as in (27b) do not. It is to be hoped that the nature of the morphology signaling reflexivity and its syntactic position is relevant but nothing simple emerges from a quick crosslinguistic survey. Thus French *se* allows weaker reflexive readings (even though it is underspecified, see Kayne, 2000). As for Mandarin Chinese²³, which allows reflexive readings with a bare reflexive DP (*ziji*), or with a preverbal particle *zi* reminiscent of French *se*, they do not allow strict readings with either:

- (29)a. Zhangsan fen le ziji non ambiguous
 Zhangsan burn ASP self
 `Zhangsan burned himself.'
 b. Zhangsan zi-fen le non ambiguous
 Zhangsan REFL-burn ASP
 `Zhangsan burned himself'

And neither does *ta-ziji* (*Zhangsan fen le ta-ziji* / *Zhangsan burn ASP himself* / *Zhangsan burned himself*) even though it comprises both a self particle and a pronoun, on the *himself/zichzelf* model and minimally contrasts with bare *ziji* from a morphological standpoint. Underspecified DPs such as French *se* (see Kayne, 2000) do not, while underspecified DPs such as Dutch *zich* (see Reinhart and Reuland 1993) do, when object of certain verbs.

3. Conclusion

The focus alternative diagnosis provides a tool to assess unaccusativity of reflexive constructions, as well as strength of reflexivity. To explain away the initial puzzle about the properties of the French *se* reflexive constructions, one alternative implied that they had to be unaccusative constructions. We now see that they cannot be. This in turn leaves unresolved questions revolving around auxiliary choice or participle agreement in French and linguistic variation in the properties of reflexive constructions.

4. References

- Ahn, Byron. To Appear. External Argument Focus and Reflexive Syntax. In *Coyote Papers: Working Papers in Linguistics*.
 Ahn, Byron. 2010. *More than Just Emphatic Reflexives Themselves: Their Syntax, Semantics and Prosody*. Master's Thesis. UCLA.
 Anagnostopoulou, Elena. 2005. Strong and weak person restrictions: A feature checking analysis. In *Clitic and Affix combinations: Theoretical perspectives*, ed. Lorie Heggie and Francisco Ordoñez, 199-235. Amsterdam: John Benjamins.

²³ Thanks to C-T James Huang and Audrey Li for help with the Chinese examples.

- Bouchard, Denis. 1984. *On the Content of Empty Categories*, Foris, Dordrecht.
- Büring, Daniel. 2005. *Binding Theory*. Cambridge University Press.
- Burzio, Luigi. 1986. *Italian Syntax: A Government-Binding Approach*, Dordrecht: Reidel.
- Charnavel, Isabelle. 2008. L'alternance *avoir été/être eu* dans les auxiliaires du passé surcomposé en français : un nouvel argument pour le caractère syntaxique du morphème *se*, in *Proceedings of the 2008 Annual Conference of the Canadian Linguistics Association*.
- Collins, Chris. 2005. A Smuggling Approach to the Passive in English. *Syntax*, 8.2, 81-120.
- Grimshaw, Jane. 1982. On the lexical representation of Romance reflexive clitics. In Joan Bresnan, ed., *The mental representation of grammatical relations*. Cambridge, MA: MIT Press.
- Hestvik, Arild. 1995. Reflexives and Ellipsis, in *Natural Language Semantics*, Volume 3, Number 2, 211-237.
- Homer, Vincent and Dominique Sportiche. 2011. Clitics in French Causatives: Wait and See Paper presented at GLOW 34. April 28. University of Vienna, Austria.
- Kayne, Richard. 1975. *French Syntax*. Cambridge, MA: MIT Press.
- Kayne, Richard. 1989. Facets of Romance Past Participle Agreement, in P.Benincà ed., *Dialect Variation and the Theory of Grammar*, Foris, Dordrecht, 85-103
- Kayne, Richard. 2000. Person Morphemes and Reflexives in Italian, French and Related Languages. *Parameters and Universals*. 131-152. Oxford: Oxford University Press
- Kehler, Andrew. 2002. *Coherence, Reference, and the Theory of Grammar*, CSLI Publications.
- Labelle, Marie. 2008. The French reflexive and reciprocal *se*, in *Natural Language and Linguistic Theory* 26(4), 833-876.
- Levin, Beth and Malka Rappaport-Hovav. 1994. *Unaccusativity: At the Syntax-Semantics Interface*. Cambridge, MA: MIT Press.
- Lian-Cheng Chief. 1998. Mandarin Intransitive Reflexive Verbs and the Unaccusative Hypothesis, in *Language, Information and Computation* (PACLIC12), 18-20 Feb 1998, 48-59.
- Lidz, Jeffrey. 2001. Condition R, *Linguistic Inquiry* 32.1:123-140.
- Manzini, Rita. 1986. On Italian *Si*, in H. Borer (1986), pp. 241-262
- Marantz, Alec. 1984. *On the Nature of Grammatical Relations*, MIT Press, Cambridge, Mass.
- Perlmutter, David M. 1978. "Impersonal passives and the Unaccusative Hypothesis". *Proc. of the 4th Annual Meeting of the Berkeley Linguistics Society*. UC Berkeley. pp. 157-189.
- Pesetsky, David. 1995. *Zero Syntax. Experiencers and Cascades*, The MIT Press, Cambridge, Mass.
- Reinhart, Tanya and Eric Reuland. 1993. Reflexivity, *Linguistic Inquiry* 24: 657-720
- Reinhart, T. and Siloni, T. 2005. The Lexicon-Syntax Parameter: Reflexivization and Other Arity Operations. *Linguistic Inquiry* 36: 3, pp. 389-436.
- Reuland, Eric and Yoad Winter. 2009. Binding without identity: towards a unified semantics for bound and exempt anaphors. In *Anaphora Processing and Applications: 7th Discourse Anaphora and Anaphor Resolution*

- Colloquium, DAARC 2009, Lecture Notes in Artificial Intelligence, LNAI*, pp. 69–79, Springer-Verlag, Berlin, 2009.
- Rooryck, Johan and Guido vanden Wyngaerd. 2011. *Deconstructing Binding*. OUP.
- Schlenker, Philippe. 2005. Non-Redundancy: Towards a Semantic Reinterpretation of Binding Theory, *Natural Language Semantics*, Volume 13, Number 1, 1-92.
- Sportiche, Dominique. 1990. Movement, Agreement and Case, in Sportiche (1998).
- Sportiche, Dominique. 1998. *Partitions and Atoms of Clause Structure*, Routledge, London
- Sportiche, Dominique. 2010. French Reflexive *se*: Binding and Merge Locality. <http://ling.auf.net/lingBuzz/001273>.
- Wehrli, Eric. 1986. On some properties of French clitic *se*, In H. Borer (1986), pp. 263-283.