

Italian past participle agreement: agreement via edge features

Overview In Standard Italian, past participles can bear overt morphological inflection for gender and number (*past participle agreement*, hence *ppa*). I propose that Italian *ppa* is the morpho-phonological reflex of successive cyclic movement of an XP to the edge of the phase head v . Interestingly, this extraction marker is also present when the XP that controls *ppa* seems not to have moved. I argue that these cases constitute instances of covert A-movement. I also show that *ppa* has very different sources in different languages and is not a homogeneous phenomenon.

Data In Standard Italian, past participles in perfect constructions may show overt morphological inflection for gender and number. Possible controllers of *ppa* are unaccusative subjects (1a), passive subjects, object clitic pronouns, reflexive clitic pronouns (1b) (data are mine).

- (1) a. Le ragazze sono arrivat-**e**.
the girls be.PRS.3PL arrive.PRTC-PL.F
'The girls have arrived.'
- b. Teresa si=è lavat-**a** le camicie.
Teresa REFL.DAT.3SG.F=be.PRS.3SG wash.PRTC-SG.F the shirt.PL.F
'Teresa has washed her shirts (for herself).'

In all the cases mentioned, the controller of agreement moves out of its base position. For instance, the unaccusative argument is merged as an internal argument and then moves to Spec,T where it is assigned nominative case (Burzio 1976, Perlmutter 1978), while clitic pronouns must incorporate to the finite verb in T. It has already been argued that *ppa* is dependent on movement (Kayne 1985, 1989, Bouchard 1987, Branigan 1992, Belletti 2006, among others), but the explanation consists of the obsolete mechanism of Spec-head-agreement. Other proposals adopt downward Agree, but they either present other technical problems (D'Alessandro & Roberts 2008, Longenbauch 2019), or cannot be straightforwardly applied to the Italian data (Georgi & Stark 2020).

Proposal I consider past participle agreement to be a consequence of A-movement of an XP across the head that is spelled out as a participle, v . Crucially, I assume that every v is a phase (Legate 2003, Müller 2010, Abels 2012). Under the phase theory, if an XP that is contained in the complement of a phase head bears an unchecked feature (such as [case:_] for the unaccusative arguments), it must escape the phase domain in order to remain accessible for higher heads. I assume that this movement is triggered by an *edge feature* (EF), which must be inserted on the phase head v (Chomsky 2001, 2008, Müller 2010, Abels 2012). I propose that the edge feature not only consists of a Merge component, but also of an Agree feature for gender and number [$u\phi$:_], as shown in (2).

- (2) Edge Feature (inserted on v): [$\bullet uF\bullet$] + [$u\phi$:_]

The Merge feature [$\bullet uF\bullet$] moves to Spec, v the XP that bears the unchecked feature [uF]. The ϕ -probe copies the ϕ -features of this XP, and these are spelled out by *ppa*. This approach offers an alternative explanation of the fact that agreement shows up if an XP moves to a specifier position, which was ascribed to specifier-head agreement in earlier versions of the theory, and which is no longer possible in a c-command-based theory of Agree (Chomsky 2000, 2001).

Covert movement There are also cases where the XP that controls agreement apparently remains in its base position. For example, the unaccusative DP can be pronounced in the internal argument position, and nonetheless it triggers *ppa* (3a) (to be compared with (1a)). The participle also agrees with the object in situ in impersonal transitive clauses (3b).

- (3) a. Sono arrivat-**e** le ragazze.
 be.PRS.3PL arrive.PRTC-PL.F the girls
 ‘There have the girls arrived.’
- b. Si=sono cucinat-**e** le lasagne.
 IMPERS=be.PRS.3PL cook.PRTC-PL.F the lasagne.PL.F
 ‘One has cooked lasagne.’

An analysis in terms of simple probing under c-command cannot derive the distribution of ppa, since it leads to the wrong prediction of ppa with the transitive object in situ, which is not grammatical outside impersonal clauses (*hanno cucinato/(*-e) le lasagne* ‘they have cooked lasagne’).

I argue that the cases (3) involve covert A-movement. Examples of covert A-movement are quite rare, but this has been proposed by Polinsky & Potsdam (2013) for raising in Adyghe, by Bobaljik (2002) for raising in Icelandic. Moreover, Cardinaletti (1997) has argued that, in sentences as (3a), case assignment and finite agreement with the postverbal DP is possible if the DP covertly moves to a preverbal position. I extend Cardinaletti’s (1997) proposal to ppa: the postverbal DP triggers ppa because it covertly moves to Spec,*v* (where it becomes accessible to T). A similar account of participle agreement in terms of overt or covert movement (although \bar{A} -movement) has also been proposed for Passamaquoddy by Bruening (2001).

Evidence for covert movement comes from the following tests: (i) control of PRO inside an adjunct clause, (ii) binding of an anaphoric pronoun, (iii) quantifier scope interaction. Examples (4a,b) illustrate that control is possible with the DP in situ (the DP can also control PRO from the preverbal position). Instead, the object of a transitive verb cannot control PRO (4c).

- (4) a. È uscit-**a** Teresa_i [PRO_i prima di finire la cena].
 go.out.PRS.3SG go.PRTC-SG.F Teresa before of finish.INF the dinner
 ‘Teresa has gone out before having finished dinner.’
- b. Si=sono chiamati i genitori_i [PRO_i prima di uscire].
 IMPERS=be.PRS.3PL call.PRTC-PL.M the parents before of going.out.INF
 ‘One has called the parents before they went out.’
- c. I bambini_j hanno chiamato i genitori_i [PRO_{j/*i} prima di uscire].
 the children have.PRS.3PL call.PRTC the parents before of go.out.INF
 ‘The children have called the parents before going out.’

Different languages, different strategies Cross-linguistically, ppa has very different sources (data come from Manzini & Savoia 2005): (i) an edge feature (Italian, Ortezzano, Servigliano, Pescocostanzo), (ii) a ϕ -probe on *v* (Old Italian, Tufillo, Trebisacce, Neapolitan), (iii) a relativized probe on a higher head (Ariellese), (iv) a clitic pronoun (Catanzarese). Other languages do not have ppa at all (Secinaro, Colledimacine, Aquafondata). Hence, different strategies must be assumed for different languages (see also Georgi & Stark 2020 for different sources for ppa in French).

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