Remarks
and
Replies

Movement and Agreement in Italian Past Participles and Defective Phases

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In this article, we propose a phase-based alternative to Kayne's (1989) analysis of past participle agreement in Italian. This analysis captures the principal facts without making reference to specifier-head agreement. Instead, the possibility of overt past participle agreement is determined by the Phase Impenetrability Condition and is linked to the surface position of the past participle. The analysis has interesting crosslinguistic implications, notably in that it predicts a general asymmetry between subject and object agreement.

Keywords: past participle agreement, Italian, phases, Phase Impenetrability Condition, specifier-head agreement

1 Past Participle Agreement in Standard Italian

In Standard Italian, past participle agreement is associated with internal arguments that are promoted to subject position (in unaccusative, passive, and mediopassive sentences), with reflexive constructions (which, according to Kayne (1988), also involve promotion of the ''antecedent'' of the reflexive), and with preposed direct object clitics, as shown in (1a–e), respectively.[1]

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[1] A reviewer points out that raising verbs appear to vary lexically in their choice of auxiliary, and therefore in participle agreement, since the participle of these verbs always cooccurs with the 'be'-auxiliary (in Standard Italian). The following contrast, from Burzio 1986:139, illustrates:

(i) Maria ha potuto   risolvere il problema.
    Maria has could.MASC.SG solve   the problem
    'Maria was able to solve the problem.'

(ii) Maria è sembrata   risolvere il problema.
     Maria is seemed.FEM.SG solve   the problem
     'Maria seemed to solve the problem.'

Verbs like *sembrare* 'seem' share many properties with unaccusatives (lack of external argument, lack of internal case, inability to passivize, etc.). Therefore, (ii) falls under the analysis to be presented in the text, in that it can be treated as being associated with a defective vP phase (see also Chomsky 2001:8–9). The case of *potere* ('can/be able to') in (i) is

(1) a. Le   ragazze   sono   arrivate.
       the.FEM.PL girls.FEM.PL are.PL arrived.FEM.PL
       'The girls have arrived.'

   b. Le   ragazze   sono   state   arrestate.
       the.FEM.PL girls.FEM.PL are.PL been.FEM.PL arrested.FEM.PL
       'The girls have been arrested.'

   c. Si sono viste   le   ragazze.
       SI are.PL seen.FEM.PL the.FEM.PL girls.FEM.PL
       'We have seen the girls./The girls have been seen.'

   d. Le   ragazze   si   sono   guardate   allo   specchio.
       the.FEM.PL girls.FEM.PL selves are.PL looked.FEM.PL at.the mirror
       'The girls have looked at themselves in the mirror.'

   e. Le   abbiamo   salutate.
       them.FEM.PL we.have greeted.FEM.PL
       'We have greeted them.'

On the basis of facts like these, Kayne (1989) and Belletti (2001) have argued that past participle agreement is triggered by the fronting of an internal argument. Kayne (1989) originally proposed that the agreement is triggered by moving the internal argument through the specifier (Spec) of Agr$_O$P.

(2) DP . . . [$_{Agr_OP}$ (DP) Agr$_O$ [$_{VP}$ V (DP)]] . . .

On this view, raising of an originally VP-internal DP, passing through Spec,Agr$_O$P, triggers Spec-head agreement with Agr$_O$ and consequent checking of number and gender features of the DP. In this way, Kayne's proposal accounts for three phenomena: (a) only internal arguments trigger past participle agreement; (b) agreement always and only takes place in a Spec-head relation; (c) agreement is connected to movement. In connection with (b), Belletti (2001:17) points out that ''a crucial piece of data concerning the phenomenon of past participle agreement in Romance is that no variety allows for the past participle to agree with the subject of intransitive/unergative
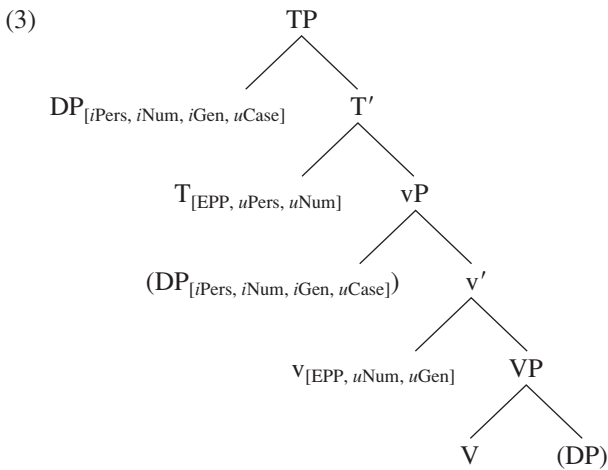
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trickier; it is possible that this example at least is a case of control (see also Ross 1969). However, there are cases where *potere* is unambiguously a raising verb and where the 'have'-auxiliary appears; hence, participle agreement is not allowed.

   (iii) Avrebbe   potuto   sembrare essere arrivata   Maria.
         would.have could.MASC.SG seem   be   arrived.FEM.SG Maria

   (iv) ?Sarebbe   potuta   sembrare essere arrivata   Maria.
         would.be could.FEM.SG seem   be   arrived.FEM.SG Maria
         'Maria could have seemed to have arrived.'

Cases where *potere* shows participle agreement, like (iv), are ''restructuring'' contexts (in the sense of Rizzi 1982). Otherwise, *potere* does not show participle agreement despite acting as a raising verb. In terms of the analysis to be presented in the text, we have to conclude that the nonrestructuring variant of *potere* does not head a defective phase.

and transitive verbs. . . . Any treatment of the computation involved in past participle agreement must account for this fact.''[2]

   In terms of Chomsky's (2001) Agree-based system, we could rephrase most of Kayne's analysis along the following lines. Bearing unvalued number and gender features, v probes these features of the VP-internal DP. DP has an unvalued case feature and so is able to be an active goal. DP moves to Spec,vP since v also bears an EPP feature. However, because DP also has a person feature and T has unvalued person and number features, T probes for DP. Since T also has an EPP feature, DP raises to Spec,TP. DP's case feature is checked by T since all of DP's features are checked by T at this point. The derived structure, along with the feature-valuing relations, is thus as shown in (3).

(3)

$$
\begin{array}{c}
\text{TP} \\
\diagup \quad \diagdown \\
\text{DP}_{[i\text{Pers}, i\text{Num}, i\text{Gen}, u\text{Case}]} \qquad \text{T}' \\
\diagup \quad \diagdown \\
\text{T}_{[\text{EPP}, u\text{Pers}, u\text{Num}]} \qquad \text{vP} \\
\diagup \quad \diagdown \\
(\text{DP}_{[i\text{Pers}, i\text{Num}, i\text{Gen}, u\text{Case}]}) \qquad \text{v}' \\
\diagup \quad \diagdown \\
\text{V}_{[\text{EPP}, u\text{Num}, u\text{Gen}]} \qquad \text{VP} \\
\diagup \quad \diagdown \\
\text{V} \qquad (\text{DP})
\end{array}
$$

   Although it appears to replicate several aspects of Kayne's analysis, this approach has two serious problems. First, it predicts that the past participle of a transitive verb will show morphological agreement with the unmoved direct object, since it stands in an Agree relation with that object and licenses its case feature. For Standard Italian, this is incorrect.[3]

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[2] Since the participle agrees with the subject of active transitives in many central and southern Italian dialects, Belletti's observation is not fully accurate (Manzini and Savoia 2005:vol. 2, chap. 5). Strikingly, in those dialects the past participle does not raise (see D'Alessandro and Roberts 2006 for further details). The relevance of this point will emerge below.

[3] As an anonymous reviewer reminds us, examples like (4) are found in highly literary and archaic Italian, but they are not really part of the contemporary standard language. The following example, from the nineteenth-century author Alessandro Manzoni, illustrates:

(i) la   quale, dopo aver   asciuga*te*   in segreto le   lacrime, . . .
    the which after to.have wiped.FEM.PL in secret   the.FEM.PL tears.FEM.PL
    'who, after secretly wiping her tears, . . .'
    (Manzoni, *I promessi sposi*, ed. by Angelo Marchese, chap. 9. Mondadori (1985).)

Past participle agreement of this type is general in central and southern dialects (see references in footnote 2), and, although rarer in northern Italian dialects, it is attested in the varieties of Quarna Sopra and Bagolino (Manzini and Savoia 2005:vol. 2, 560).

(4) *Ho   mangiata   la   mela.
    I.have eaten.FEM.SG the.FEM.SG apple.FEM.SG
    'I have eaten the apple.'

Second, given that the direct object can be left in situ, yet agreement still appears, as shown in (5), we have to assume either that v's EPP feature is optional or that it can be satisfied by an expletive *pro*, since Italian is a null subject language (or by some equivalent mechanism peculiar to null subject languages, as in Alexiadou and Anagnostopoulou 1998).

(5) Sono arrivate   le   ragazze.
    are.PL arrived.FEM.PL the.FEM.PL girls.FEM.PL
    'The girls have arrived.'

However, just where T's EPP feature is either absent or satisfied by *pro* or its equivalent, the EPP feature of v must also be either absent or satisfied by *pro*. Otherwise, ungrammatical sentences like (6) can result.

(6) *Sono le   ragazze   arrivate.
    are.PL the.FEM.PL girls.FEM.PL arrived.FEM.PL
    'The girls have arrived.'

One possible solution to this problem would be to merge expletive *pro* in Spec,vP and raise it to Spec,TP, thereby satisfying both EPP features (see Richards and Biberauer 2005 on overt expletives in Germanic). This strikes us as unsatisfactory, however, to the extent that the postulation of expletive *pro* is dubious, since this element has no interface properties (it is silent and therefore has no PF property, and it is an expletive and so has no LF property).[4]

Because of these problems, we propose a different, phase-based account of the relation between Italian past participle agreement and the argument structure of the verb. Our analysis avoids the problems just mentioned, retains some of the central insights of Kayne's analysis (e.g., the connection between overt past participle agreement and the argument structure of the clause),

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(ii) A i   o   la'vaa   a   'makina.   (Quarna Sopra)
    CL CL I.have washed.FEM.SG the.FEM.SG car.FEM.SG
    'I have washed the car.'

Here, too, the equivalent of *bene* ('well') precedes the participle, suggesting that the participle is in a lower position than in Standard Italian (Manzini and Savoia 2005:vol. 3, 165).

(iii) T e   bɐ   dru'mi.   (Quarna Sopra)
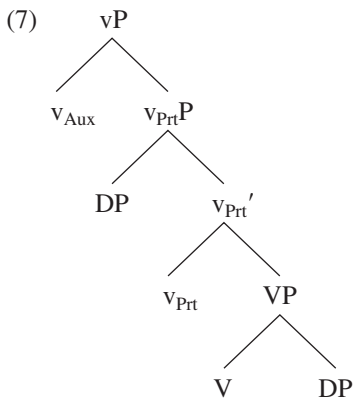   CL you.have well slept
    'You have slept well.'

The second element of negation, *miɐ*, equivalent to French *pas*, follows the participle, however (see Manzini and Savoia 2005:vol. 3, 155ff., for discussion and illustration). Thanks again to the reviewer for drawing our attention to these varieties.

    [4] A reviewer points out that such objections could be raised against argumental *pro* if verbal inflection is taken to be interpretable in null subject languages. This is correct; if it can be shown that verbal inflection is interpretable, then there is no motivation for argumental *pro*, as argued by Barbosa (1995) and Manzini and Savoia (2005:vol. 1, chap. 2). We suspect, however, that argumental *pro* does exist; see Holmberg 2005 and Roberts, to appear.

and is also consistent with observations originally made by Cinque (1999) regarding the different positions of transitive as opposed to passive and unaccusative participles in Italian. The analysis makes crucial use of Chomsky's (2001, 2005) proposals regarding the Phase Impenetrability Condition (PIC) and the distinction between defective and nondefective vPs. In this sense, our account is more natural than one based on Spec-head agreement in that the occurrence of past participle agreement is determined by a central property of the current system: the cyclic nature of derivations.

2 Transitive vP

We assume the structure in (7), involving an iterated vP, for periphrastic tenses in Romance generally.

(7)

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                    vP
                   /  \
               v_Aux   v_Prt P
                      /    \
                   DP      v_Prt'
                          /    \
                      v_Prt     VP
                               /  \
                              V    DP
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We take it that the external argument is merged in Spec,v_{Prt}P. This amounts to treating the auxiliary, whose merged position we have given as v_{Aux} in (7), as a raising predicate that selects v_{Prt}P (see Ross 1969). The head v_{Prt} assigns the external θ-role to the external argument and enters an Agree relation with the direct object in φ-features, thereby valuing the direct object's case feature. As a result, v_{Prt} heads a nondefective phase in Chomsky's (2001) sense, an instance of v*. The question that arises now is the one we raised in the previous section for (our adaptation of) Kayne's analysis: why does the past participle not generally show agreement with the postverbal object? In other words, why are examples like (4) ungrammatical?

We propose that the answer to this question can be found in a phase-based approach to derivations, along with assumptions regarding the mapping to PF. Cinque (1999:102–103, 146ff.; see also Belletti 2001:30) observes that active transitive past participles must raise over a certain class of manner adverbs in Italian.[5]

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[5] Not all native speakers agree that (8b) is ungrammatical, although this is D'Alessandro's judgment, as well as Cinque's. It is important to note that the form of the adverb must be *bene*, and not the reduced form *ben*, which might be able to function as a prefix on adjective participles.

(8) a. Hanno   accolto   bene il   suo spettacolo solo loro.
     have.PL received well the his show   only they

   b. *Hanno   bene accolto il   suo spettacolo solo loro.
     have.PL well received the his show   only they
     'They alone have received his show well.'

On the other hand, passive participles may remain in a lower position.[6]

(9) a. Questo genere di spettacoli è sempre stato bene accolto.
     this   kind   of shows   is always been well received

   b. Questo genere di shows   è sempre stato accolto   bene.
     this   kind   of shows   is always been received well
     'This kind of show has always been well received.'

We interpret the obligatory raising of the participle in (8a) as movement to the v_{Prt} in (7), assuming for simplicity that adverbs like *bene* are adjoined to VP.

(10)
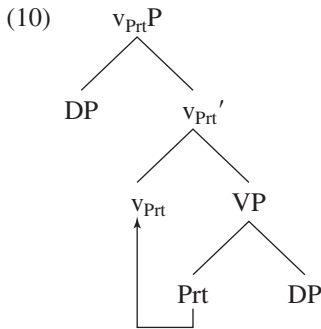
At the point of Spell-Out, then, the participle occupies v_{Prt}. Since v_{Prt} heads a nondefective phase, its complement VP is sent to PF on a distinct cycle. Let us now suppose the following condition on the morphophonological realization of agreement:

(11) Given an Agree relation A between probe P and goal G, morphophonological agreement between P and G is realized iff P and G are contained in the complement of the minimal phase head H.

(12) XP is the complement of a minimal phase head H iff there is no distinct phase head H′ contained in XP whose complement YP contains P and G.

(11) and (12) effectively state that morphophonological agreement, like many other phonological processes (see, e.g., Richards 2004, Biberauer and D'Alessandro 2006, Bobaljik 2006), takes place within the complement to a phase head—that is, the substructure that is transferred to PF as a single unit.

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[6] As Cinque points out, the raising of the passive participle seen in (9b) is characterized by specific time reference. As we will show, this optional movement does not create any special problems for our analysis, and, as Cinque suggests, it may well be caused by some factor orthogonal to the licensing of the arguments and participles involved here.

(11) is not a separate stipulation, but instead follows from the PIC.[7] The version of this condition given in Chomsky 2001:13 is as follows:

(13) [For a strong phase HP with head H,] the domain of H is not accessible to operations outside HP; only H and its edge are accessible to such operations.

In these terms, (11) can be understood as stating that overt morphophonological agreement in Standard Italian arises only within the complement of H and thus is constrained by this version of the PIC. This is of course an entirely natural conclusion, given the idea that the PIC defines domains for cyclic Spell-Out and that overt agreement is determined by this.

In (10), since the participle has raised to v_{Prt} and since v_{Prt} is a phase head, at PF the participle is no longer contained in the sister of v_{Prt}, VP. On the other hand, the direct object *is* of course contained in VP. This is why the participle fails to show agreement in φ-features with the direct object. At PF, when the participle is spelled out, it defaults to masculine singular agreement. The result is that (14) is grammatical, while (4), repeated here as (15), is not.

(14) Ho mangiat*o* la mela.
     I.have eaten.MASC.SG the.FEM.SG apple.FEM.SG
     'I have eaten the apple.'

(15) *Ho mangiat*a* la mela.

3 Nontransitive vP

Let us now consider the cases in (1), repeated here as (16).

(16) a. Le ragazze sono arrivate.
        the.FEM.PL girls.FEM.PL are.PL arrived.FEM.PL
        'The girls have arrived.'
   b. Le ragazze sono state arrestate.
        the.FEM.PL girls.FEM.PL are.PL been.FEM.PL arrested.FEM.PL
        'The girls have been arrested.'
   c. Si sono viste le ragazze.
        SI are.PL seen.FEM.PL the.FEM.PL girls.FEM.PL
        'We have seen the girls./The girls have been seen.'
   d. Le ragazze si sono guardate allo specchio.
        the.FEM.PL girls.FEM.PL selves are.PL looked.FEM.PL at.the mirror
        'The girls have seen themselves in the mirror.'
   e. Le abbiamo salutate.
        them.FEM.PL we.have greeted.FEM.PL
        'We have greeted them.'

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[7] In fact, as an anonymous reviewer points out, (11) is stronger than the PIC, since it forbids even agreement between the Spell-Out domain and the edge of a phase.

Consider first the unaccusative in (16a). Here we assume that there is a vP—in fact, an iteration of vPs, the higher containing the auxiliary and the lower the participial head as in (7). Unlike in (7), however, v_{Prt} is not the head of a nondefective phase: there is no external argument and v_{Prt} is unable to case-license the object DP (see Burzio's Generalization (Burzio 1986:178ff.), and Kratzer 1989). Therefore, given (11), even if the participle raises to v_{Prt}, giving a derived structure like (10), the participle and the object are contained in the complement of the same minimal phase head (in this case the TP dominating the higher vP, the complement of C). Because of this, overt morphophonological agreement between the participle and the direct object is required, as a reflex of the Agree relation. (As described above, the object must also stand in an Agree relation with T in order to be case-licensed since unaccusative v_{Prt} cannot case-license the underlying object.)

Consider next the passive example in (16b). Here again, v_{Prt} is the head of a defective phase, and so, by exactly the same reasoning as for the unaccusative example we just looked at, (11) predicts that the participle and the direct object will show overt agreement. (Note that this is true whether or not the participle raises over VP-adjoined adverbs such as *bene*; see the examples in (9) and footnote 5.) We assume that essentially the same holds for structures containing mediopassive *si* as in (16c) (for a recent analysis of *si*-constructions, see D'Alessandro 2007). Concerning (16d), as mentioned earlier, we can follow Kayne (1988) in taking sentences with reflexive *si* also to involve a mediopassive-like structure. In both of these cases, the central point for our analysis must be that, presumably owing to the presence of *si*, v_{Prt} cannot be a nondefective phase head (for similar ideas, see Belletti 1982, Burzio 1986, Cinque 1988, Reinhart and Siloni 1999).[8]

Finally, let us look at (16e), where past participle agreement is triggered by clitic movement. Here, v_{Prt} is clearly active and transitive, so there is no motivation for not treating it as a nondefective phase head. We have given an account for why active transitive participles fail to agree with direct objects in general, in cases such as (16a). Here, however, agreement is required owing to the movement of the clitic object, as has often been observed (Kayne 1989, Belletti 2001). In

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[8] A reviewer points out that indirect object *si* is compatible with participle agreement in constructions like (i).

(i) Si sono lavati   le   mani.
    SI are.PL washed.MASC.PL the.FEM.PL hands.FEM.PL
    'They have washed their hands.'

Note that here the participle agrees with the reflexive clitic *si* (masculine plural), not with the feminine plural direct object *le mani*. (Many speakers do accept past participle agreement with *le mani* here, although this is considered nonstandard; it is unclear to us whether this is the same phenomenon as the one observed in footnote 3.)

On the other hand, participial passives where the indirect object is promoted to subject are quite impossible, with or without participle agreement.

(ii) *Furono dati/o   il   libro.
     were.PL given.MASC.PL/SG the.MASC.SG book.MASC.SG

This contrast suggests that not all cases of reflexive *si* should be assimilated to the mediopassive one. In (i), we could instead treat *si* as a regular masculine plural clitic, triggering agreement just like any other clitic (as described directly in the text for (16e)). This construction involves a kind of ''possessor ascension,'' treating the (inalienable) possessor of *le mani* as a derived direct object. It is probable that *si* originates in a constituent with *le mani* in which the possession relation is expressed, along the lines explored in Kayne 1994:101ff. Examples like (ii) are ruled out by whatever mechanism disallows ''indirect passives'' of this sort in Romance languages in general (see Kayne 1984).

our terms, the relation between clitic movement and agreement is very direct: the clitic moves to the higher v (for reasons that are explored in Roberts 2008, Mavrogiorgos, to appear). As a result, it is in the complement of the same phase head as the raised participle at Spell-Out, namely, C. Hence, by (11), overt morphophonological agreement is expected.

We are thus able to account for the basic cases of participle agreement in Standard Italian, in terms of a fairly simple structure for periphrastic tenses of the type in (7), standard assumptions regarding the status of passives and unaccusatives, independently motivated differences in partici-ple placement in passive as opposed to active clauses, and the condition on overt agreement in (11). This analysis captures the basic facts of past participle agreement in Standard Italian without making reference to Spec-head agreement or Agr projections, and in these respects it is more readily compatible with the proposals in Chomsky 2001, 2005 than the analyses proposed in Kayne 1989 and Belletti 2001.

Our approach based on (11) might appear to be too strong in that it would seem to forbid agreement between an extracted subject and the verb in the clause from which extraction takes place, as in *Which people do you think usually read(*s) that paper?*[9] However, in terms of the system in Chomsky 2005, in cases of subject extraction there are two distinct chains: an A-chain consisting of the subject in Spec,TP and its copy in Spec,vP, and an Ā-chain consisting of the *wh*-phrase in the matrix Spec,CP and the copy in the embedded Spec,vP. These two chains are quite distinct, and only the A-chain involves an Agree relation. Therefore, only the A-chain is subject to (11). The head of the A-chain is in the same minimal phase as the probe for subject agreement, T, and therefore agreement is realized. No position of the A-chain is overtly realized, presumably for reasons connected to ''minimal computation,'' as Chomsky (2005:16) points out.

4 Absolutive Small Clauses

Belletti (1990, 2001, 2005) observes that transitive participles agree in absolutive small clauses such as those in (17).

(17) a. Arrivata   Maria, siamo andati al   cinema.
        arrived.FEM.SG Maria we.are gone to.the cinema
        'Maria having arrived, we went to the cinema.'
    b. Conosciutala,   Marco non ebbe più   paura.
        known.FEM.SG-her.FEM.SG Marco not had more fear
        'Having met her, Marco was not afraid anymore.'
    c. Mangiata   la   mela,   Gianni si mise al   lavoro.
        eaten.FEM.SG the.FEM.SG apple.FEM.SG Gianni SI put   to.the work
        'Having eaten the apple, Gianni began to work.'

(17a) clearly poses no particular problem for our approach because, whatever the nature of the absolutive clause, the participial vP is not a nondefective phase since it is unaccusative. Hence,

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[9] Thanks to an anonymous reviewer for pointing this out.

there is essentially no difference between this case and standard unaccusative examples such as (1a)/(16a).

(17b) is similar to (16e), in that it involves participle agreement with a clitic object. Here, however, the clitic is enclitic to the participle. Following Kayne (1989, 1994), we assume that the participle has moved to a position higher than that occupied by the clitic. Assuming the clitic to be in the higher v, as in (16e), the participle is clearly in a higher position still. Presumably this position is either C or T. For our purposes, either possibility will give the correct result since T is not a phase head and since nonfinite C may be defective, which we assume it is here.

(17c) appears more problematic, however. This example has a transitive vP, and clearly the participle and the object agree. There is evidence for an external argument here, in that reflexive/reciprocal *si* is possible, as in (18).

(18) a. Una volta vestitasi,   Maria fu   pronta per la serata.
          a   time dressed.FEM.SG-self Maria was ready for the evening
          'Once dressed, Maria was ready for the evening.'
      b. Dopo essersi baciati, Gianni e   Maria si   innamorarono.
          after be-RECIP kissed Gianni and Maria RECIP fell.in.love
          'After kissing each other, Gianni and Maria fell in love.'

So it appears that (17c) involves an external argument and accusative case within the absolute participial phrase. Moreover, participle movement over adverbs like *bene* is possible.

(19) Imparata   bene la   scala   pentatonica, . . .
      learned.FEM.SG well the.FEM.SG scale.FEM.SG pentatonic.FEM.SG
      'Having learned the pentatonic scale well, . . . '
      (http://www.jazzitalia.net/lezioni/geoffwarren/gw_lezione1.asp)

It seems, then, that the absolute participial phrase has all the properties of a regular transitive vP. In that case, we do not expect to find past participle agreement—and yet we do. In our terms, then, the $v_{Prt}P$ here must not be a nondefective phase, even though it closely resembles a regular transitive vP.

Belletti (1990:chap. 2) provides abundant evidence that the sequence of participle and object in examples of this type is a small clause. Chomsky (2006:15, n. 31) observes that the nature of small clauses is unclear in the current framework, but we can at least observe that such clauses must contain a highly defective C-T system. However, some aspect of the C-T system must be present in order to attract the verb to a position higher than v, as suggested above in connection with (17b). At the very least, then, we know that the absolute participial phrase contains a C or T head that attracts the participle and selects $v_{Prt}P$.

In fact, the participial has several rather unusual properties that distinguish it from transitive vPs (or $v_{Prt}Ps$). First, unergative intransitives are impossible, as in (20).

(20) *Telefonato   a Gianni, Maria andò all'   appuntamento.
        telephoned.MASC.SG to Gianni Maria went to.the meeting

Second, there is no way to license an overt preverbal subject.

(21) *Gianni mangiata la mela, si mise al lavoro.
Gianni eaten.FEM.SG the.FEM.SG apple.FEM.SG SI put to.the work

It is possible that there is a null subject (*pro* or PRO) in this construction (Belletti (1990) argues for PRO in certain cases), but there is clearly no possibility of an overt subject argument. Third, although a passive *by*-phrase is possible, it cannot cooccur with an overt internal argument here (Belletti 1990:105).

(22) a. Vista da Gianni, la situazione era tutt'altro che
seen.FEM.SG by Gianni the.FEM.SG situation.FEM.SG was all-other than
favorevole.
favorable
'As seen by Gianni, the situation was anything but favorable.'
b. *Vista la situazione da Gianni, era tutt'altro che
seen.FEM.SG the.FEM.SG situation.FEM.SG by Gianni was all-other than
favorevole.
favorable

These facts can be straightforwardly accounted for by supposing that v_{Prt} is able to probe an argument while T is not in these sentences. Thus, arguments in the c-command domain of v_{Prt} are realized normally: objects of transitives (including clitics) and the sole argument of unaccusatives. The v_{Prt} can also be passivized, as (22) shows; whatever precisely is involved here, we can see that an overt external argument can be licensed when it is a *by*-phrase—that is, when it is in the c-command domain of v_{Prt}. Thus, it appears that v_{Prt} is not defective, while the C-T system is highly defective in not allowing (overt) active transitive or unergative subjects. In fact, the C-T system has just two properties that we can discern: it selects v_{Prt} and it attracts the participial verb.[10]

We suggest that the latter property is the crucial one in the present context. Gallego (2006: 26) proposes that when v raises to T, the movement causes the phase boundary to be ''pushed up'' to T. This is so because v-to-T movement, in which v combines with T, is a case of syntactic head movement that gives rise to so-called reprojection, ''creating a hybrid label from which all operations are triggered'' (Gallego 2006:15–16). Most importantly for our purposes, this means that ''all the phase phenomena that must occur within the v*P domain are postponed to the v*/ TP domain'' (Gallego 2006:16). Given the characterization of the domain of morphophonological agreement in (11), this means that v_{Prt}P is the complement of the derived minimal phase head T. Because of this, a copy of v_{Prt} is sent to Spell-Out along with VP. At PF, the copy of v_{Prt} is in

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[10] A reviewer points out that morphological nominative case appears on pronouns, along with participle agreement, as in (i) (uttered by a female speaker).

(i) Arrivata io, tutto andava meglio.
arrived.FEM.SG I.NOM everything went better
'Once I arrived, everything went better.'

We have no alternative other than to follow Belletti (1990) in postulating that the nominative form *io* represents a default case here, although we concur with the reviewer's comment that ''in the absence of a serious morphosyntax of Case in Italian this amounts to saying that we just don't know what it is.''

the same Spell-Out domain as the object, and hence, by (11), agreement is realized on the participle. This is the case even though the participle is spelled out in its postmovement position in T, but the nature of the features it realizes must be determined in part by the nature of the position of the copy inside $v_{Prt}P$. We assume that this applies only in the cases in which the past participle moves as far as T—that is, in absolute small clauses, and not for example in finite clauses (pace Gallego 2006).

5 Crosslinguistic Implications

The wider consequence of our analysis is that overt agreement relations ought to generally be constrained by a condition like (11). In general, we expect overt agreement to be realized just where the probe and the goal are in the same Spell-Out domain. Interestingly, standard assumptions predict a subject-object asymmetry in this respect. To see this, consider the domains for subject and object agreement on standard current assumptions.

(23) a. [$_{CP}$ C [$_{TP}$ Subj T [$_{vP}$ Subj v VP]]]   subject agreement
      b. [$_{vP}$ v [$_{VP}$ V Obj]]   object agreement

As (23a) shows, whether the subject raises to Spec,TP or not, it is in the same Spell-Out domain as T, namely, TP (we are assuming that the notion of probe relevant to (11) may be the ''derived probe'' in the sense of Chomsky 2005—that is, the head that inherits the unvalued features from the phase head, in this case T).[11] On the other hand, as we have already pointed out, an object that remains in its first-merged position is not in the same Spell-Out domain as its probe, v. All other things being equal, then, a subject-object asymmetry is observed. This seems to us to be a very good result, since it is known that subject agreement is much more frequent crosslinguistically than object agreement. According to the *World Atlas of Language Structures* (*WALS*; Haspelmath et al. 2005, maps 100 and 102), object agreement without subject agreement is found in only one nonergative language (Khoekhoe, a Khoisan language spoken in Namibia). Second, to the extent that null arguments are licensed by overt ''rich'' agreement, we predict that null subjects are more frequent crosslinguistically than null objects. This is a correct prediction, as far as we are aware.[12]

        Of course, the object may move to the edge of vP. Following Kayne (1994), it may be that this happens systematically in OV languages. In this case, the object and v are in the same Spell-Out domain and therefore agreement should be overt (see the above account of participle agreement with object clitics in Italian). We therefore expect overt object agreement to be more frequent in OV languages than in VO languages, all other things being equal. The single nonergative

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[11] Thanks to Marc Richards for drawing our attention to this.

[12] Subject agreement with complementizers of the kind found in several Germanic varieties (e.g., Bavarian (Bayer 1984), West Flemish (Bennis and Haegeman 1984)) is a problem for our generalization, since a TP-internal subject is in a different Spell-Out domain from the C position. However, it is possible that the agreement on C is a copy of the features transferred to T and therefore does not correspond to an Agree relation between C and the subject (see Biberauer 2005 for an elaboration of this idea). Thanks to Andrew Nevins for pointing this out to us.

language in *WALS* with object agreement only, Khoekhoe, is indeed an OV language. However, according to *WALS* (maps 83 and 102), 81 VO languages have both subject and object agreement, while 78 OV ones do; hence, there is apparently no correlation here.[13]

6 Conclusion

Kayne's (1989) original analysis had the merit of assimilating the configuration of past participle agreement to that of subject-verb agreement. Following on from his proposals, the idea that Spec-head relations were central for determining agreement became pervasive, and it was incorporated into early versions of minimalist checking theory (see in particular Chomsky 1993). However, more recent versions of minimalism have effectively abandoned Spec-head agreement: ''there can be no general Spec-head relation at all'' (Chomsky 2004:109). In that case, the phenomena previously accounted for in terms of Spec-head agreement must be analyzed in another way, the obvious mechanism being Agree. The analysis of past participle agreement given in section 2 does exactly what is required in replacing Spec-head agreement with Agree. The strong condition on the overt realization of Agree in (11), which arguably instantiates a version of the PIC, is, in the context of the current model, a more natural condition on the realization of overt agreement than Spec-head agreement. The fact that it has interesting crosslinguistic consequences, in addition to providing a natural analysis for the facts of Italian past participle agreement, further supports this approach.

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[13] However, it should be observed that the criteria for object agreement adopted in *WALS* do not correspond to our assumptions here. For example, both Spanish and Greek are classified as object agreement languages in *WALS* because they show systematic clitic doubling with objects. But this phenomenon is usually considered to be distinct from genuine object agreement in analyses of clitics stemming from Kayne 1975.

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