

On the relation of [gender] Agreement

Evidence from Friulian

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Pollock (1989) initiated a paradigm of research within the Principles and Parameters framework where Agreement (Agr) as a functional projection has played an increasingly significant role. The legitimacy of this programme has been called into question by Chomsky's (1995) Minimalist Program. Chomsky rejects Agr on conceptual grounds, so that in his system only those functional projections with clear semantic content such as Tense and Negation are retained. Agree is analysed in terms of feature movement and a concept of matching that is left unclear. In Chomsky (1998,2000) Agree is further defined as a relation that holds between a goal and a probe within a minimal domain that leads to feature deletion under matching.

This paper focuses on the nature of agreement specified for [gender, number] features and gives empirical support to Chomsky's rejection of Agr(0). Exploiting Cinque's (1999) adverb hierarchy, the paper shows that the presence of a functional projection devoted to object agreement cannot be empirically justified. It is proposed that the agreement relation established between a past participle and its direct object, and in general all instances of agreement specified for [gender] features, exploits the relation of c-command, suggesting that the latter is indeed active within the narrow syntax, contra Chomsky (2000). Finally, we suggest that not all instances of agreement are to be subsumed under the same mechanism: it seems plausible to claim that agreement specified for [gender] and agreement specified for [person] are instantiated through different configurational structures.

Introduction

'Agreement' is a concept widely used in various syntactic frameworks that differ rather substantially from one another. In each of them, the term 'agreement' refers to the same general phenomenon, i.e. a 'systematic co-variation of lin-

guistic forms' (Pollard & Sag 1994: 60), but in each framework 'agreement' has been formally expressed in different ways.

Derivation-based and constraint-based theories of language present two very interesting terms of comparison with respect to the way the agreement process is formulated. In a constraint-based theory such as Head-driven Phrase Structure Grammar or Lexical Functional Grammar, agreement is seen as the result of co-ordination of information deriving from two different sources about one linguistic object. The two elements that enter an agreement relation both provide partial information about a single item, and the instantiation of agreement is a simple reflection of the compatibility of the information of the two sources. If we take the example of subject-verb agreement, the subject carries some syntactic features specification such as person and number. The verb is itself specified for the same features, and agreement between the two is a confirmation that the two partial sets of information are compatible. Agreement in these theories is, therefore, *an indication of a condition*, i.e. the fact that the features carried by the two agreeing items do not clash. There is no explanation as to the nature or details of the operation involved in the feature matching process.

Derivation-based theories, on the other hand, look at agreement as a process, i.e. an operation that either copies or moves bundles of features from one linguistic item to another. The operation is subject to directionality: the nominal item is inherently specified for some features which are then moved or copied onto the target item. The agreement controller, i.e. the nominal, sets the value of the agreement terms and the direction of the operation, and its specification logically precedes the one of the target element.

In recent developments of the derivation-based theories, such as Principles and Parameters, Government and Binding first and later Minimalism, agreement has played an increasingly significant role. In the former, it has been formally captured as a relation holding between two items occupying specific position in the structure, the Head and Specifier of a particular projection. This has then been identified as a functional projection, the Pollockian Agr, later labelled by Chomsky (1991) as AgrS, for subject agreement, to distinguish it from a lower agreement node, AgrO, responsible for object agreement. Thus agreement is not only seen as a relation between two linguistic objects, α and β , but it is also a syntactic position into which elements raise in order to enter a configurational relation with their target. The existence of Agreement functional projections is further extended to the DP, to the participial clause, (Friedemann & Siloni 1997; Belletti 2000, 2003), and to the CP (Shlonsky 1997¹). This expansion of the agreement functional projections seems to sug-

gest, in an indirect way, that all instances of agreement should be subsumed under the same process.

Agreement functional projections are called into question by Chomsky's Minimalist Program. Chomsky rejects all agreement functional projections on the basis that they lack semantic content. The term 'agreement' is replaced by a concept of 'feature checking' and 'feature deletion under matching': which can be achieved configurationally or by virtue of the items involved being in the same 'domain'.

Investigating the dynamics of PtPPL agreement in Friulian, this paper provides empirical support for the elimination of an AgrO projection responsible for object agreement, and aims to make a contribution to the understanding of agreement in general. Section 1 presents the data relevant to the discussion, Section 2 introduces the theoretical assumptions underlying the analysis. These are tested against the interaction of the PtPPL and the placement of adverbials following Cinque's (1999) adverbial hierarchy in Section 3. Section 4 puts forward an analysis, compared to the conclusions reached by Guasti and Rizzi (2002) and by Friedmann and Grodzinsky (2000) in Section 5: it is proposed that while agreement specified for [gender] involves a feature copying process that targets 'suitably specified' elements within a specified domain, agreement specified for [person] may involve a functional projection.

1 The data

1.1 Friulian and standard Italian compared

The data presented in this article is from Friulian, a Romance language spoken in North-eastern Italy. Friulian is an umbrella term used to refer to many different varieties; the one investigated here is a central-southern variety spoken in the areas between Palmanova and Aquileia. Together with the Ladin dialects of the Dolomites in South Tyrol (Italy) and the Romansch dialects of Grisons (Switzerland), Friulian is one of the Rhaeto-Romance languages (cf. Benincà & Haiman 1992; Vanelli 1997).

Friulian (Fr), like Standard Italian (SI), shows an alternation between two auxiliaries, *essere* 'to be' (*E*) and *avere* 'to have' (*A*) in the formation of the perfect tense *passato prossimo*, composed of the tensed form of the auxiliary and the past participle of the main verb.² In SI movement of the nominal element determines whether the past participle (PtPPL) agrees or not with its nominal argument generated post-verbally. In rather simplistic terms, no agreement

is triggered between the PtPPL and the DP in post-verbal position with the A auxiliary, whereas agreement obtains when the E auxiliary is selected, as exemplified in (1):

- (1) a. Giovanni ha visto una bella casa
Giovanni have.PRES.3SG see.PtPPL.M.SG a.F.SG beautiful.F.SG
house.F.SG
'Giovanni has seen a beautiful house'
- b. Maria è andata a casa
Maria be.PRES.3SG go.PtPPL.F.SG to home.F.SG
'Maria has gone home'

Fr is of interest because as well as displaying agreement between the PtPPL and a DP generated post-verbally when the E auxiliary is selected, it also does so with the A auxiliary:³

- (2) a. Marie e a mangiadis li caramelis Fr
Marie scl have.PRES.3SG eat.PtPPL.F.PL the.F.PL sweet.F.PL
'Mary has eaten the sweets'
- b. Toni el a comprâs i carciofs Fr
Toni scl have.PRES.3SG buy.PtPPL.M.PL the.M.PL artichoke.M.PL
'Tony has bought the artichokes'

This construction displaying agreement was allowed in older periods of Italian, but has now disappeared from SI and is generally considered archaic or is indeed restricted to very high stylistic contexts. In order for agreement to be licit with the A auxiliary, the direct object (DO) needs to undergo cliticisation, as shown in (3a) and b. This, as expected, also applies to Fr:

- (3) a. Maria ha mangiato la torta SI
Maria have.PRES.3SG eat.PtPPL.M.SG the.F.SG cake.F.SG
'Mary has eaten the cake'
- b. Maria l' ha mangiata; /*mangiato_i t_i SI
Mary it.F.SG have.PRES.3SG eat.PtPPL.F.SG /*M.SG t_i
'Mary has eaten it'
- c. Marie e a mangiade le torte Fr
Marie scl have.PRES.3SG eat.PtPPL.F.SG the.F.SG cake.F.SG
'Mary has eaten the cake'
- d. Marie lei a mangiade_i; /*mangiât t_i Fr
Mary it.F.SG have.PRES.3SG eat.PtPPL.F.SG /*M.SG t_i
'Mary has eaten it'

Given the contexts in which PtPPL agreement obtains in SI, the standard analyses (Burzio 1986; Kayne 1989; among others) have invoked movement of the post-verbal DP out of the VP layer as a necessary condition.⁴ It is evident from the examples in (2) that the movement analysis cannot satisfactorily account for the Fr data, since agreement is triggered without any apparent movement of the DP.

1.2 Some reflections on agreement features

Let us now take a closer look at the type of agreement instantiated between the PtPPL and its DP object. Unlike subject-verb agreement which is specified for [person, number] features, verb-object agreement is specified for [gender, number], and as such it is reminiscent of adjectival agreement. Moreover, as far as verbs are concerned, marking of [gender] features is only restricted to the past participle, and is completely disallowed with any other verb form: cf. (4a) and b, and (5a) and b, with examples of hypothetical forms of the present and imperfect indicative agreeing in [gender, number] features with their DO.

- | | | | | | |
|-----|----|------------------------------------|--------------------|--------------------|------------|
| (4) | a. | Toni el scrif | /*scrif-e | une letare | Fr |
| | | Tony scl write.PRES.3SG | /*.PRES.3SG.F.SG | a.F.SG letter.F.SG | |
| | | 'Tony writes a letter' | | | |
| | b. | Marie e mangjave | /*mangjave-ás | pes di | |
| | | Mary scl eat.IMPERF.3SG | /*.IMPERF.3SG.M.PL | chest.M.PL | of |
| | | polés | | | |
| | | chicken | | | |
| | | 'Mary used to eat chicken breasts' | | | |
| (5) | a. | Antonio scrive | /*scrive-a | una lettera | SI |
| | | Tony write.PRES.3SG | /*.PRES.3SG.F.SG | a.F.SG letter.F.SG | |
| | | 'Tony writes a letter' | | | |
| | b. | Maria mangiava | /*mangiava-i | petti di pollo | SI |
| | | Mary eat.IMPERF.3SG | /*.IMPERF.3SG.M.PL | chest.M.PL | of chicken |
| | | 'Mary used to eat chicken breasts' | | | |

This is reflected in the feature specification of the two agreement functional projections, AgrS and AgrO: [person, number] for the former, [gender, number] for the latter. If, as it seems to have been tacitly assumed, all instances of agreement are to be accounted for in the same manner, it would be desirable to maintain uniformity across Agr functional projections. The question that needs to be addressed is whether the different feature specification is a simple idiosyncrasy or whether it reflects a deeper difference between AgrS and AgrO.

Furthermore, the evidence put forward in (4) and (5) suggests that the interpretation of PtPPL agreement should be treated as a phenomenon strictly linked to the past participle itself rather than to the function of direct objects in general, thus shifting the focus from AgrO to the characteristics of the PtPPL. This has indeed already been noticed by Siloni and Friedman (1997) and Belletti (2003), who distinguish between the object Caseagreement projection AgrO and the one in which PtPPL agreement obtains, AgrPstPrtP. Another question that we need to ask is, irrespectively of the label we choose for the Agr functional projection (AgrO or AgrPstPrtP), whether it is actually necessary to invoke a functional projection to provide an explanation for the instantiation of PtPPL agreement.

1.3 PtPPL agreement: A semantic or syntactic phenomenon?

In the literature a variety of semantic accounts have been proposed for the agreement instantiated between a PtPPL and a post-verbal nominal (cf., among others, Centineo 1996). These are based on a verb classification method exploited by Vendler (1967), which distinguishes among 'activity' (run, push a cart), 'state' (think, desire), 'accomplishment' (run a marathon, build a house) and 'achievement' (reach the top, find a wallet) verbs.⁵

According to a semantic analysis, the instantiation of PtPPL agreement is dependent on the DO 'measuring out' the event described by the verb. The following examples clearly show that this is not the case for Fr: although the DO is indefinite (i.e. a hare NP) and should not, therefore, be able to measure out the event of eating and cooking, PtPPL agreement obtains all the same:

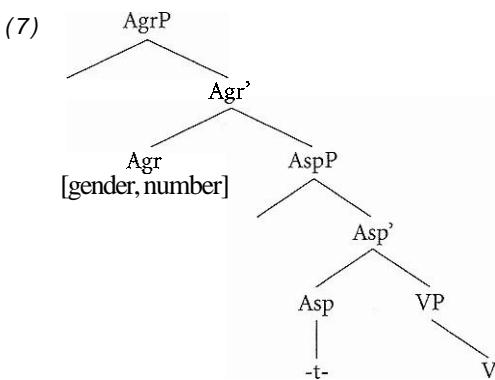
- (6) a. E ai mangiadis cussutis dute le dì
scl have.PRES.1SG eat.PtPPL.F.PL courgette.F.PL all the day
'I have eaten courgettes all day long'
- b. E ai cues carciofs dute le dì
scl have.PRES.1SG cook-PtPPL.M.PL artichoke.M.PL all the day
'I have cooked artichokes all day long'

Given that semantic interpretation does not seem to play a role in the instantiation of agreement in Fr, a syntactic, rather than a semantic account, is pursued here.

2. Theoretical claims

In order to answer the two questions formulated in the previous section, we adopt Cinque's (1999) adverbial hierarchy and investigate the interaction of PtPPL agreement with the position of the PtPPL with respect to the adverbs that occupy the area that delimits its movement. For argumentation purposes we follow a *reductio ad absurdum* line of reasoning, assuming that AgrO does, indeed, exist. We then investigate the empirical consequences of this theoretical assumption and its effects on word order and agreement instantiation.

The formulation of AgrO was empirically justified by PtPPL agreement: it was assumed that the PtPPL and its DO raised to it in order to establish a [Spec, Head] relation resulting in agreement between the two. The PtPPL has been claimed, for independent reasons (cf. Belletti 1990: 13; Pollock 1989:413; Zanuttini 1997), to lack a functional projection containing independent [tense] features. The perfective morpheme *-t-* (comparable to the English *-ed*) is analysed as an expression of aspectuality. Following Baker's (1985) 'Mirror Principle', Belletti (1990) assumes two functional projections dominating the PtPPL: AgrP, carrying [gender, number] features, and AspP, containing the perfective morpheme. AgrP dominates AspP which, in turn, selects the VP as its complement, as (7) shows:



In the general approach to inflectional morphology developed by Baker (1985, 1988), morphologically complex words are derived from more basic elements (roots, suffixes, stems) by means of a syntactic process of incorporation, a variant of Move Alpha affecting heads. By looking at the order the morphemes appear in the PtPPL, both in SI and Fr, following Baker we can interpret this to be the reverse of the order in which the functional projections appear, with respect to each other, in a syntactic tree. Given, for example, the PtPPL in (3b),

mangiata 'eaten', we have a verb stem *mangi-*, the morpheme that forms the PtPPL, *-at-*, and the [feminine, singular] morpheme *-a*. The PtPPL needs to raise into two functional projections in order to check its aspectual and agreement features. Crucially, the aspectual functional projection needs to be higher than the agreement one, which will be simply labelled 'AgrO'.

Given these assumptions, and in view of the data in (2), it seems plausible to make the following hypotheses:

- (8) a. the lack of PtPPL agreement with an *in situ* direct object in SI is due to the PtPPL failing to raise to AgrO;
b. in Fr the PtPPL consistently raises to AgrO;
c. according to the structure in (7), the PtPPL is higher in Fr than in SI in sentences of the type of (1) and (2);
d. in SI the PtPPL occupies a higher position in sentences where the DO has undergone cliticisation, given that agreement is triggered.

We now test these hypotheses against Fr and SI data and adverbs positions.

3. Tests with adverbials

3.1 Cinque's system and verb movement

The testing ground for the hypotheses in (8) is provided by Cinque's adverbial hierarchy (1994, 1999). He suggests that UG does not allow variation among languages with respect to the type of functional projections and the hierarchical ordering they admit. Their rigid order is interpreted as a clear indication that they occupy fixed Specifier positions, allowing him to propose a hierarchy of adverbials (and consequently, of functional projections) that holds across languages. Adverbs are therefore taken to be the overt manifestation of the Specifiers of different functional projections, which in some languages may also manifest themselves via overt material in the corresponding head positions. The value of these observations lies in the assumption, following Pollock (1989), that several syntactic phenomena connected with word order can be interpreted in a very revealing way if taken to be a reflection of verb movement processes.⁷

3.2 Tests

For the purpose of this investigation, the more meaningful results are given by observing the adverbs that occupy those projections that delimit PtPPL movement. These, as specified in Cinque (1999), are *mica*, a negative marker expressing presupposition, *già* 'already', *più* 'any more', *sempre* 'always' and *completamente* 'completely'. The tests also include some lower adverbs like *tutto* 'everything' and *bene* 'well', since they mark the position to which the PtPPL obligatorily moves in SI, and accordingly they occupy the Specifier position of heads containing the aspectual features expressed by the *-t-* morpheme of the PtPPL.

(9) gives the relative order of these adverbials, taken from Cinque (1999:8): ' $>$ ' means linear precedence and reflects hierarchical structure:

- (9) mica > già > più > sempre > completamente > tutto > bene

The Fr counterparts of these adverbials are, in the same order, *mingul*, *zà*, *plui*, *simpri*, *completaminti*, *dut* and *ben*. Their relative order is tested in the examples in (10): their grammaticality was judged on the basis of these sentences being uttered neutrally, i.e. with no intonation breaks or particular stress on any words. All the examples are from Fr.

- (10) a. Mi an spiegât dut ben
I.DAT have.PRES.3PL explain.PtPPL everything well
'They explained everything well to me'
a'. *Mi an spiegât ben dut
I.DAT have.PRES.3PL explain.PtPPL well everything

Dut must precede *ben*.

- (10) b. E an rifat completaminti dut
SCL have.PRES.3PL redo.PtPPL completely everything
'They have done again completely everything'
b'. *E an rifat dut completaminti
SCL have.PRES.3PL redo.PtPPL everything completely

Completaminti must precede *dut*.

- (10) c. Marie e je simpri completaminti sense bês
Mary scl be.PRES.3SG always completely without money
'Mary is always completely pennyless'
c'. *Marie e je completaminti simpri sense bês
Mary scl be.PRES.3SG completely always without money

Simpri necessarily precedes *completaminti*.

- (10) d. Marie no je plui simpri cioche a misdi
Mary not be.PRES.3SG anymore always drunk.FSG at midday
'Mary is not anymore always drunk at midday'
- d. *Marie no je simpri p i cioche a misdi
Mary not be.PRES.3SG always anymore drunk.FSG at midday

Simpri must precede *plui*.

- (10) e. No mangiave zà cjarn a Pasche
not eat.IMPERF.3SG already anymore meat at Easter
'She/He did not eat meat anymore already at Easter'
- e. *No mangiave plui zà cjarn a Pasche
not eat.IMPERF.3SG already anymore meat at Easter

Plui necessarily precedes *zà*.

- (10) f. No an mingul zà clamât
not have.PRES.3PL NegPol already call.PtPPL
'They haven't already phoned'
- f. *No an zà mingul clamât
not have.PRES.3PL already NegPol call.PtPPL

Mingul must precede *zà*.

Given the transitivity of sequentiality, this is the respective order of these adverbials, which is exactly the same the one found in SI:

- (11) mingul > zà > plui > simpri > completaminti > dut > ben

Recall that these adverbs occupy Specifier positions of projections whose heads, i.e. the positions between them, are available to verb movement. (12), from Cinque (1999:45), shows with '+' and '-' respectively where the PtPPL can and cannot appear in SI:

- (12) + mica + gia + piu + sempre + completamente + tutto - bene -⁸

Fr patterns with SI: the PtPPL cannot appear after *dut* and *ben*, as shown in (13), but must necessarily appear before *dut*:

- (13) a. E vin risistemât dut ben
scl have.PRES.1PL re-arrange.PtPPL everything well
'We have re-arranged everything well'
- b. *E vin dut risistemât ben
scl have.PRES.1PL everything re-arrange.PtPPL well

- c. *E vin dut ben risistemit
SCL have.PRES.1PL everything well re-arrange.PtPPL
- d. E vin completamenti risistemât dut
SCL have.PRES.1PL completely re-arrange.PtPPL everything
'We have re-arranged completely everything'
- e. E vin risistemât completamenti dut
SCL have.PRES.1PL re-arrange.PtPPL completely everything

Summarising, these are the positions where the PtPPL can and cannot appear in Fr:

- (14) + mingul + zà + plui + completamenti + dut – ben

Just as in SI, in Fr the PtPPL has to raise to the head to the left of *dut*, after having passed through the head to the right of *ben* and that in between *dut* and *ben*. All other movements are optional. This position, i.e. the head of the Specifier hosting the adverb *completamente* 'completely', is identified by Cinque as the obligatory movement that the active PtPPL must undergo in order to check its 'perfect' features (1999: 102). The relevant functional projections involved in PtPPL movement, taken from Cinque (1999: 106), are shown in (15):

- (15) ...[*always*Asp perfect (?) [*just* Asp retrospective [*soon* Asp terminative
[*still* Asp continuative ... [*completely*Asp SgCompleptive (I)
[*tutto* Asp PlCompleptive [*wellVoice*⁹ ...

3.3 An interpretation

Belletti (1990) was formulated at a time when functional projections had just started to be recognised as the bolts in the clause's scaffolding, and their presence was still relatively limited. Cinque (1999) has created an explosion of functional projections, and even within the same category 'Aspect' he recognises a number of them, *perfect*, *retrospective*, *terminative*, *continuative*, *completive* just to mention a few. A univocal identification of Belletti's AspP with Cinque's Asp SgCompleptive(I) cannot be easily obtained. Crucially, though, Cinque's Asp SgCompleptive(I) is the only position into which the PtPPL has to raise in order to check its perfective features: were an agreement functional projection present, following Baker's Mirror Principle it would be higher than this aspectual projection. Let us now merge the two structures.

Under current theory, the function of the Agreement projection, be it AgrO or AgrP, as Belletti calls it, is to check the PtPPL's agreement features. Its po-

sition (cf. (7)) must be higher than Cinque's Asp $SgCompletive(I)$, and in order for PtPPL agreement to be triggered, the PtPPL must raise to it. On the other hand, (13) shows that the only obligatory movement that the PtPPL undergoes is into Asp $SgCompletive(I)$. Furthermore, (16) makes it clear that the PtPPL need not raise any higher when it shows agreement with a DO either in SI or in Fr, both in cases of cliticisation in SI (cf. (16a)), and when the DO remains *in situ* in Fr (cf. (16b)):

- (16) a. Lei abbiamo completamente mangiate t_i SI
They.ACC.F.PL have.PRES.1PL completely eat.PtPPL.F.PL
'We have completely eaten them'
- b. E vin completamenti mangiadis lis
SCL have.PRES.1PL completely eat.PtPPL.F.PL the.F.PL
cussutis Fr
courgette.F.PL
'We have completely eaten the courgettes'
- c. Li $_i$ vin completamenti mangiadis t_i Fr
They.ACC.F.PL have.PRES.1PL completely eat.PtPPL.F.PL
'We have completely eaten them'

In all the above examples, the PtPPL remains in the head of the functional projection hosting *completamente* and does not raise into a higher projection, irrespectively of whether or not agreement morphology shows on it.

Let us now turn to the hypotheses made in (8). What the data in (16) dearly show is that the position occupied by the PtPPL does not change, irrespectively of whether it carries agreement morphology or not: hypotheses c and d are thus not correct. Consequently, hypotheses a and b are also not supported by the data. Recall that these had been made on the assumption that an AgrO projection existed: since they do not hold it must be concluded that the underlying assumption does not hold either. Empirically, the existence of a functional projection responsible for the instantiation of PtPPL agreement is not justified. If the instantiation of PtPPL agreement is not dependent on the PtPPL raising into an Agr functional projection, there are a number of ways in which the agreement could be accounted for. These possibilities are investigated in the next section.

4. Towards an account of PtPPL agreement

The evidence put forward in the previous section could be interpreted in different ways. From a theoretical point of view, we are left with the following alternatives:

- (17) a. In Fr there is a pro realised in [Spec, AgrO] that is co-indexed and agrees with the post-verbal DP which remains in *situ*, while in SI there is only a default agreement in the same construction;
- b. The participial clause in Fr can be analysed as a small clause;
- c. The agreement between the PtPPL and its DO is indeed instantiated locally, and must be captured through the relation between the two.

Let us consider these in turn. The first one is a possibility which at the present feels more like a stipulation and cannot be tested. We will not consider it here, and will leave the issue open.

The analysis of the participial clause as a small clause is what has been suggested for Latin (one possible modern version of the analysis proposed in 1982 by Vincent): the PtPPL is seen as an adjectival element that modifies the nominal it refers to, which is the internal argument of *habere*, i.e. its DO. The same structure cannot be applied to Fr, since here we find structures that could be analysed as small clauses, but they are different in form and meaning from the examples shown in (2). In these constructions, reported in (18), we have a perfect parallel with the Latin well-known example *habeo litteras scriptas* 'I am in possess of written letters', in which *habere* 'to have' retains its function and meaning as a main verb, and the DO precedes the PtPPL, which acts purely as an adjective:

- (18) E ai li sigaretis fumadis
 SCL have.PRES.1SG the.FPL cigarette.FPL smoke.PtPPL.FPL
 I possess cigarettes (already)smoked'

This sentence is clearly different in meaning from (19), where *vè* 'to have' is an auxiliary:

- (19) E ai fumadis li sigaretis
 SCL have.PRES.1SG smoke.PtPPL.FPL the.FPL cigarette.FPL
 I have smoked the cigarettes'

If we take syntactic structure to correspond to semantic information, we are led to conclude that sentences with different meanings will have different struc-

tures. Thus the participial constructions like (19) in Fr cannot be analysed as small clauses.

Finally, the third alternative seems to be in direct conflict with Chomsky (2000), where 'Agree' and 'Move' are logically dependent on one another. The Fr data suggest that agreement is instantiated locally between the PtPPL and its DO and it is based on a relation between these two elements without any need for movement. The difference between Fr and SI can be captured by invoking a different feature specification for the PtPPL. This would be supported by the diachronic change undergone by the PtPPL from Latin to Modern Romance (cf. Vincent 1982), which would appear not to have reached the same stage in Fr as it has in SI.

On the basis of the morphological evidence displayed by the PtPPL in Fr and on the diachronic evolution of the PtPPL, we claim that the PtPPL in Fr carries an inherent D feature. The term 'inherent feature' is not used here in its strictly canonical meaning, and it expresses the ability of the element that is specified for it to attract the morphological realisation (i.e. the value) that this feature expresses from a 'near' nominal source. Assuming that the PtPPL in Fr has retained some of the adjectival properties that its ancestral form had in Latin, and given that the DP DO agrees with the PtPPL without undergoing any apparent movement, there must be a local process that triggers agreement which is crucially dependent on the nature of the PtPPL. This could be achieved by making the theoretical claim that by virtue of having an inherent D feature the PtPPL is able to attract a bundle of features, for which it has a strong affinity. The result of this operation would be that its feature specification is set to the value of the feature it attracts.

The agreement process can then be broken down into three different components. First of all, we assume agreement to be a directional process, following the derivation-based theories. The nominal element, the DP internal argument, carries an inherent bundle of features, F1 with morphological content, and by virtue of the logical priority of its feature specification with respect to the target element it is able to 'set' the value for F1 to its own specification. This value is then matched by the target element. Secondly, the target element must have a 'compatible' feature specification, i.e. what has just been referred to as a 'strong affinity' for the features carried by the agreement source. Thirdly, the domain within which the agreement process takes place must be defined precisely to avoid over-generation. For this purpose, we make use of the notion of c-command.

The PtPPL is base-generated in V and carries an inherent D feature in Fr, but not in SI. This property of the D feature in the PtPPL attracts a copy of the

inherent features carried by the closest element it c-commands. The necessity for the requirement that the nominal source of agreement be c-commanded by the PtPPL stems from the fact that the PtPPL never agrees with its external argument. The c-commanding restriction accounts for all instances of PtPPL agreement in unaccusative, ergative and passive constructions, where the logical subject is base-generated post-verbally, as well as in transitive constructions. In SI, on the other hand, the PtPPL does not carry an inherent D feature. Nevertheless, since the PtPPL has been defined as a hybrid element, it carries both verbal and nominal features. The lack of the inherent D feature is reflected by the fact that the PtPPL in SI does not agree with its DP DO when this latter remains in its post-verbal position. The fact that it nevertheless has nominal features, allows it to enter an agreement relation with its DP DO through a [Spec, Head] configuration, i.e. when the DO undergoes movement. This accounts for all instances of PtPPL in SI, i.e. cliticisation, unaccusative, ergative and passive constructions. This [Spec, Head] configuration obtains in the Asp functional projection, which checks a set of features: aspectuality and φ-features.¹⁰

The following is the algorithm that formally expresses the process of PtPPL agreement:

- (20) Copy the features [φ] from x to y if and only if
 - either
 - i. x is inherently specified for [φ] and y has a strong D feature, and
 - ii. x is the closest node c-commanded by y,
 - or
 - iii. x and y have a 'compatible' features specification, and
 - iv. x and y are in a [Spec, Head] configuration.

The first set of conditions accounts for PtPPL agreement in Fr and the second for all other Romance languages. It is crucial to underline that 'compatible' features here is taken to mean that the value of the two features does not clash. Thus two elements will have compatible features if both carry positive values for that feature (in this specific instance, both the DO and the PtPPL are specified for [+N] features). On the other hand, if one carries a negative value and the other a positive one, they will not be compatible, which is the case for verbs. This predicts that if in a language the PtPPL is specified for verbal features only there will be no agreement possible, which is indeed what happens in Rumanian, Spanish and Portuguese.

The same process could be extended to DP internal agreement," so that a consistent analysis of agreement specified for [gender, number] features can be achieved.

On a more theoretical note, in the above algorithm, a necessary condition for the instantiation of agreement between two elements x and y is that y must c-command x. The notion of c-command, which can really be identified in this case with the notion of government, was indeed considered redundant and imperfect in Chomsky (2000) and eliminated from the system. The data supports the necessity to use this relation in order to capture the agreement relation between the PtPPL and its DP DO. Crucially, government is a necessary condition but not a sufficient one, which perfectly respects the well-grounded argument that agreement and government are two different phenomena, and as such must be kept separate (cf. Lehmann 1988; and Corbett 1983 among others).

5. One type of agreement?

The evidence from Fr has clearly shown that, empirically, AgrO cannot be justified. Can this claim be extended to AgrS, i.e. to subject-verb agreement, too?

Guasti and Rizzi (2002), investigating the production of negative sentences and (un)inflected do in English acquisition, convincingly argue for the need to maintain both Tense and Agreement as separate functional projections. A parallel conclusion is reached by Friedmann and Grodzinsky (2000) in their investigation of the production of tense and agreement in agrammatic aphasic patients: they find that their patients show deficit to tense but their production of agreement remains intact, clearly pointing to the fact that a split within inflection is obviously what they have in their mental structure.

The evidence brought forward by these two studies bears on core issues of syntactic theory, more specifically on whether agreement functional projections are empirically justified. We propose that the different feature specification between AgrS and AgrO is not just result of language idiosyncrasy, but it reflects a deeper distinction between two types of agreement. This idea finds some support from the different origin of the morphological realisation of [person] and [gender] features. Rigau (1991) suggests that the presence of [person] agreement features is directly linked to Nominative Case assignment, and Cardinaletti and Roberts (2003) propose to differentiate the functions performed by AgrS into two different Agr projections, one for Nominative Case assignment and one that provides the verb with morphological features. Agreement specified for [person] features does indeed seem to involve an agree-

ment functional projection, revealing its different nature. Agreement specified for [gender] features, on the other hand, obtains through a process of feature copying and does not require the existence of an Agr functional projection. Thus, 'agreement' is not a uniform phenomenon and cannot be subsumed under the same mechanism.

Conclusions

This article has put forward some problematic data, where agreement between a PtPPL and its DO occurs with no apparent movement. Through an investigation of the interaction of some adverbials, the positions occupied by the PtPPL and the agreement morphology appearing on it, we have reached the conclusion that PtPPL agreement is not dependent on the PtPPL raising into an Agr functional projection. As a result, this agreement has been analysed as a relation instantiated locally between the PtPPL and its internal argument, and formally expressed in terms of a feature matching process that targets suitably specified elements.

On a theoretical basis, we are still left with the question of what it means to have an agreement projection, of its semantic content and of its justifiability. Whether our argument is on the right track and agreement specified for [person] features is in actual fact different in nature from agreement specified for [gender] features, with the former maybe justifying the presence of a functional projection, or whether all types of agreement, irrespectively of their feature specification, should be subsumed under the same process, is really an open issue that needs further investigation, especially cross-linguistically.

Notes

1. Shlonsky (1989) even suggests that Agr itself should be split into its different feature components.
2. There has been extensive work in both traditional and generative grammar on auxiliary selection in Romance languages, and the choice of auxiliary has been linked to past participle agreement (cf., among others, Burzio 1986; Centineo 1996; Cocchi 1994). In the present paper we will only address the past participle agreement phenomenon, and not the question of auxiliary selection in Fr. For an introductory account on the latter, the reader is referred to Benincà and Vanelli (1984).
3. Like many other dialects spoken in Northern-Italy, Fr displays a set of subject clitics, which can co-occur with a lexical subject, a pronoun or a null pronoun in finite clauses.

These are indicated in the glosses as 'SCL'. No further information will be given in the present work about them. The reader is referred to Poletto (2000) for an exhaustive account of their nature and position in Northern Italian Dialects.

4. This is a simplification, given that relativised nominals do not trigger PtPPL agreement in SI in spite of having moved out of the VP. We will not address this issue here, but it may have to do with the Wh-features carried by the moved nominal.
 5. Here we will briefly put forward some arguments against such an analysis: for an exhaustive account, the reader is referred to Paoli (1997:29–49), in which a detailed investigation of an aspectual analysis of PtPPL agreement on the lines of Centineo (1996), implemented by Krifka (1989) and Tenny (1994), highlights several problems when applied to Fr.
 6. Giorgi and Pianesi (1991:194) claim that the PtPPL lacks a T1 of temporal reference – associated with the auxiliary –, but has a T2 expressing anteriority.
 7. This is by no means a universally accepted belief. Compare Williams (1994) and Iatridou (1990) for a different view.
 8. The PtPPL can appear after *bene* and *tutto* only when an intonational break is present before and after the relevant adverbial, which indicates extraposition of the adverbials. The same observation holds true for Fr.
 9. The question mark next to the Asp perfect indicates that it is unclear whether the projection should be related to Asp Perfect or Asp Imperfect. This does not affect the conclusions put forward here since that projection is higher than the one crucially involved in obligatory past participle raising.
10. We assume AspP to be a syncretic category, following Giorgi and Pianesi (1997).
11. It would be necessary to invoke Grimshaw's (1991) notion of 'extended projection': involving D and its complement NP.

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