Past Participle Agreement in French: Agreement = Case

1. Introduction

Agreement may take place between two elements coindexed under predication (along the lines of Williams 1980 and Couquaux 1981) as exemplified by (1):

(1) a. Subject-tensed verb agreement in the configuration NP\textsubscript{i} INFL\textsubscript{i};

b. Subject-Predicate agreement in predicative structures of the type être NP\textsubscript{i} AP\textsubscript{i} (assuming Couquaux’s configuration (1981)).

c. Subject-Predicate agreement in relative clauses: NP\textsubscript{i} [S\textsubscript{f} Wh\textsubscript{i} [S\ldots]]

Agreement under predication consists of a feature copying (e.g. Faconnière 1974) or checking rule (e.g. Rivas 1977; Lefebvre and Dubuisson 1977) which accounts for the fact that coindexed elements will bear the same features with respect to [a person], [β number], [γ gender] and, possibly, [μ Case] (in languages like Latin). Agreement features are realized on [+N] elements (e.g. nouns, adjectives, determiners, and INFL, assuming that in languages exhibiting agreement on the lexical element filling the INFL node, INFL bears the feature [+N] (e.g. Chomsky 1979).

In this paper I will argue that participle agreement in French is not an instantiation of the above type of agreement: it does not operate under predication and it cannot be formulated in terms of a feature copying/checking rule. I will explore the idea that past participle agreement operates from the trace of the NP it governs (section 2) and that past participle agreement phenomena are related to Case in several ways (discussed at length in section 3) summarized in (2):
(2) a. agreement morphology on the past participle spells out the features of the trace of the NP governed by the past participle. Agreement morphology may be viewed as a Case marker on the past participle thus reflecting the Case assigning properties of the past participle.

b. the rule moving the object of the past participle out of its maximal projection (the VP), is an instantiation of Co-Case marking, a special case of co-indexation which Co-Case marks an element moved out of its projections with the projection it is moved out of. In Lefebvre and Muysken (1982), Co-Case marking (or Move CASE) was suggested to account for non-configurational properties of languages. This analysis was shown to account for the rather free word order in languages which have a rich Case morphology. For Romance languages, co-Case marking was suggested to account for cases of extraction of non-heads out of their projections such as quantifier float (e.g. ils sont tous venus), extraction of nominal complements out of their projection (e.g. de qui, Jean a-t-il vu [la fille [e₁]]), and extraposition. Here I suggest that extraction of objects out of VP in passive and ergative constructions (reaising from object to subject) is an instantiation of such a rule.

c. agreement morphology on the past participle participates in a chain linking the past participle, its maximal projection and the NP moved out of this projection (i.e. the preposed object of the past participle. This chain has the properties of a Case Chain such as defined in Chomsky (1981:333 ff).

Predictions of this proposal and some of its consequences will be discussed in sections 4 and 5 respectively.
2. Past Participle Agreement in French operates from the trace of the NP it governs

This section summaries the facts of past participle agreement dispersed in the literature and establishes the structural conditions under which past participle agreement takes place. In doing so, I will assume the following:

(3) a. intransitive verbs divide into two groups: true intransitives (e.g. téléphoner) and ergative verbs (e.g. arriver) (Burzio 1981)

b. ergative verbs are characterized by the fact that their surface subject is base generated in the same position as the direct object of a transitive verb; [VP V NP]; ergative verbs are distinct from true intransitives, the subject of which is base generated under S: [S NP VP]; (Burzio 1981)

c. pronominal verbs (e.g. se donner), inherent reflexives (e.g. se souvenir), verbs occurring with ergative 'as' (e.g. se briaer) and passives, are like ergative verbs; their subject is base generated in object NP position.

Contexts in which past participle agreement occurs are contexts involving movement of the direct object out of its projection (VP):

(4) a. les maisons q que nous avons construites t₁
    RELATIVIZED OBJECT

b. ils les ont construites t₁
    CLITICIZED OBJECT

c. elles ont été construites t₁
    PASSIVE

d. trois filles sont arrivées t₁
    ERGATIVE VERB

e. elles se sont livrées t₁ à la police
    PRONOMINAL VERB
3. Past Participle Agreement and Case

In this section I explore the idea that past participle agreement is related to Case along three dimensions: agreement morphology may be viewed as Case morphology (3.1), object movement out of its maximal projection is an instantiation of Co-Case marking (3.2), elements participating in past participle agreement form a Case Chain (3.3).

The theoretical background relevant to the discussion of each of these points is summarized in (8), (9) and (10). Ergative and passive verbs share the following properties:

(8) a. they assign a theta role to the NP they govern in the configuration [\[\_p V \_NP\]]

b. they do not assign a theta role to the subject position in the configuration [\[\_S V \_np\]]

c. I will depart from the general assumption that ergative and passive verbs do not have Case assigning properties. Consequently, the motivation for object to subject NP movement, generally assumed to be due to the fact that objects of ergative and passive verbs have to move to subject position in order to be assigned Case, will have to be revised.

Co-Case marking is defined in (9) along the lines of Lefebvre and Huyssen (1982):

(9) a. co-Case marking is a special case of co-indexing which co-Case marks elements moved out of their projections with the projections they are moved out of.

b. co-Case marking or move Case is a Wh-type movement rule.

c. since Case is a property of maximal projections only maximal projections (e.g. \[N''\]) but not \[N\')] are involved in co-Case marking.

d. co-Case marking will only involve elements which bear Case.
Aspects of Case Theory relevant to the discussion are:

(10) a. lexical NPs and variables have to have a Case (Case Filter); traces of NPs do not have Case (Chomsky 1981:175).

b. Case is a property of maximal projections; it can be morphologically realized only on [+N] elements (cf. Lefebvre and Muyssen, to appear).

c. Case may be assigned to a chain (cf. Chomsky 1981:333).

d. Case chains are created by Wh-type movement rules.

e. All elements in a chain must bear the same Case (Chomsky 1981, Kayne 1982, Pollock 1983).

f. A chain can contain only one element morphologically marked for Case (Lefebvre and Muyssen, to appear).

g. Case chains have two purposes in the grammar:
   - Escaping the Case Filter
   - Ensuring Theta connectedness between elements moved out of their projection and the projection they are being moved out of (cf. Lefebvre and Muyssen, 1982).

h. Since Case chains are created by Wh-type rules and since they ensure Theta connectedness (cf. Chomsky 1981, Lefebvre and Muyssen, 1982) they are relevant at LF.

3.1. Agreement morphology and Case

I propose that agreement morphology on the past participle is the morphological realization of the features [a gender], [β number] and [γ Case] of the trace of the NP governed by the past participle and that agreement morphology may be viewed as a Case marker on the head of a projection, here the past participle. Implicit in this proposal is that ergative and passive verbs have Case assigning properties;
what are the Case assigning properties of passive and ergative verbs? In what sense may agreement morphology on the past participle be related to Case morphology? These questions will be discussed in turn.

I will adopt Pollock's (1983:137) proposal that ergative verbs assign Case to their object and extend this proposal to passive verbs. This proposal is motivated by facts of the type (5f) where the object NP has remained in situ and must receive Case under Government in its basic position. The lack of agreement on the past participle in (5f) and in similar sentences, thus reflecting absence of trace, hence of movement, confirms this analysis. I will disagree with Pollock, however, that the Case assigned by ergative verbs to their object is [+nom], and suggest that ergative and passive verbs in French assign objective Case to their object (as in ergative languages).²

I will assume that objective Case has two realizations in French: accusative, the marked form, and what I will refer to as 'ergative', the unmarked form, which is morphologically non-distinct from the nominative form in French. This distinction accounts for the distribution of clitic pronouns in these constructions as illustrated in (11), where both je and me are analyzed as being objective:

(11) a. je (ergative) suis allée
    b. *me (accusative) suis allée

If passive and ergative verbs do indeed assign Case to their object, object raising is no longer motivated by Case assigning requirements, as has been widely assumed in the literature. What, then, is the motivation for raising? I suggest that object to subject raising, in these constructions, follows from the fact that, in French, the subject position has to be filled, unless the proper context for subject inversion is met (cf. (5f)). This follows from ECP given that French is not a Pro-drop language.

I now turn to the second question raised from relating agreement morphology to Case morphology: in what sense may agreement morphology on the past participle be related to Case morphology? Here two problems arise. First, according to (10b), only [+N] elements are Case carriers: are past participles eligible to bear Case morphology? Here there are two options. Either we can assume that past participles are
of the category [+N +V], like adjectives, and consequently they can be Case carriers; or, we can assume with Chomsky (1981) that passive verbs are neutral with respect to the feature [N]; in this option past participle will be allowed, but not required, to bear Case, by virtue of being neutral with respect to the feature [N]. Second, it is clear that the agreement morphology on the past participle does not correspond to the Case assigned to the past participle. That an element may bear the Case of another element is morphologically manifested in languages exhibiting Case floating phenomena. In (12), taken from Quechua, the accusative Case on the nominalized verb corresponds to the Case assigned by the nominalized verb to its object, warma-, the latter appearing Caseless at surface structure.

(12) [warma riku-aqa- y - te], hamu-nqa (QUECHUA)  
girl see NOM 1 AC come 3PS  
'The girl I saw will come' (from Lefebvre and Muyssen, to appear).

Summarizing: like transitive verbs, past participles, passive and ergative verbs assign objective Case to their object; the trace left by object preposing has the features [a gender], [b number], [c Case]; agreement morphology on the past participle is the morphological realization of these features (which may very well be the way Case absorption is instantiated); the whole features matrix may be seen as Case on the past participle; according to the percolation convention, the features on the head percolate to the maximal projection, in such a way that both the past participle and its maximal projection (VP) will bear the same Case features; conversely, absence of agreement morphology on the past participle will leave the VP node without Case features. In section 4 I return to this point.

3.2. Object preposing and co-Case marking

If we assume on the one hand that passive and ergative verbs are Case assigners (as suggested above) and on the other hand that traces of NPs cannot be in a Case position (as stated in (10a)), the rule which raises object NPs to subject position in ergative and passive constructions cannot be of the type Move NP. In this section I will argue that the rule which moves object NP to subject position in
ergative and passive constructions is an instantiation of Move a, where a = Case, a Wh-type rule. In doing so I will be using the standard vocabulary; I nonetheless consider Move Case as co-Case marking (such as defined in (9)) a special case of co-indexation rather than of movement.

Move Case exhibits the diagnostic features of Wh-movement (cf. Chomsky 1977, 1981). Move Case leaves a trace which is in a Case marked position under the assumption that past participles have Case assigning properties; the trace is thus a variable. It operates through a COMP-like position, created by the Case feature on the VP due to percolation of the features on the head encoded by agreement morphology. The landing site of the preposed object is a Theta-less position; in (4a) the object of the past participle is moved to COMP; in (4b) the object is in a clitic position; in (4c) - (4g), the object of the past participle has been moved to subject position, a Theta-less position, since passive and ergative verbs have the property of not assigning a Theta role to their subjects. The landing site for the preposed NP has to be an A' position, Wh-type rules moving elements out of an A position to an A' position; for (4a) and (4b), COMP and clitic positions are both A' positions; is subject position, the landing site for object NP in passive and ergative constructions, an A' position as well? I will assume, with Koopman and Sportiche (1985), that subject position is an A' position, a proposal which, in the case under study, is compatible with the fact that subject position is a Theta-less position. Finally, object to subject raising, in passive and ergative constructions operates in an unbounded way, like Wh movement; it may involve several XP nodes, a phenomenon comparable to unbounded Wh movement involving several S' nodes; in (13) the object of the second past participle has moved out of two XP nodes. (X being equal to V or A depending on the representation of the sentence in (13)).

(13) a. la lettre que_1 Jean a _VP_1 [considéré

   _VP_1[écrite_1 par Marie]

b. la lettre que_1 Jean a _VP_1 [considéré

   _A_1[écrite par Marie]]

If this analysis is correct, object preposing in the constructions under study is a Wh-type movement rule, move
Case, not an NP movement type rule. Object preposing may thus be analyzed as an instantiation of Co-Case marking resulting in the co-indexation of the preposed object, the past participle, (due to agreement morphology on it) and its maximal projection through percolation of the features on the head onto the maximal projection. This is illustrated in configuration (14):

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(14)
  NF_i  VP_i
  [\alpha Case]  [\alpha Case]
  \overline{\alpha}  \overline{\alpha}
  V_i
  [\alpha Case]
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The value of \(\alpha\) in (14) is objective; in passive and ergative constructions the NP filling the subject position will thus bear objective Case, a situation which resembles what has been referred to as Quirky Case in other languages. Note here that since subject position is an A' position it will not receive Case from INFL and there will be no Case conflict on the subject.

In the above analysis, Move Case/Co-Case marking exhibits the same diagnostic features as Move Wh. At a more abstract level, however, the two rules may differ, which might be due to several factors: COMP can only have one index assigned to it, while Co-Case marking can occur many times; Wh phrases function as Quantifiers at LF while raised [+W] elements do not (see Lefebvre and Muyssen (1982) for further discussion of this point).

3.3. Agreement and Case chains

The co-indexed elements form a chain which has the properties of a Case Chain, properties listed in (10). Move Case defines the trace of the preposed NP as a variable in a Case marked position. The NP moved by Move Case has a Case due to its participation in a chain created by a Wh-type movement rule. The Case Chain is headed by agreement morphology on the past participle which thus functions as an operator at LF. All elements in the chain bear the same Case namely objective Case assigned by the past participle. There is only one element morphologically marked for Case: the past participle. We might say that the Case Chain created by
Move Case and past participle agreement, insures Theta-connectedness between the proposed object and the past participle that assigns it a Theta-role.

In this section I explored the proposal that past participle agreement and related phenomena are linked to Case in several ways: agreement morphology on the past participle may be viewed as Case morphology, extraction of object NPs out of their projection is an instantiation of Nova Case or Co-Case marking, Co-indexed elements form a chain which has the properties of a Case Chain.

4. Predictions

The above proposal predicts that past participle agreement will be impossible in impersonal il constructions and in sentences containing the partitive en. The analysis in section 3 also predicts agreement facts in sentences referred to as 'the Ruwet (1982) sentences'. I shall discuss these cases in turn.

4.1 Impersonal il constructions

There is no past participle agreement in impersonal il constructions as shown in (15):

(15) a. combien de filles est-il arrivé

b. *combien de filles est-il arrivées

Impersonal il, as it occurs in (15), has the following properties: it is a clitic (Kayne 1975:81-105), it is morphologically marked for number ([+plural]), gender ([+feminine]), person ([3rd person]) and Case ([+Nom]) (Pollock 1985:133). Il does not agree in gender and number with the logical subject of its clause, which follows from the fact that il is not the subject. The latter is compatible with the fact that il does not occur in a Theta position. In impersonal il constructions, the object NP of the ergative verb has to be an indefinite/existential quantifier as illustrated in (16):

(16) a. Il est arrivé une fille/*la fille
b. il est arrivé combien de filles/*toutes les filles

The data in (16) show that il has the property of assigning scope to the direct object of the past participle. Following Williams, a scope marker has to govern - c-command and be adjacent to - the element to which it assigns scope. In (17), the tree structure of (16) il c-commands the object NP but it is not adjacent to it. In order to reconcile the French data with Williams' definition of government I suggest that, as a scope marker, il governs (c-commands and is adjacent to) the whole predicate phrase it is the subject of (in (17), the tree structure is of the type proposed by Chomsky (forthcoming)).

(17)

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  il
   / \ Predicate Phrase
    /   \ INFL
   V   \ NP
    \   
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The Government relationship is represented in (17) by co-indexation of il and the predicate phrase it governs. I will assume that the index is transferred onto the two nodes dominated by the Predicate phrase node, since both INFL and VP constitute the predicate phrase. Assuming this proposal, il will transmit its features to the nodes it is coindexed with in such a way that the VP will bear the feature [+nominaive]. We can now explain why there cannot be past participle agreement in impersonal il constructions. Agreement morphology on the past participle induces percolations of Case features realized on the past participle to the maximal projection VP. This Case feature is [+objective]. The Case feature transmitted by il to the VP is [+nominaive]. Past participle agreement creates a Case conflict on the VP; this is why there cannot be past participle agreement in impersonal il constructions. In (15e), combien de filles will be Co-Case marked with the projection it is moved out of, and will thus be nominative. Lack of agreement on the past participle manifests the impossibility for the past participle to assign Case to its
object in this context, a situation which follows from the analysis in section 3.

4.2 En constructions

Past participle agreement is impossible in constructions containing the participle en as shown in (18):

(18) a. Marie en a repris (en-des pommes)

b. *Marie en a reprises

With Hilker (1978) and Kayne (1975) I will assume that en, in (18), pronominalizes only part of the NP it is part of (probably N') thus not the whole projection. Impossibility of past participle agreement in this context is predicted by
the analysis presented in this paper. Past participle agreement is defined as operating from the trace of the NP it governs. According to (9c), the trace must be that of the maximal projection. In (18) the trace governed by the past participle is not that of the maximal projection but that of a N'.

4.3 Ruvet' sentences

Sentences which have come to be known as the Ruvet' sentences such as (19) and (20) exhibit a contrast in past participle agreement.

(19) une femme Sₐ [qu_i on a VP [dit_t_i AP [t₁ belle]]]

(20) une femme [qu_i on a dit Sₐ [t₁ [t₁ ne pas être t₁ belle]]]

While in (19) agreement is licensed, in (20) past participle agreement would be ungrammatical. In both cases, a small clause is involved; in (19), SC = AP, while in (20), SC = S'. These data show that while S' is a barrier to agreement, AP is not. These facts follow from the analysis proposed in this paper. Agreement operates from the trace of the NP governed by the past participle and the trace is created by Move Case/co-Case marking; this predicts that past participle agreement will take place only when Move Case is involved.
This prediction is borne out by the data in (19) and (20). In (19) the NP object is moved out of its projection by Move Case hence licensing past participle agreement. In (20) however, Move Case moves the object NP to subject position of the embedded S. From that position the NP is moved to COMP by Wh movement and then from that COMP up to a higher COMP, by Wh movement, not by Move Case. Hence in this context, the past participle dit is not in the right configuration to bear agreement features: no NP has been moved out of its projection and hence the past participle cannot participate in a Case Chain headed by agreement morphology on it.

5. Discussion

In this paper I documented a twofold proposal accounting for past participle agreement in French. I showed that the generalization according to which past participle agreement operates from the trace of the object governed by the past participle, accounts in a unified way for past participle agreement phenomena, regardless of the type of auxiliary involved, and regardless of the type of verb involved be they transitive, passive, or ergative. This generalization accounts for the locality of the rule in spite of the fact that, according to my analysis, the 'trigger' for the rule consists in an unbounded phenomenon, object preposing, achieved through Move Case/Co-Case marking. This generalization has advantages over earlier proposals. Burzio's (1981) proposal that "past participle agrees with the element which binds its direct object" is problematic for two reasons: first, it is problematic for impersonal il constructions: in (6) it is not il that binds the trace, il being non-referential, but the Wh phrase in COMP; second as pointed out by Kayne (1985) this formulation does not account for the locality of the phenomenon. The general idea of Kayne's (1985) proposal that past participle agrees with its subject, - an analysis which bears on the assumption that past participles and their object constitute a small clause, and that the object of the past participle is being moved to subject position of the small clause before moving further on - is problematic if we are to take Burzio's thesis on ergative constructions seriously (see Bouchard forthcoming for a thorough discussion of Kayne's proposal).
The bulk of the paper was dedicated to relating past participle agreement phenomena to Case in several ways: agreement morphology on the past participle may be viewed as Case morphology, agreement is triggered by NP raising, an instantiation of Move Case/Co-Case marking; and finally, the elements involved in past participle agreement and Move Case participate in a chain which has the properties of a Case Chain. This proposal has the advantage of linking NP raising in the constructions under study to other movement rules in French accounting for extraction of non-heads out of their projection (e.g. quantifier float, extraposition, etc. cf. section 1), a result which is not borne out by Kayne's analysis in terms of small clause, in spite of the fact that the COMP like Case feature on VP in my analysis, shares some properties with Kayne's small clause analysis) and of linking the phenomena under study to word order flexibility in other languages (e.g. Quechua). Another advantage of this proposal is that it allows us to account for all the phenomena related to past participle agreement in a unified and principled way bearing upon the theory of Case (and the theory of movement discussed here in terms of co-Case marking). Absence of agreement in clauses containing the partitive en follows from the analysis of agreement as being an instantiation of Case and from the fact that Case is a property of maximal projections. This further provides us with an argument for associating past participle agreement to Case, a property of maximal projections, over an analysis associating past participle agreement to Theta assigning properties of past participles (such as in Bouchard Forthcoming), Theta roles being assigned to heads not to maximal projections. It thus appears that it is because of its casual properties that past participle agreement may "constitute a system of clues to the recovery of the thematic structure" (Burzio 1981:7).

Assuming the analysis presented in this paper has some validity, it follows that agreement phenomena in French fall into two types of rules operating in different components of the grammar: agreement achieved through predication, visible at PF (cf. section 1) and agreement resulting from co-Case marking and visible at LF. The first type of agreement falls under Predication Theory; the second type of agreement falls under Case Theory. If this is correct it should not be necessary to consider agreement an independent module of the grammar as proposed in Pollock (1983).
Move Case/Co-Case marking accounts in a unified way for extraction of objects out of their projection, be they Wh-clitics or NPs. If our analysis is correct, it dispenses with NP movement in French. This has consequences for trace theory for, in all cases under study in this article, the trace left by object preposing is a variable in a Case marked position. I leave it an open question, for now, as to whether agreement morphology on the past participle 'absorbs' all of the features of the trace left by object preposing.7

NOTES

1 I would like to thank Denis Bouchard, Isabelle Haik, Monique Lemieux, Yves-Charles Morin, Laurie Tuller, Henk Van Riemdijk and Edwin Williams for discussing some of the issues presented in this paper with me.

2 McAl'Nally (1983) attributes to Emonds the idea that past participle agreement with avoir agrees with the trace of its subject. She generalizes this idea to other constructions. In turn I generalize this idea to all the constructions listed in (4).

3 See also Sobin (1985) for facts drawn from Ukrainian which show that passive verbs assign Case (morphologically realized as accusative) to their object.

4 If we adopt this second option, we have to revise our definition of Case bearers in terms of elements which do not bear the feature [-N].

5 For a discussion on agreement chains, see also Pollock (1983).

6 See also Bouchard (forthcoming) who suggests that impersonal il is coindexed with its VP.

7 In this case also I hold that agreement morphology on the quantifier may be seen as a Case feature, which allows the quantifier to float out of its projection to a Theta-less position (adverbial position). (See Lefebvre, in preparation).

8 The consequences of the proposal made in this paper will be explored in detail in another paper, given the reduced size this paper must have.
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