Embedded Predicate Restrictions on Partial Control

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Abstract
Sheehan (2012, 2014) observes that Partial Control (PC) readings arise in Romance (but not in English) only with those embedded collective predicates that can take an overt comitative argument. She argues that this phenomenon, which she calls “fake PC,” arises indirectly from a silent comitative phrase present in the infinitive. Landau (2016a) convincingly shows, however, that her analysis is untenable by pointing out that certain elements associated with overt comitatives are systematically unavailable with PC complements. But if Sheehan's analysis is untenable, we must now explain why the selective availability exhibited by Romance embedded predicates is not also present in English. In this paper, we claim first that there is no such thing as “fake PC,” that is, there is only one kind of PC and this phenomenon is subject to the same conditions in English as it is in Romance; second, that one such condition is that the embedded collective predicate have symmetric reciprocal semantics in the sense of Siloni 2002, 2012 and Dimitriadis 2004, 2008; and third, that the difference between English and Romance boils down to the fact that only reciprocals formed in the lexicon introduce symmetric semantics and that the set of reciprocals formed in the lexicon in English and that formed in the lexicon in Romance are not identical. Additionally, we explore the consequences of these differences for the theory of PC. Specifically, we show that Landau's (2016a,b) characterization of PRO in PC as a group-denoting, syntactically singular but semantically plural pronoun cannot explain the fact that it can only be the subject of symmetric predicates and we also discuss another shortcoming of his approach tied to the mismatch between the morphological and semantic values on PC PRO exhibited by French.
Embedded Predicate Restrictions on Partial Control

J.-Marc Authier and Lisa Reed*

1 Introduction

Wilkinson (1971) and Lawler (1972) originally observed the phenomenon of Partial Control (PC). Descriptively, PC refers to situations in which the reference of PRO includes that of an argument in the matrix clause, but is not exhaustively determined by that argument. Its effects are best observed in sentences like (1a), which contain an infinitive whose predicate requires its subject to denote a plural entity, as (1b) shows.

(1) a. Claire wanted [PROj+ to meet at 6:00/PROj+ to kiss in the kitchen].
   b. The lovers/*Claire met/kissed in the kitchen.

Most of the research on PC has focused on the properties of those matrix predicates that license the phenomenon (see e.g., Landau 2000, White and Grano 2013 for a survey and experimental data, as well as Pearson 2016). One notable exception is Sheehan (2012, 2014), who observes that PC in Romance displays a selective availability based on what kind of collective predicate appears in the infinitive containing PRO. Specifically, she points out that the generalization in (2) seems to hold.

(2) PC readings arise in Romance only with those embedded collective predicates that can take an overt comitative argument.

Thus, as shown in (3) and (4), French se réunir ‘meet’ can, but French s’embrasser ‘kiss’ cannot, take an overt comitative argument and, as a result, only the former can occur in a PC infinitive.

(3) a. Eric s’est réuni avec ses amis.
    Eric SE-is met with his friends
    ‘Eric met with his friends.’
   b. Eric préférait [PROj+ se réunir dans la cuisine].
    Eric preferred SE meet in the kitchen
    ‘Eric preferred to meet in the kitchen.’

(4) a. *Eric s’est embrassé avec Nadine.
    Eric SE-is kissed with Nadine
    * ‘Eric kissed with Nadine.’
   b. *Eric voulait [PROj+ s’embrasser dans la cuisine].
    Eric wanted SE-kiss in the kitchen
    ‘Eric wanted to kiss in the kitchen.’

Because the generalization in (2) does not seem to apply to English, as shown by the English glosses in (4), Sheehan calls examples like (3b) instances of “fake PC” and argues that this phenomenon arises indirectly from a silent comitative phrase present in the infinitive. Landau (2016a) convincingly shows, however, that her analysis is untenable by pointing out that certain elements associated with overt comitatives are systematically unavailable with PC complements. For example, while an adverb like ‘separately’ can modify an overt comitative, as in (5a), it fails to occur in those PC complements alleged to contain a null comitative, as (5b) shows.

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(5) a. Le Président a dit â ses homologues des E-U et de la Russie qu’il préférerait se réunir avec eux séparément.
    preferred SE meet with them separately
    ‘The President told his US and Russian counterparts that he preferred to meet with them separately.’

b. Le Président a dit à ses homologues des E-U et de la Russie qu’il préférerait se réunir (*séparément) avant Noël.
    preferred SE meet separately before Christmas
    ‘The President told his US and Russian counterparts that he preferred to meet (*separately) before Christmas.’

But if Sheehan’s analysis is untenable, we must now explain why the selective availability exhibited by Romance embedded predicates is not also present in English.

In this paper, we will claim first that there is no such thing as “fake PC,” that is, there is only one kind of PC and this phenomenon is subject to the same conditions in English as it is in Romance; second, that one such condition is that the embedded collective predicate have symmetric reciprocal semantics in the sense of Siloni 2002, 2012 and Dimitriadis 2004, 2008; and finally, that the difference between English and Romance boils down to the fact that only reciprocals formed in the lexicon introduce symmetric semantics and that the set of reciprocals formed in the lexicon in English and that formed in the lexicon in Romance are not identical.

2 Symmetric Reciprocals and Partial Control

English has a set of covert reciprocals, like ‘kiss’ in (6a), that bears no special morphology, as well as periphrastic reciprocals like (6b), which involve pairing the verb with an object anaphor.

(6) a. Ron and Sally kissed. (covert, lexical reciprocal)
    b. Ron and Sally kissed each other. (overt, periphrastic reciprocal)

However, English lexical and periphrastic reciprocals are not semantically equivalent (as first observed by Leonard and Goodman 1940; see also Langendoen 1978 and references cited there). That is, only covert lexical reciprocals are symmetric in the sense spelled out in (7), adapted from Siloni 2002, 2008, 2012 and Dimitriadis 2004, 2008.

(7) A reciprocal predicate is symmetric if it expresses a relation between participants that is not based on the accumulation of sub-events but is instead based on an atomic event.

(6b) is vague in being able to refer to an atomic kissing event (with simultaneous participation of Ron and Sally) or to the accumulation of separate kissing events (for example, Ron kissed Sally on the forehead and then she kissed him on the cheek). (6a), on the other hand, can only refer to a single event with symmetric participation; that is, simultaneous kissing on the lips. This can be shown by means of a test due to Siloni 2002 that uses count adverbials that quantify over the number of events a sentence may denote. Thus (8a), which contains a non-symmetric periphrastic reciprocal, can be interpreted in the two ways expressed by the glosses. However, with the symmetric lexical reciprocal ‘kiss’, we can only count events once, hence (8b) does not display the same ambiguity.

(8) a. Ron and Sally kissed each other three times. (non-symmetric)
    i. There was a total of three kissing events.
    ii. There were six kissing events: three initiated by Ron and three initiated by Sally.
    b. Ron and Sally kissed three times.
    i. There was a total of three kissing events. (symmetric)

Interestingly, as (9) shows, only covert reciprocals can participate in PC in English.
(9) (Ron) told Sally that he wanted to [PRO+] to meet (*each other) as soon as possible.

This suggests two things: first, that only those reciprocal verbs that have symmetric semantics are compatible with PC PRO and second, that only verbs that have acquired a reciprocal meaning through a lexical operation have symmetric semantics (as originally proposed in Siloni 2002). If these generalizations are on the right track, we then expect them to extend to French. In French, the only natural way to express (6) is to combine the reciprocal morpheme se with transitive embrasser ‘kiss’, as in (10).

(10) Ron et Sally se sont embrassés.
Ron and Sally SE are kissed
‘Ron and Sally kissed (each other).’

We first note that reciprocal se can be added to just about any transitive verb and the productivity of this process immediately suggests that it is syntactic. Second, semantically, the sentence in (10) is akin to (6b) rather than (6a); that is, it is unmarked with respect to symmetry and can therefore describe a non-symmetric situation, as the possible rejoinder in (11) makes clear.

(11) …lui, chastement, sur le front, elle, avec aplomb, sur les lèvres.
Lit. ‘…he, chastely, on the forehead, she, boldly, on the lips.’

This is further confirmed by the fact that reciprocal s’embrasser gives rise to the sort of counting ambiguities that arise with the English periphrastic reciprocal ‘kiss each other,’ as (12) shows.

(12) Ron et Sally se sont embrassés trois fois.
Ron and Sally SE are kissed three times
i. There was a total of three kissing events.
ii. There were six kissing events; i.e., Ron kissed Sally three times and she kissed him back three times.

Such facts are, in fact, part of larger paradigm uncovered by Siloni (2001) and further discussed in Reinhart and Siloni 2005 and Siloni 2008, 2012. That is, setting periphrastic reciprocals aside, reciprocals exhibit a number of properties that cluster in such a way that they can be split into two groups cross-linguistically. In languages like French, Spanish, Serbian etc., reciprocalization is a highly productive operation that can target ECM predicates like (13a) and allows direct objects, as in (13b).

(13) a. Aline et Bernard se trouvent plutôt beaux.
Aline and Bernard SE find rather beautiful
‘Aline and Bernard find each other quite good-looking.’
b. Aline et Bernard s’envoient des poèmes.
Aline and Bernard SE-send some poems
‘Aline and Bernard send poems to each other.’

On the other hand, in languages like English, Russian, Hebrew etc., reciprocalization is restricted to a small set of verbs, does not co-occur with direct objects and never targets ECM predicates. Reinhart and Siloni’s Lex(icon)-Syn(tax) parameter ascribes these patterns to the fact that reciprocalization is a valence reducing operation, the locus of which can either be the syntax (as in French, Spanish, Serbian) or the lexicon (as in English, Russian, Hebrew). Further, as argued in Dimitriadis 2004, when reciprocalization applies in the lexicon, it does not have access to sub-events resulting from the syntactically determined interaction of a verbal predicate and its arguments. This means that lexical reciprocals, being denotationally restricted to atomic events, can only convey reciprocal meaning by being symmetric. Reinhart and Siloni (2005) also point out, however, that in syntactic reciprocal languages like French, there can be instances of lexical reciprocals that constitute a small set of verbs. Two such cases, illustrated in (14) and (15), are the se-
Aristotle, for instance, discusses the relationship between the parts of a whole and the whole itself.

This idea is also evident in the concept of **reciprocal** verbs, which indicate actions performed by two or more entities. Reciprocal verbs can be **syntactic** or **lexical**.

### Syntactic Reciprocals

Syntactic reciprocals are those that can be formed in the syntax with a compositional meaning that is non-symmetric (i.e., **beat each other**, **quarrel**, **agree**). For instance:

- **se battre** (beat each other or quarrel)
- **s’entendre** (hear each other or agree/get along)

As expected, the transitive counterparts of such verbs only match the meaning of the corresponding syntactic reciprocals. This is illustrated in (14) and (15).

14. a. Claire et Annie se sont battues.
   Claire and Annie SE are beat
   ‘Claire and Annie beat each other.’ or ‘Claire and Annie quarreled.’

   b. Claire a battu Annie.
   Claire has beat Annie
   ‘Claire beat Annie.’

15. a. Claire et Annie se sont entendues.
   Claire and Annie SE are heard
   ‘Claire and Annie heard each other.’ or ‘Claire and Annie agreed.’

   b. Claire a entendu Annie.
   Claire has heard Annie
   ‘Claire heard Annie.’

Assuming that **PC** requires the embedded collective predicate to be symmetric and that only reciprocals formed in the syntax can be non-symmetric, we then expect that when the ambiguous reciprocal French verbs in (14a) and (15a) are used in PC infinitives, only the symmetric idiomatic interpretation of these verbs is available. This is the correct prediction, as (16) and (17) show.

16. Je m’entends [PRO, m’être battu toute la nuit].
   ‘I remember quarrelling/*beating each other all night.’

17. a. Je m’entends [PRO, m’être entendu là-dessus] (avant de signer le contrat).
   ‘I remember agreeing on this (prior to signing the contract).’

   b. *Je m’entends [PRO, m’être entendu à travers le mur de ma chambre].
   ‘I remember us hearing one another through my bedroom wall.’

Finally, as observed by Siloni (2008), the main factor that determines the availability of a reciprocal construction with a comitative argument is whether the reciprocal predicate is a lexical entry rather than the output of a syntactic operation. We illustrate this observation with the ambiguous **s’entendre** (‘get along’ or ‘hear one another’), which, as (18b) shows, can only have the symmetric idiomatic interpretation when used with a comitative argument.

18. a. Paul et son père s’entendaient mal.
   Paul and his father SE-heard poorly
   ‘Paul and his father got along poorly.’ (lexical reciprocal)

   b. Paul s’entendait mal avec son père.
   Paul SE-heard poorly with his father
   ‘Paul got along poorly with his father.’

Thus, only lexical reciprocals can partake in the reciprocal construction with a comitative argument and, since lexical reciprocals are the only reciprocals that can be predicated of PC PRO, we end up with Sheehan’s generalization in (2). The overall picture that emerges for French is that PC is only possible with symmetric embedded reciprocals, those being a rather small subset of reciprocal predicates that license comitative arguments and do not have a transitive counterpart (at least not one with the same denotation). This small subset includes the verbs in (19).

19. **se rassembler** ‘gather’
   **se réunir** ‘meet’
   **s’entretenir** ‘converse’
3 Consequences for the Theory of Partial Control

The majority of the present approaches to PC focus on predicting the class of matrix verbs that create the proper environment for PC PRO and have therefore little to say about the symmetry constraint discussed in this paper. The theory of PC proposed by Landau (2016a, 2016b), on the other hand, takes PRO in PC to be a group-denoting, syntactically singular but semantically plural noun and it seems therefore worthwhile to explore the question of whether this characterization of PC PRO suffices to explain the fact that it can only be the subject of symmetric reciprocal predicates. In what follows, we will show that this, unfortunately, is not the case.

An important distinction between group nouns and PC PRO is pointed out in Pearson 2013 (page 312): in many English dialects spoken in the UK, group-denoting nouns can bind plural anaphors in the so-called periphrastic reciprocal construction (cf. 20) and are, therefore, compatible with non-symmetric reciprocals. This, however, does not correlate with PC PRO being able to antecede plural anaphors in those dialects (cf. 21), as one might expect. Thus, within the same English dialect, a group noun, but not PC PRO, can be the subject of a non-symmetric reciprocal.

(20)  a. %My family always fight with each other.
     b. %By doing this, the government have opened themselves to criticism.

(21)  *The chair would prefer [PROj+ to consult each other before the vote].

Group nouns and PC PRO differ in a similar way when we examine their compatibility with those non-symmetric reciprocal predicates that are not periphrastic reciprocals. Recall that PC PRO can only be predicated of symmetric reciprocal predicates; that is, predicates that always yield an atomic event interpretation. Group nouns, on the other hand, are not subject to this constraint: they are compatible with non-symmetric reciprocal predicates on both of their interpretations, as the examples in (22) make clear. A predicate like s’envoyer des messages ‘send messages to each other’ in (22b) is a non-symmetric reciprocal predicate that takes the group noun couple as its subject and is incompatible with an atomic event interpretation (i.e., it can only be understood as the accumulation of message-sending sub-events). In (22a), on the other hand, the non-symmetric reciprocal s’embrasser ‘kiss,’ predicated of the same group noun, is compatible with both an accumulation of sub-events and an atomic event interpretation. It thus appears that group nouns are unlike PC PRO in that they are compatible with non-symmetric predicates.

(22)  a. Le couple s’est embrassé.
       the couple SE-is kissed
       ‘The couple kissed (each other).’

b. Le couple s’est envoyé des messages sur Instagram.
       the couple SE-is sent some messages on Instagram
‘The couple sent each other messages on Instagram.’

A second type of issue tied to Landau’s approach to PC has to do with the mismatch between the morphological and semantic person values on PC PRO made evident by sentences like (23).

(23) a. Le sujet sur lequel je voudrais [PROj m’entretenir] est grave à mes yeux.
    the topic on which I would-like SE.1sg-converse is serious to my eyes

b. Préférais-tu [PROj te rassembler] autre part ?
    would-like-you SE.2sg assemble elsewhere

In (23a), the [1st person sg] form of the reciprocal morpheme on the infinitive indicates that PC PRO is morphologically [1st person sg] and thus matches the morphological person value of the controller in the matrix. Semantically, however, PC PRO in (23a) is [1st person pl]. Similarly, in (23b), PC PRO is morphologically [2nd person sg] but semantically [2nd person pl]. Landau (2016b) explains such mismatches as follows. First, he assumes that PC constructions contain an abstract associative morpheme attached to the inflectional head of the infinitive. This abstract morpheme functions as a group operator on the index of the controller, which yields a set that includes the referent of this index plus at least one other referent. Because the abstract morpheme is attached to a phi-less T, it does not induce morphological plurality though it does induce semantic plurality. Finally, while PC PRO inherits its morphological phi-features from the controller, it does so at PF, which is “too late” to impact the semantic interpretation.

While Landau’s PF account does make the correct predictions, it, in turn, raises some non-trivial questions regarding the nature of PRO. For example, the French pronoun on is subject to similar mismatches but its behavior diverges from that of PC PRO, a fact that remains unexpected under any theory of PC that we are aware of. French on has three interpretations: indefinite, quasi-universal and referential. The interpretation relevant to our purposes is the referential one, illustrated in (24).

(24) On a bien mangé.
    ON have.3sg well eaten
    ‘We ate well.’

As the form of the auxiliary verb in (24) makes clear, on is morphologically [3rd person sg]; however, as reflected by the gloss, on is semantically [1st person pl]. French on can, of course, serve as a controller, in which case PRO inherits its morphological makeup, as evidenced by the [3rd person sg] form of the reciprocal morpheme appearing in the infinitival in (25).

(25) Onj se rappelle [PROj *nous/s’être tous embrassés à cette occasion].
    we remember *1PL/3sg-be all kissed at that occasion
    ‘We remember all kissing on that occasion.’

(25) also demonstrates that PRO controlled by on is compatible with the floated quantifier tous ‘all.’ What is interesting about the status of PRO in (25) is that it is very much like PC PRO in that it bears the singular morphological feature of the controller in the matrix, yet it is semantically interpreted as a group that includes the speaker, hence its compatibility with tous ‘all,’ which quantifies over the members of that group. Unexpectedly, however, PC PRO, though it too semantically denotes a group that includes the speaker in a sentence like (26), turns out to be incompatible with tous.

(26) Jej me rappelle [PROj j’être (*tous) réuni dans la salle de séminaire].
    I remember 1sg-be all met in the room of seminar
    ‘I remember (all of us) meeting in the seminar room.’

Assuming Landau’s theory of PC, the only difference between (25) and (26) is that in (25), PRO inherits its semantic plurality directly from the controller, whereas in (26), the semantic plurality
of PRO is induced by the silent associative morpheme on the infinitival T. Why this should make a difference with respect to the availability of universal quantification via *tous remains unexplained, however.

A second, possibly related puzzle has to do with the existence of contrasts such as that in (27). Sentences like (27a), although they do not involve partial control, as (27b) does, nevertheless mimic the latter in terms of the morphological and interpretive properties of the embedded subject. Interestingly, PC PRO and *on, though they are both morphologically singular and semantically plural, differ in that only PC PRO is compatible with the first-person form of the reciprocal morpheme on the embedded predicate.

(27) a. Je préférerais [qu’on *me/se réunisse demain].
   I would prefer that we 1SG/3SG meet tomorrow
b. Je préférerais [PRO *me/*se réunir demain].
   I would prefer 1SG/3SG to-meet tomorrow
   ‘I’d rather (we) meet tomorrow.’

This suggests that PRO in PC, unlike *on, is underspecified for phi-features when pulled out of the lexicon and strictly inherits its phi-features from the controller, a conclusion reached by Landau (2016b). It may, in fact, be the case that only Agree-valued uninterpretable phi-features can be stripped by Spell-Out and thus be present in PF but invisible to interpretation. This view, however, leaves us with a puzzle illustrated by the paradigm in (28).

(28) a. On s’est réunis soûls.
   We 3SG-are met-PL drunk-PL
   ‘We met drunk.’
b. Manon se rappelle [PRO s’être réunie soûle/*soûls].
   Manon remembers 3SG-be met.FEM.SG drunk.FEM.SG/*drunk.PL
   ‘Manon remembers meeting drunk.’

As (28a) shows, participle and predicative adjective number/gender agreement in French is based on semantic rather than syntactic considerations. While *on is morphologically [3SG] and agrees with both reciprocal se and the auxiliary in T, both the participle and the predicative adjective are morphologically plural, matching the semantic, rather than the morphological, value of *on. All things being equal, we then expect the participle and the predicative adjective in the PC construction in (28b) to morphologically match the semantic plural value of PC PRO. However, this expectation is not met: both the participle and the predicative adjective match the phi-feature set of the controller and that of PC PRO (i.e., [3SG.FEM]). Furthermore, these phi specifications are not invisible to the semantic component: (28b) can only mean that Manon remembers meeting with an unspecified set of people while she alone was drunk. Thus, it appears that participles and predicative adjectives, which in other contexts reflect the semantic rather than the syntactic phi-specifications of the subject phrase, seem blind to the plural semantic value of PRO in PC contexts and this brings us back to Landau’s idea that PC PRO is akin to a group-noun. This will yield the right results for (28b) provided that we take group-noun-PRO to denote a singular atomic entity whose “plurality” is not semantic (contra Landau) but is inferred via our reasoning about parts and wholes based on our knowledge of the world. Strangely enough, however, we cannot think of an overt pronoun that inherently possesses those properties, which makes PC PRO a very special pronoun indeed.

References


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