

# IV Functional Projections

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# 15 Agreement Projections

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## 1 A Brief History of the Node Agr: Infl, Agr, and T

That clause structure cannot simply be reduced to a configuration involving one major ramification formalizing the subject–predicate relation is not a new idea in the field of generative grammar. It has been present since its beginnings in Chomsky’s (1957) *Syntactic Structures*, where a position is generated between the NP subject and the VP predicate to host modals, auxiliaries, and the (few) affixes constituting the paradigm of English verbal morphology. Although the independence (at some level of representation) of verbal morphology and the particular lexical choice of the verb of the clause soon became apparent, its formal and empirical role was obscured, in the 1960s and 1970s, by the common practice of representing clause structure as essentially consisting of the subject–predicate relation, as in the standard rewriting rule  $S \rightarrow NP VP$ . The more or less implicit assumption at the time was that languages displaying a special category of “modals” and “auxiliaries” should involve more formal structure mediating the relation. English<sup>1</sup> was considered a case in point, and nothing in particular was assumed in more general terms. It was only with the “Principles and Parameters” (P&P) approach that the assumption was generalized and taken to be a property of Universal Grammar (UG). The “modal” category of English makes something visible that is always present and may be left less visible (or even invisible) in other languages. With this more or less implicit assumption in mind, a more articulated clause structure was introduced in Chomsky’s (1981) *Lectures on Government and Binding*, where the subject–predicate relation is systematically mediated by a functional node labeled Infl(ection), assumed to contain the grammatical information normally associated with the verb such as, typically, tense, mood, and agreement features/affixes.<sup>2</sup> The more articulated clause structure which emerges, and which has been assumed in much work done in P&P terms, is schematized by the rewriting rule:  $S \rightarrow NP Infl VP$ .

One aspect of the format of UG which has been particularly developed within P&P is the X'-module. The leading idea is that phrase structure should not allow for any freedom in the general X'-schema, which thus serves as a rigid constraint. In particular, there should be no room for exocentric projections. Optimally, the clause should not constitute an exception to this general claim. The rule generating clause structure referred to above does not conform to the X'-schema. The idea naturally suggested itself, then, that the clause could also be taken to be an endocentric projection if the node Infl could be considered its head.<sup>3</sup> S can consequently be viewed as a regular maximal projection of I(nflection), the IP (Chomsky 1986b).

It was only in the late 1980s and early 1990s that the more precise nature of Infl became a much debated field of research on its own from at least two main points of view: a conceptual one and an empirical one. On the conceptual side, it appeared that a single head should not be allowed to contain several different sets of features, as was assumed for the Infl head. A head should rather correspond to one single morpheme; if it contains more, this should be the result of the head movement operation, yielding an incorporation configuration. On the empirical side, it appeared that some proposals in Emonds (1978) concerning the respective location of verb and negation could be developed in terms of the assumption of a verb movement operation, as in Emonds's original analysis, such that the differences between English and French in this respect could be interpreted in novel terms and given a straightforward account. These novel terms should imply a more articulated conception of clause structure, ultimately of the nature of the node Infl. Pollock's fundamental contribution in his influential 1989 article played a crucial role in this regard. Pollock's proposal, which has come to be known as the "Split-Infl hypothesis," had the interesting property of simultaneously meeting the conceptual desideratum and empirical adequacy.

The basic lines of Pollock's argument can be summarized as follows. Following Emonds's original proposal, the difference between English and French with respect to the position of the negation (*not* and *pas* respectively) and the lexical verb could be due to the fact that the verb moves out of the VP in French but not in English. Rather, in English an auxiliary (*do*) appears, filling the same position occupied by the lexical verb in French. The basic paradigm concerning the distribution of negation in finite clauses, reviewed in (1)–(4), is thus accounted for through the assumption described for verb movement:

- (1) Jean n'aime pas Marie.
- (2) \*John likes not Mary.
- (3) John does not like Mary.
- (4) \*Jean ne pas aime Marie.

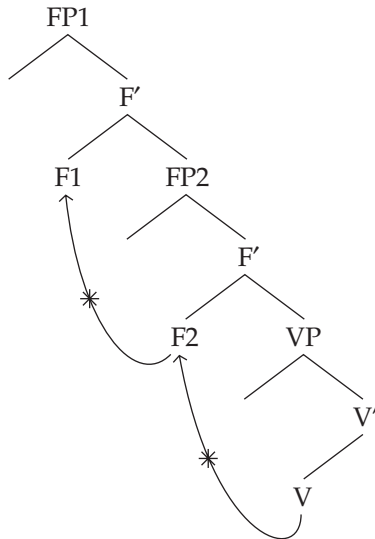
It is well known, however, that the situation is far more complex since, internally to French, the lexical verb appears to have a non-uniform behavior once non-finite clauses are taken into account. While it appears not to undergo movement when the negative adverb *pas* is considered, it does appear to move if other adverbs are considered. The adverb typically used to illustrate the point in this respect is the adverb *souvent*, which is allowed to follow the lexical verb in both finite and non-finite clauses. However, if compared to English, the situation appears to be contradictory, since in the latter language the lexical verb follows both the negation, as we have just seen, and an adverb like *often*. (5)–(15) illustrate the relevant paradigms:

- (5) Jean rencontre souvent Marie.
- (6) Jean essaye de souvent rencontrer Marie.
- (7) Jean essaye de rencontrer souvent Marie.
- (8) Jean essaye de ne pas rencontrer Marie.
- (9) \*Jean essaye de ne rencontrer pas Marie.
- (10) John often meets Mary.
- (11) \*John meets often Mary.
- (12) John tries to often meet Mary.
- (13) \*John tries to meet often Mary.
- (14) John tries not to meet Mary.
- (15) \*John tries to meet not Mary.

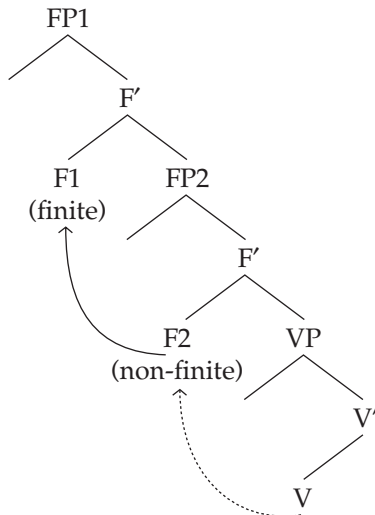
Putting aside in this context the question of the apparent optionality of movement of the verb in French infinitives which (6) and (7) illustrate, the crucial conflicting data in French concern the contrast between (7) and (9). While the infinitival lexical verb should be taken not to move if its position with respect to the negation *pas* is considered, it must be taken to move if its position is looked at with respect to the adverb *souvent*. The situation internal to English looks more coherent, since the lexical verb appears not to move with respect to both adverbial classes.<sup>4</sup> These contradictory data found a coherent explanation with Pollock's idea that there is more than one head inflectional position where the verb moves or does not move. If the assumption is made that there are (at least) two inflectional positions which can host the verb, a rational account becomes available. Assume that the position filled by the negation is higher in the clause structure than that filled by an adverb like

*souvent*. Assume further that the verb either can or must reach one of the two inflectional positions. The possibility of a complex paradigm becomes available and the English/French contrast receives the following interpretation:

- (16) a. **English:** Lexical verbs never move either to the higher or to the lower inflectional position. (Only modals and auxiliaries fill the higher inflectional head.)



- b. **French:** Lexical verbs obligatorily move to the higher inflectional position in finite clauses and optionally move to the lower inflectional position in non-finite clauses.<sup>5</sup>

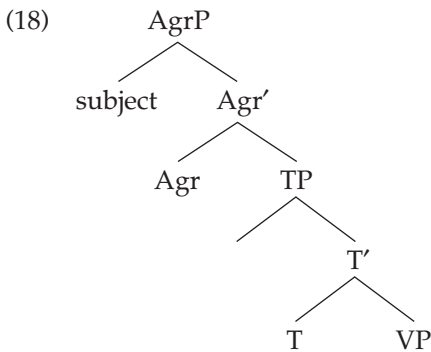


Assuming that the position filled by negation is immediately below the highest inflectional head available for the verb, and that the one filled by an adverb like *souvent* is immediately below the lowest one, the hypotheses in (16a, b) generate the articulated paradigm above, as can be computed, modulo obligatoriness vs. optionality of the movement.

The following questions arise: what is the nature of the two assumed inflectional heads? How can Infl be split? In Pollock's article the proposal was put forward that the crucial role should be played by the features which typically compose finite verbal morphology. In Romance these are typically features of Tense and Agreement, as the French and Italian example of the imperfect indicative clearly illustrates:<sup>6</sup>

- (17) Ils parl-ai-ent; parla-va-no  
 They-spoke-Imperf (they)-spoke-Imperf

The single node Infl should best be split into two separate nodes each corresponding to the set of Tense and Agreement features, respectively. Now, since the clause is considered an endocentric IP projection of I, it should now rather be seen as the projection of both Agreement and Tense, both interpreted as heads in X'-terms. The hypothesis as to which one of the two heads should be taken to be the highest in the structure, so that the clause should be the maximal projection of either one, has not been initially uniform.<sup>7</sup> It is now generally assumed that the clause should be interpreted as an AgrP maximal projection of Agr, the TP projection of T being the complement of Agr. In terms of the X'-schema, the basic structure which results is that in (18):



with the subject noun phrase filling the position of Spec/AgrP and the first lexical projection being the VP, complement of T.<sup>8</sup>

Movement of the verb to the highest functional head is then movement to Agr. What the relevant property of an Agr attracting the verb should be is not an easy question to answer. Various attempts have been made in the literature to formulate a notion of "strength" of Agr to be associated with an

“attracting” Agr, the most integrated one being that proposed in Chomsky (1995). Although the correlation between “overtness” of inflectional features and attracting property of Agr cannot be established in trivial terms, some crucial role must ultimately be played by it. See the discussion in Belletti (1990); see also Vikner (1997) for a more precise attempt to express the correlation.<sup>9</sup>

Thus, the first Agr projection proposed in the literature is the clause.

## 2 Agreement Heads in Finite Clauses: AgrS, AgrO . . .

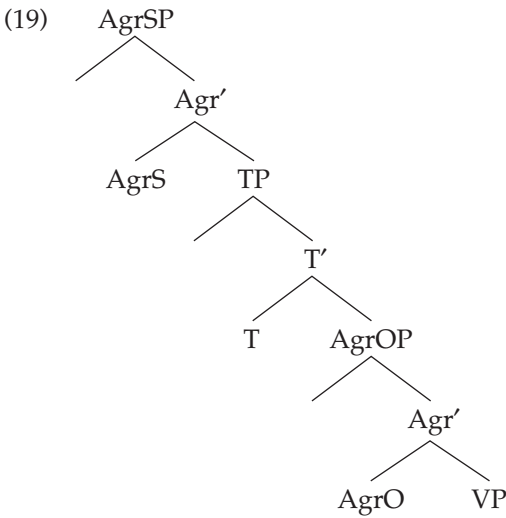
The grammatical features that are contained within Agr are those appearing on the verb entering the subject–verb agreement relation manifested in finite clauses.<sup>10</sup> According to the structure in (18), such an agreement relation does not hold between the subject and the verb directly but is rather mediated through the node Agr. Thus, properly speaking, the phenomenon of subject–verb agreement comes out as the result of two operations: the agreement relation between the subject in Spec/AgrP and the Agr head, plus the realization of the features of Agr on the verb.<sup>11</sup> The Spec–head relation is generally interpreted, both in P&P and within current minimalist assumptions, as a relation of “agreement” in the particular sense of a relation such that the element in Spec and the head share the same features.<sup>12</sup> Probably the most typical manifestation of this relation is the one holding between the subject and Agr, where the features involved are those of person and number, as far as finite verbal morphology is concerned.<sup>13</sup>

Another feature which is currently assumed to be involved in the subject–Agr relation is Case. Agr (or rather Agr+T) carries nominative in finite clauses.<sup>14</sup> Hence, the “agreement” relation directly established through the configuration with its Spec assigns/checks nominative with the subject noun phrase.

In Chomsky (1995b: chs 2, 3) the idea is generalized that the phi-feature Case is systematically checked within an “agreement” configuration involving the mediation of an Agr head. The fact that Case and “agreement” involving other phi-features (e.g. “gender”) often “go together” in languages with overt Case morphology provides plausibility to this general hypothesis.<sup>15</sup> However, its generality implies some major change in the conception of clause structure assumed thus far. The most important one is related to the checking procedure of accusative Case, the Case for the direct object in nominative–accusative languages. If an Agr head mediates Case checking under the “agreement” relation, another AgrP projection must be present in the clause to host Case checking for objects. To the extent that accusative is a property of the verb associated to its transitivity, the relevant Agr projection should be found around the VP area. This leads to the introduction of another Agr projection surrounding the VP. This “low” Agr projection is generally referred to as AgrOP, O = object, to distinguish it from the already known higher one, symmetrically referred to as AgrSP, S = subject. Notice that these abbreviations are just given for



convenience, since any Agr head is taken to be a collection of phi-features. A clause structure such as the one in (19) thus emerges (details aside):



Much as nominative Case is checked in Spec/AgrS of finite tensed clauses under the “agreement” relation, so accusative is checked in Spec/AgrO of clauses containing a transitive verb.<sup>16</sup>

As is easy to see, this geometry implies several consequences. Let us mention two important ones: (i) to the extent that the Case feature of a transitive verb is checked through head movement of the verb into AgrO, V must be assumed to move out of the VP in all languages, at least as far as AgrO; (ii) if accusative Case on the object is checked in Spec/AgrOP, this implies that objects should also move out of VP.<sup>17</sup> Both conclusions require important departures from current assumptions in P&P and also in early formulations of the “Split-Infl” hypothesis. As for the first implication, the hypothesis must combine with the supplementary assumption that Verb movement is either “covert” LF movement or does not go further than AgrO in those English-type languages where it has been assumed to remain in VP, following the by now traditional account of the French/English contrasts reviewed in section 1. As for the second implication, object movement to Spec/AgrO is necessarily “covert” LF movement in those English-type languages displaying (at most) “short” verb movement (to AgrO), while it can be overt in those French-Italian-type languages displaying “long” verb movement. This is so since the final (unmarked) word order of these VO languages is always VO and never OV: *Yesterday I met John*/\**Yesterday I John met*.<sup>18</sup>

With these considerations in mind, the proposal can be elaborated that (structural) Case checking is part of an “agreement” relation between a noun phrase

filling the Spec position and the relevant Agr head. This is the outline of some basic ideas which have led to the first Minimalist approach to Case theory.

Among the Romance languages, some display overt agreement in phi-features on the verb past participle in particular syntactic configurations. French and Italian are the best studied and most discussed cases.<sup>19</sup> Some representative occurrences of the phenomenon are illustrated in (20)–(27):

- (20) *Voici les chaises que j'ai repeintes.*  
Here are the chairs that I have repainted.
- (21) *Je les ai repeintes.*  
I them-Cl have repainted.
- (22) *Combien de chaises as-tu repeintes?*  
How many chairs have-you repainted?
- (23) *Les chaises ont été repeintes par moi tout seul.*  
The chairs have been repainted by me alone.
- (24) *Dans cet incident, les femmes sont mortes avant les hommes.*  
In this accident the women died before the men.
- (25) *Le ragazze sono arrivate alle 5.*  
The girls arrived at 5.
- (26) *Le sedie, le ho ridipinte io.*  
The chairs, I them-Cl have repainted myself.
- (27) *(Una volta) ridipinte le sedie, me ne andrò.*  
(Once) repainted the chairs, I will go.

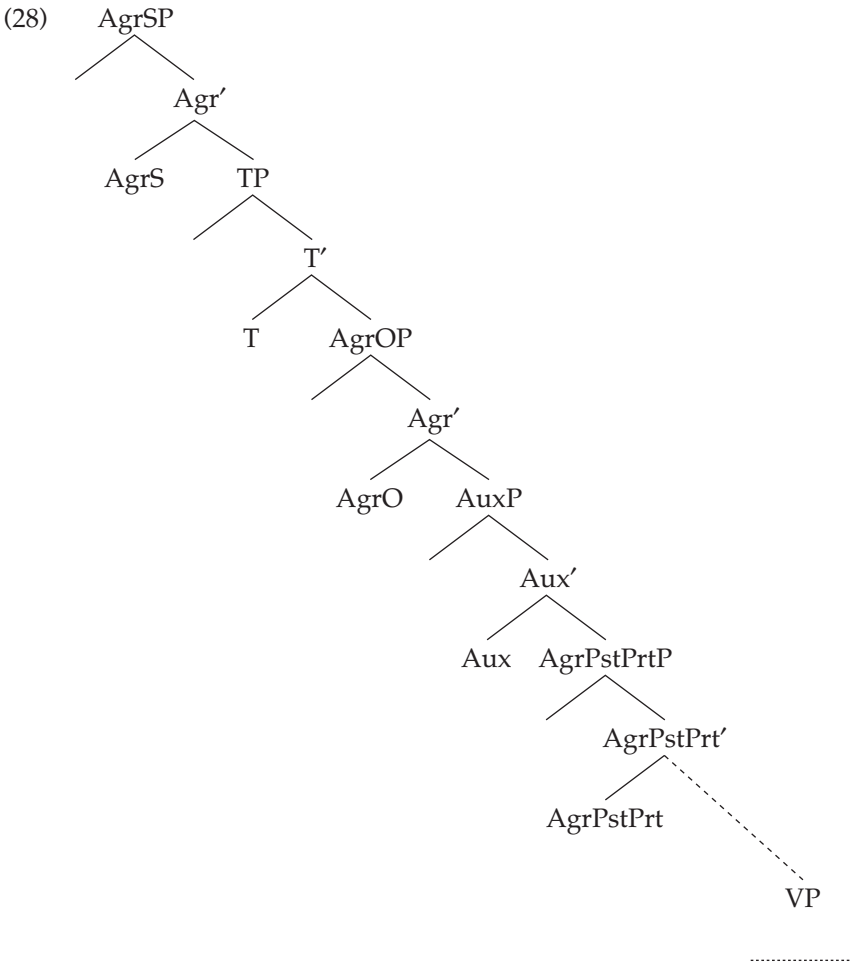
In Kayne (1989a) the proposal was put forward for the first time that the phi-features of gender and number appearing on the past participle should be considered the reflex of an established “agreement” relation between the past participle and the moved noun phrase or clitic. The natural assumption to make is that an Agr projection is among the functional projections which surround the past participle and that the moved constituent triggers agreement in its passing through its Spec.

According to this hypothesis a further Agr projection is present in the clause structure, which can be labelled AgrPstPrtP, for convenience. Although there was initially a certain amount of uncertainty over the question of whether the same Agr head should be considered responsible for both accusative Case checking and past participle agreement, the idea has become fairly wide spread that the two Agr heads should be distinguished and left separate, as they serve independent requirements.<sup>20</sup> Central in this connection are the observations, on the one side, that assignment/checking of accusative Case is completely independent of presence/absence of a past participial morphology, either overt

or covert and, on the other, that past participle agreement is activated independently of presence of accusative Case assignment/checking (cf. presence of past participle agreement with unaccusative past participles; lack of past participle agreement with transitive past participles whose object does not undergo cliticization).

Clause structure is thus enriched with at least three Agr-type projections: AgrS, AgrO, and AgrPstPrt. What all three Agr-heads have in common is the fact of carrying phi-features which undergo (morphological) checking with a noun phrase filling the Spec of the relevant Agr projection, in syntax or LF.<sup>21</sup>

Putting aside the questions related to the presence and the location of other functional categories and their projections in the clause structure, such as NegP, AspP, and ModP, the above conclusion leads to a structure like the following, where the presence of an AuxP is assumed to combine with that of the AgrPstPrt projection:<sup>22</sup>



### 3 On the Uniformity of Clausal Representation: Agreement Projections in Non-Finite Contexts

Characteristically, infinitival clauses do not manifest overt subject–verb agreement morphology. There are well-known “exceptions” to this claim, as the already mentioned case of the Portuguese inflected infinitive construction shows, but this is generally the case. Infinitival clauses do not typically manifest the same richness in phi-features on the verbal morphology as finite clauses do. To take a very simple and clear illustration, consider Italian, which has very rich verbal inflectional morphology in the finite paradigm, especially in the indicative paradigm illustrated in (29), and no overt expression of any phi-feature in the case of the infinitive, as (30) illustrates:

- (29) parl-o, parl-i, parl-a, parl-iamo, parl-ate, parl-ano  
(I, you-Sg, he/she, we, you-Pl, they) speak – first/second/third pers,  
Sg/Pl
- (30) Ho/hai/ha/abbiamo/avete/hanno deciso di [PRO parlare]  
(I, you-Sg, he/she, we, you-Pl, they) have – first/second/third pers,  
Sg/Pl

In (30) the PRO subject of the infinitival picks up the referential value of either first, or second, or third person singular/plural according to the choice for the controller in the matrix clause. There is, however, no sign of these differences in the infinitival morphology, which remains invariant. In general, non-finite verbal morphology is much poorer than finite verbal morphology. Considering Italian again, a correct generalization seems to be that non-finite verbal morphology either does not overtly express any phi-feature (infinitive (30), gerund (31)) or expresses “gender” and/or “number” (past participle (20)–(27), including the same situation in French, present participle (32)–(33)), but does not express the feature “person”:

- (31) Gianni/Maria stava mangiando.  
Gianni/Maria was eating.
- (32) In quella occasione Gianni/Maria era sorridente.  
On that occasion Gianni/Maria was smiling.
- (33) In quella occasione Gianni e Maria erano sorridenti.  
On that occasion Gianni and Maria were smiling.

What should be concluded from these factual observations? Should one conclude that the functional structure of non-finite clauses is radically different from that of finite clauses? Or should one rather conclude that overt morphological realization is “overt” indication of the existence of a given position

but that lack of overtly realized features does not necessarily imply lack of the corresponding syntactic position? The first alternative remains at a purely descriptive level. Now, most of the work in syntactic theory makes a fundamental use of abstract entities whose existence can only be indirectly motivated. A particularly revealing example in this connection is that of “trace” theory and more generally of the (phonetically) empty categories currently admitted in syntactic theorizing. Hence, there is of course nothing in principle wrong in assuming the existence of an entity even if it is not directly visible in a given particular structure. It can rather be assumed, as in the second alternative, that morphological “overtness” is only one criterion which justifies the assumption of a given functional projection, but far from the only one. This allows one to take the most economical track and assume that clause structure is uniform in both finite and non-finite contexts, in particular in both finite and infinitival clauses. Note that this assumption should be taken to hold both language internally and also across languages. We would otherwise be forced to reach the conclusion that languages which differ in the richness of overt verbal morphology should have radically different clause structures attributed to them; an assumption which is implicitly denied in most current work, as the currently assumed analysis of the differences between English and French with respect to the location of negation and other various adverb classes also clearly illustrates. It is an assumption which would furthermore be very costly from the point of view of language acquisition. It can rather be hypothesized that the child learning English and the child learning French start the acquisition process from the same structural skeleton:<sup>23</sup> on the basis of overt evidence they fill in structural positions which are available from UG and attribute the relevant properties to them (e.g. the capacity of attracting the verb). The alternative view would require that children “create” or “invent” positions on the basis of what they hear: it is hard to see what the constraining role of UG would be. Moreover, one should expect significant variation in terms of the functional positions identified, which does not seem to hold.<sup>24</sup> The issue is carefully discussed in Cinque (1999), where, despite the great richness in the kinds of overtly realized affix which different language types display, a substantial uniformity is identified.

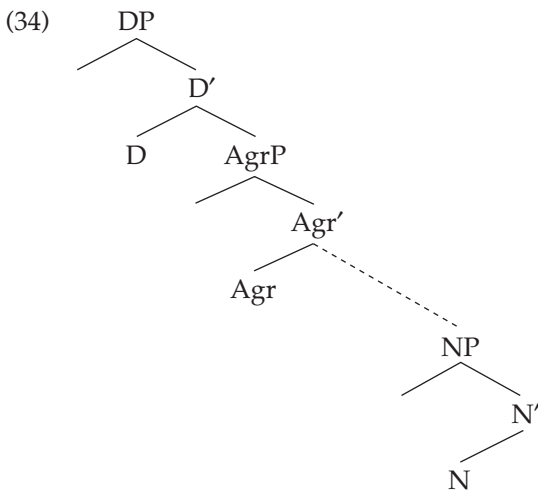
To the extent that finite and infinitival clauses have the same structural skeleton attributed to them, the same kinds of process can be taken to occur in both syntactic domains. Briefly consider Case in this respect. As far as accusative Case is concerned, the same checking procedure assumed for finite clauses involving a low AgrO projection can naturally be extended. No difference in the role of AgrO is to be expected. The uniformity hypothesis allows us to also extend the checking procedure for the Case of the subject, assuming a high AgrS projection. The Case will not be nominative, only available in clauses where AgrS combines with a finite T, but rather what Chomsky and Lasnik (1993) have called “null Case,” the Case only available in clauses where AgrS combines with non-finite T, i.e., infinitival clauses, and which is only compatible with the null element PRO.

## 4 Agr in Different Projections: Agr in DP, Agr in CP, Agr in “Small Clauses”

### 4.1 *Agr in DP*

Abney (1987) has developed the influential proposal that noun phrases should resemble clauses not only in their semantics, as is clearly visible in various instances of nominalization, but also in their structure. Much like clauses, noun phrases should be built around a functional support. In Abney’s original proposal, noun phrases are analyzed as DP-projections of the functional category D, the determiner, whose complement is the noun phrase proper, i.e., the projection of the lexical category N.<sup>25</sup> Much work has been done since Abney’s dissertation on trying to determine whether the functional structure of the noun phrase should not resemble clause structure even more in displaying a much richer functional architecture. It is not within the scope of the present discussion to review in detail the rich literature on the functional structure of the noun phrase.<sup>26</sup> Nevertheless, it seems appropriate to reconsider the issue from the particular perspective of the role of Agr projections.

The resemblance between clause structure and the structure of the noun phrase has been claimed to be stricter than in Abney’s original approach ever since the work by Szabolcsi (1994) in particular. On the basis of evidence from the Hungarian noun phrase, Szabolcsi has proposed that the functional structure of the noun phrase should be built upon an Agr projection of the same nature as the one found in clauses. More specifically, the original DP is assumed to rather correspond to the clausal CP level, external to the clause proper: much like C in the clause, the external D selects an AgrP type projection; more functional structure is then probably involved and the representation ultimately terminates in the NP. The structure which emerges is a representation along the lines in (34):



The two basic sets of facts motivating Szabolcsi's proposal find a natural account within the architecture in (34): first, extraction out of DP-phenomena which indicate the A'-status of the Spec/DP position are directly interpreted through the assimilation of the DP-layer to an "external" level of the same type as the CP-layer with respect to the clause; second, the agreement relation overtly established in the Hungarian noun phrase between the possessor and the noun, illustrated in (35), can be directly assimilated to the subject-verb agreement relation overtly established in many languages in finite clauses:<sup>27</sup>

- (35) a. ate ir-od  
       you-Nom write-2Sg  
       b. a te titk-od  
       the you-Nom secret-2Sg  
       your secret

As these brief remarks suggest, an AgrP can then correspond to either a clause or a noun phrase. What should make the difference between the two is whether other features are ultimately carried by Agr (through head incorporation). "Tense" is likely to be the relevant feature making the difference. An Agr combined with "tense" necessarily corresponds to a clause and is only compatible with selection by C. Lack of "tense" opens the possibility for Agr to be selected by D. In the first case a CP argument is obtained, in the second a DP.<sup>28</sup>

## 4.2 Agr in CP

There are languages where agreement phi-features are overtly realized in the complementizer. Various Germanic languages have this property to different extent and depending on the syntactic configuration involved.<sup>29</sup> A representative and well-studied case is West Flemish (Haegeman 1992). In West Flemish the finite declarative complementizer overtly agrees with the subject noun phrase, which in turn agrees with the inflected verb. To illustrate, consider the examples in (36) (Haegeman 1992: (6), (9), (49)), where the inflected verb form is given for the first and third person singular with a "strong" (pre-verbal) pronominal subject (36a, c, e, f) and with a "weak" (postverbal)<sup>30</sup> pronominal subject (34b, d, e, f) as well as with the declarative agreeing complementizer (36e, f):

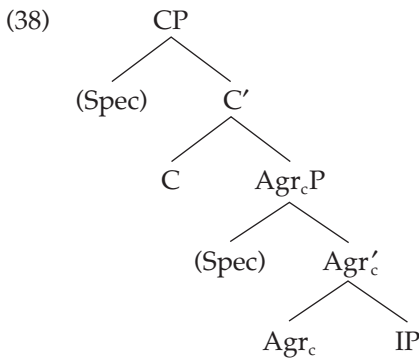
- (36) a. ik goan  
       b. goan-k (ik)  
           I go  
       c. zie goat  
       d. goa-se (zie)  
           she goes  
       e. Kpeinzen *dan-k* (ik) morgen goan  
           I think that-I (I) tomorrow go  
       f. Kpeinzen *da-se* (zie) morgen goat  
           I think that-she (she) tomorrow goes

The correspondence in inflectional ending between the complementizer and the inflected verb (cf. (36b, e) and (36d, f)) is currently interpreted as an indication that a head–head (of the complement) agreement process is operative between C and the Agr of the complement clause (Rizzi 1990, Haegeman 1992), as is informally schematized in (37) with a coindexing relation:

(37) ... C<sub>i</sub> ... Agr<sub>i</sub> ...

Since Agr carries the phi-features of the subject noun phrase in Spec/AgrP, the fact that the same features are also present in C is directly derived.

A slight alternative to this style of account is provided by the proposal in Shlonsky (1994a) whereby an autonomous AgrP projection (named Agr<sub>c</sub>P for convenience) is assumed to be present within the CP projection. This gives a CP structure along the lines in (38):



(The symbol IP is an abbreviation for the AgrP corresponding to the clause utilized, to avoid confusion.) This proposal has several implications concerning in particular the exact location of the subject (lexical, pronominal, doubled by a clitic or not). A close examination of the issues involved would take the discussion too far afield and will not be made here. It is worthwhile to just point out the conceptual advantage of an analysis of this sort, since it tries to reduce also this instance of agreement in phi-features to the presence of an Agr-type projection.<sup>31</sup>

Since an “agreement” relation is always automatically provided by the Spec–head configuration, the idea that a relation of this type is at work at the level of the CP-layer (possibly mediated by the presence of an AgrP projection, but see the discussion in n. 31) is very natural. This idea has been developed in detail in Rizzi (1990) through the proposal that an “agreement” relation in CP should be held responsible for typical rescuing strategies of long subject extraction cases across a complementizer which would otherwise yield an ECP violation. Representative cases are the strategies adopted by French, West Flemish, and English: in the first two languages the “agreement” relation is overtly signaled by a phonological change in the shape of the complementizer



(*que – qui; da – die*), and in the latter by the absence of an overt realization of the complementizer<sup>32</sup> itself. The relevant examples are given in (39)–(41) (from Rizzi 1990):

- (39) L’homme que je crois [t *qui*/\**que*[t viendra]]  
The man who I think that will come
- (40) Den vent da Pol peinst [t *die*/\**da*[t gekommen ist]]  
The man that Pol thinks that come is
- (41) Who do you think [t – /\*that [t left]]

In conclusion, languages seem to indicate that agreement is a relevant notion also at the level of CP. This holds both in the sense of overtly displaying phi-features on C, thus possibly indicating the presence of an Agr projection within the CP layer, and in the sense of giving rise to “agreement” relations playing a crucial role in the licensing of various complex syntactic processes such as the case of long *wh*-extraction.

### 4.3 Agr in “Small Clauses”

Take a language like Italian, which has a fairly rich inflectional morphology. Consider then adjectival and past participial small clauses in this language in examples such as (43) and (44):

- (42) Ritenevo [Maria adatta/\*o a questo incarico]  
I considered Maria adequate for this task
- (43) Le ragazze [entrato/\*o per ultime] si presentino in portineria  
The girls entered-FemPl/\*MascSg = Unmarked form the last must present to the reception
- (44) [Arrivato/\*o Maria], Gianni uscì dalla stanza  
Arrived-FemSg/\*MascSg = Unmarked form Maria, Gianni went out of the room

The brackets in (42)–(44) are left without a label on purpose, since the much debated question of the precise determination of the internal structure of small clauses will not be addressed in detail here.<sup>33</sup> Yet, the simple observation of the examples in (42)–(44), combined with the assumption that overt manifestation of phi-features implies the presence of an Agr projection, clearly suggests that these small clauses should imply enough functional structure to include one (or more) Agr projection(s). This is precisely the conclusion reached in various works dealing with the analysis of the structures in (43)–(44) (Belletti 1990, 1994, Siloni 1997, Sportiche 1995, Kayne 1989a, and Starke 1995, among

others). What all these analyses have in common is the idea that “small clauses” cannot be so “small” as to only contain the projection of the lexical category which categorially defines them (A, V, in these cases), as originally proposed in Stowell (1983). Generalizing this observation to all kinds of small clause, various authors have reached the conclusion that small clauses actually contain the same structure as full clauses up to the CP level. The difference with full clauses would consist in a somewhat impoverished character/realization of the various functional heads involved.<sup>34</sup> As for Agr projections then, the null assumption in this perspective is that all those assumed for clauses are also present in small clauses (AgrS, AgrO, AgrPstPrt . . .). Furthermore, all those Agr projections assumed within the internal structure of other lexical categories (N, A . . .) should be present in small clauses as well.

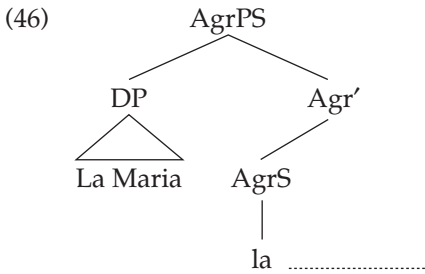
## 5 Agr and Clitics

To the extent that Agr is a container of phi-features of “gender,” “number,” “person,” and “Case,” an implicit strong parallelism between Agr and personal pronouns is drawn. Personal pronouns can be analyzed as a collection of grammatical features typically corresponding to “gender,” “number,” “person,” “Case,” etc. Even in languages with a relatively poor inflectional morphology, these features are often overtly manifested precisely in the pronominal paradigm. The English case is especially revealing in this respect. The features “number,” “person,” “Case,” and, for the third person singular, also “gender” are overtly expressed in the paradigm of personal pronouns only: *I/me/we/us, he/him/she/her/it/they/them*. The (quasi-)correspondence between Agr and personal pronouns is even more explicit in the Romance languages, which, next to the stressed so-called “strong” forms of pronouns, also have an unstressed paradigm of clitic pronouns. Much like Agr, clitic pronouns are properly analyzed as “heads” in  $X'$ -theoretic terms ( $X^0$ ), since they combine with a word (the verb), which is in turn a head (or a derived combination of heads, including functional ones). Note that this holds even if the proper analysis of clitics should be such that they are considered “phonological” clitics which head a maximal projection (XP) at the “syntactic” level and, at this level, behave as maximal projections. Indeed, this seems to be the appropriate analysis of French subject clitics (Kayne 1991, Rizzi and Roberts 1989), to mention a well-known example. Also remaining at the syntactic level, the behavior of clitics can turn out to be non-uniform. To the extent that they undergo syntactic movement, they can do so partly as a maximal projection and partly as a head (Belletti forthcoming). The relation between clitics and Agr is then “substantial” as for the kinds of feature that both express, and goes further, as Agr and clitics are both heads in the sense of  $X'$ -theory.

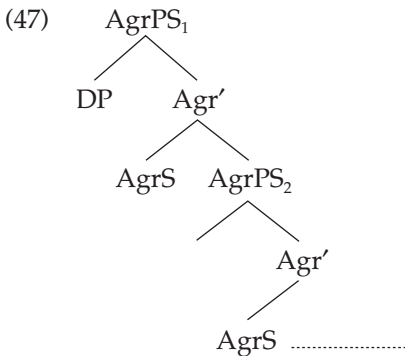
This kind of correspondence between Agr and clitics has inspired much recent work on clitics and the proper analysis of cliticization.<sup>35</sup> Take the case of subject clitics present in most of the dialects of northern Italy. A fairly current

analysis interprets them as a direct manifestation of the AgrS node. The lexical subject, possibly present in the same clause together with the subject clitic, is located in the Specifier of the projection of AgrS containing the clitic. Thus, the relevant part of the representation of a sentence like (45), which constitutes a typical instance of a clause containing a lexical subject and a “doubling” subject clitic in northern Italian dialects (e.g. the dialects spoken in Florence, Trento (Brandi and Cordin 1989), Padova, and other northern areas (Poletto 1993a); see also the case of Franco-Provençal (Roberts 1993a)), will correspond to (46):

(45) La Maria la parla  
 (the) Mary she-Cl talks



An analysis along the lines of (46) almost inevitably combines with the idea that more than one AgrS projection should be present in the clause. Two AgrS projections should at least be hypothesized to make room for the subject clitic and the (moved) inflected verb. An idea of this sort, explicitly spelled out in Cardinaletti and Roberts (1991) and Belletti (1994), assumes that the upper part of the clause contains more structure at the AgrS level, as illustrated in (47):



where the upper AgrS hosts the subject clitic and the lower the inflected verb.<sup>36</sup>

Third person object clitics are usually analyzed as belonging to the category D (see the references cited in this section). This assumption is based on the homophony between definite articles and third person clitic pronouns, historically due to the development of both clitics and definite articles from the same

Latin source.<sup>37</sup> Yet a relation with an Agr head is supposed to be established in this case as well. For many analyses the need for the clitic to be related to an Agr head/projection in order to undergo checking of various phi- and Case features is the essence of cliticization. The need for the relation with Agr is given as the fundamental explanation for the question as to why object clitics appear in a displaced position, different from the one where they would belong in the clause. Different solutions have then been proposed as to the exact landing site of the clitic.<sup>38</sup> To the extent that pronominal clitics are generally clitics on the inflected verb, AgrS should ultimately be involved, as the verb systematically ends up in this position in finite clauses (but see nn. 35, 38): *la conosco; l'ho conosciuta* . . . AgrPstPrt is also involved, as the phenomenon of past participle agreement briefly reviewed in (20)–(27) above reveals (thus suggesting movement of the clitic as a maximal projection through the Spec of the AgrPstPrt projection). AgrOP is involved as well, as the clitic must pass through this position on its way to the final landing site. It could also be actively involved if Case checking is one, or even the, factor triggering the displacement of the clitic.<sup>39</sup>

The relation between Agr projections and clitics is thus very strict. Given the identity of the kinds of feature that both Agr and clitic pronouns express, as well as their status as heads, it can go as far as to allow for an assimilation of the two, as in the case of subject clitics of the kind found in the northern Italian dialects. Alternatively, the relation holds in subtler terms in that an Agr head/projection constitutes the designated landing site for the clitic, as in the case of object clitics.

## 6 The Acquisition of Agr

During the last decade or so, much work has been devoted to the issue of the acquisition of the clausal functional structure.<sup>40</sup> A detailed review of the rich debate which has developed would go well beyond the aims of this work. Nevertheless, some considerations more directly related to the acquisition of Agr seem appropriate.

The empirical area most directly related to this issue and which has received much attention in the field is probably the one which identifies a stage common to the acquisition of several languages, known as the *Optional Infinitive (OI)* (Wexler 1994) or *Root Infinitive (RI)* (Rizzi 1994) stage. The stage is characterized by the fact that children make extensive use of the infinitival form of the verb in root clauses, which typically only allow for finite verbal forms in the adult language. Other properties coexist with the use of root infinitives in this same stage, such as the possibility of null subjects in cases where the target adult language is not a null subject language, or the use of (non-nominative) “default” Case marked subjects of root clauses where the verb is in the infinitival form.<sup>41</sup> (48) illustrates the phenomenon of root infinitives and the co-occurring properties just mentioned:

- (48) a. Voiture partir (Friedeman 1992)  
 b. Pas laisser tout nu (Friedeman 1992)  
 c. – Want more (Hyams 1986)  
 d. – Boit café (Pierce 1989)  
 e. Him cry/His cry (Schutze 1997)<sup>42</sup>

One interpretation of the attested possibility of using the infinitival form of the verb in root clauses in this particular stage of child language, known as the “truncation hypothesis” (Rizzi 1994), relates it to the possibility assumed to be available for children of utilizing only portions of the clause structure in root clauses. In particular, the CP-level projection is not necessarily reached, as is always the case for adults.<sup>43</sup> Maturation would consist in eliminating this possibility, thus consequently requiring the obligatory projection of the whole CP. To the extent that root clauses can be truncated at different levels of projection at this stage, the highest AgrS node is the most likely one to be involved in the truncation process. Truncation below AgrS has consequences for all processes which are assumed to involve the AgrS projection in one way or other. The most visible consequence should precisely be lack of appearance of phi-agreement features on the verb of the clause, with use of the infinitive becoming possible in root clauses. The other coexisting phenomena could be related to lack of the AgrS projection in various ways and more or less directly. In a nutshell: a “null constant” rather than a *pro* could be responsible for the “apparent” possibility of null subjects, which are then expected to display behaviors different from those of (“adult”) null subject languages necessarily involving *pro* (see the discussion in Rizzi 1994, *contra* Hyams 1986); to the extent that nominative is associated with agreement, the expectation is that lack of agreement should induce lack of nominative Case on a lexical (pronominal) subject.<sup>44</sup>

The leading idea of an account of this sort is that the functional structure of the clause is available to the child from the very outset of the acquisition period. Unlike the adult, the child can make use of a reduced portion of it (“truncation” below Agr in Rizzi’s 1994 terms) or leave features corresponding to some of the functional heads involved partly unspecified (“tense” in Wexler’s 1994 terms; see n. 44).<sup>45</sup> This differs from Radford’s (1990) original proposal that no functional structure be available at all for the child at the outset, and significantly limits the enrichment brought about by maturation. This also allows for a natural account of the crucial observed fact that features clearly associated with functional categories are known to the child from the outset, such as the finite/non-finite distinction (Pierce 1989, Guasti 1992). Also important in this respect is the observation that the verbal inflectional agreement endings appear to be known from the outset by children acquiring Italian, as the very low percentage of agreement mistakes during early stages of acquisition reveals (Guasti 1992). The latter observation also directly indicates that both Agr and the morphosyntactic agreement process are known from the early stages.<sup>46</sup>

In conclusion, the acquisition of Agr (and the shapes it takes) appears to play quite a central role in language acquisition, and it reveals potentially rich consequences for the implementation of clause structure in early stages.

## **Appendix: Some Observations on Agr and Interpretability**

Throughout this chapter I have been assuming a conception of clause structure which has become “standard” since Pollock’s (1989) article and the numerous works produced since in the same line. As the above discussion has made clear, the rich literature which has grown around the so-called “Split Infl” hypothesis assumes that a central role is played by Agr nodes and projections in clause structure. Agr and Agr projections have also been taken to play a role internal to the projection of categories like CP and DP, as well as various “small clause” types. I have also stressed the relation between Agr and cliticization, specially in Romance, as well as the potentially crucial role played by Agr and its projection in defining particular stages of language acquisition. The central role played by Agr and Agr projections has been recently put into question by Chomsky (1995b). Before concluding the present discussion I would like to make some observations in this connection, although Chomsky’s proposal is hard to evaluate since it is still at a fairly sketchy level of elaboration.

In the last part of his “Minimalist Program” Chomsky (1995b) has put forward the innovating hypothesis that nodes of the Agr type should not be present in the clause structure to mark individual syntactic positions; a proposal with pervasive consequences. The hypothesis is based on the distinction made in that system between [+interpretable] and [–interpretable] features, which is supposed to play a central role in the syntactic computation to drive the transition into the interpretive LF component. The phi-features contained in Agr are considered [–interpretable] since they simply express a morphosyntactic relation (an “agreement” relation). They are thus erased once the checking operation with the phi-features of a DP in Spec/Agr is completed. They do not play any role in LF, unlike the nominal phi-features, which are treated as [+interpretable] as they directly determine crucial aspects of the interpretation of DPs.<sup>47</sup> According to Chomsky’s proposal [–interpretable] phi-features of the Agr type should not justify a particular syntactic position, as they are not present in LF. They are consequently assumed to be directly part of the composition of other categories (T for AgrS and V for AgrO). A proposal along these lines necessarily requires a corollary hypothesis: the possibility of allowing multiple Spec positions for single projections. This is so since, in the absence of Agr projections, all Spec/Agr positions are also eliminated from clause structure. Consequently, in order for checking of Agr phi-features to be performed, a further Spec position must be created for the category whose head contains those features, beside the one that comes directly from the X’-schema.

The possibility of multiple Spec positions, which amounts to allowing multiple adjunction structures as in previous versions of syntactic theory, may very well be going in the right direction. However, it is clear that its innovating potential will really be such if the hypothesis turns out to be able to make the right predictions in different empirical areas<sup>48</sup> and to derive the results obtained within the traditional, more constrained X'-format, which only allows for one Spec position per head (although necessarily in different terms).<sup>49</sup> Among these results are those reviewed in this chapter where different Agr projections have been taken to play a central role in expressing (overt) morphosyntactic relations, which condition the syntactic computation, and in revealing the presence of individual syntactic positions.

## NOTES

- 1 More generally the Germanic languages, although the comparative approach was less developed at the time than it became in the 1980s and 1990s.
- 2 The important work by Baker (1988) in the late 1980s on agglutinative languages showed that much more grammatical information can actually be associated with the verb, as these languages overtly manifest. Hence, the assumption must be that the Infl node should have room for even more features/affixes than those mentioned above, characteristically found in more familiar languages. I will abstract away from these considerations. See also n. 6.
- 3 Arguments showing the head-like behavior of I(nfl) and its autonomy can be provided to empirically support the theory internal conceptual argument. The arguments are based on the observation that I is selected by particular complementizers (C being a head as well), selection being a typical head-head relation.
- 4 Of course these considerations assume that adverbs have a fixed position in the clause and do not undergo special ad-hoc reordering movements. The only movement operations that adverbs can undergo are the general ones possibly involving any major constituent: *wh*-movement, focus movement, etc. This assumption appears to be the most restrictive one and it has allowed important progresses in such a recalcitrant area. Since the position of adverbs appears to vary significantly across languages, according to this view the site of the variation should rather be recognized in verb syntax, ultimately a morphological property, than in adverb syntax proper. See Cinque (1999) for a most articulated development of this idea, combined with the proposal that the fixed position of adverbs is the Spec of the different functional heads which build up clause structure.
- 5 Auxiliaries are allowed to move higher in French non-finite clauses, thus reproducing the situation of English, modulo the optionality of movement.
- 6 In many subsequent works (Pollock 1997, Cinque 1999, to quote some



- representative cases) it is argued that the nature of Infl is certainly more articulated than that and other kinds of feature intervene to compose it. "Mode", "Aspect," and "Voice" features are the cases most frequently quoted, also on the basis of crosslinguistic evidence.
- 7 With Pollock (1989) assuming T to be the highest head, hence the clause a TP on the one side, and with Belletti (1990) and Chomsky (1995b: ch. 3) assuming Agr to be the highest head, hence the clause an AgrP.
  - 8 The French/English paradigms are then accounted for through the assumption that the verb (lexical or auxiliary) obligatorily moves to Agr and optionally moves to T in French finite and non-finite clauses respectively; in English, the lexical verb remains in VP. Auxiliaries, on the other hand, move to Agr obligatorily in English finite clauses and optionally in both English and French non-finite clauses (cfr. *John has not come/does not come // John claims not to have come/to have not come // Jean dit ne pas avoir parlé/ n'avoir pas parlé*).
  - 9 According to which an attracting Agr should express the feature "person" in all tenses.
  - 10 And some non-finite clauses as in the Portuguese inflected infinitive construction, where the inflected infinitive carries the person and number features of the subject (a possibility arising under particular structural conditions and for particular lexical choices; see Raposo 1987).
  - 11 Either through actual incorporation *à la Baker* (1988) of V into Agr in syntax, or directly in the lexicon, with the features to be subjected to morphological checking, in syntax or LF (Chomsky 1995b). Morphological checking is an operation where the particular features choice made in the lexicon is checked against the actual structure. Matching features are supposed to "erase" after successful checking, which is undertaken through head movement. The Spec-head relation within an X'-maximal projection is the other checking configuration.
  - 12 I will use the notation "agreement" to refer to this type of relation, which is provided by the structural Spec-head configuration and does not necessarily involve the mediation of an Agr node. It does when phi-features are involved. The set of phi-features contains (at least) features such as number, person, gender, and Case.
  - 13 It is not conceivable that Agr itself be considered as an abbreviation for different contentive heads, such as "number" and "person" (and possibly "gender," a feature typically showing up in non-finite, participial verbal morphology in Romance and which, characteristically, is in complementary distribution with the feature "person"). See Shlonsky (1989) for the sketching of a "Split Agr" hypothesis.
  - 14 Simplifying somewhat, since it is not only T of finite clauses which implies a nominative feature on Agr. Other occurrences of nominative Case in different contexts, such as the Hungarian noun phrase and the inflected infinitive of Portuguese already mentioned, suggest that T is not the only trigger of nominative. Possibly, the feature necessary for nominative to be available is the feature "person," which typically goes with "finiteness," but not necessarily, as in the case of the Portuguese inflected infinitive and the Hungarian possessor in noun



phrases. See below. Also relevant in this respect is the case of Icelandic, where nominative Case appears in non-finite clauses marking what appears to be an object noun phrase (Taraldsen 1995, and the overview in Schutze 1997). For the sake of clarity I continue to assume the simplified hypothesis if not otherwise specified.

- 15 Which is assumed for so-called Structural Cases: nominative, accusative, possibly some instances of genitive (see below), the “null” Case of infinitivals.

The role played by Case in agreement relations is visible in various situations in different languages. To quote one typical example, take German, where the article, typical carrier of agreeing phi-features in the noun phrase, is also the carrier of Case.

- 16 It is sometimes said that AgrO is “activated” by the Case feature contained in the lexical information of a transitive verb. This sort of “activation” can be interpreted as the result of the checking operation involving head movement of the verb into AgrO.
- 17 Not just subjects as in the so-called “VP-internal subject hypothesis” (Kuroda 1988, Koopman and Sportiche 1991, among others).
- 18 Note that it is no trivial task to compute what the different implications would be in the case of French/Italian type languages, where long Verb movement would anyway obscure the effects of “overt” syntactic movement of the object to Spec/AgrO.

For the first proposal that a certain “amount” of Verb movement should be available also in English, see Johnson (1991). For more recent discussion of these and related issues touching on the phenomenon

of “Object Shift” arising in Scandinavian languages, see Vikner (1995) and Collins and Thráinsson (1996), among others.

- 19 See in particular Kayne (1989a), Belletti and Rizzi (1996), Belletti (1990), and Friedeman and Siloni (1997).
- 20 See Friedeman and Siloni (1997) for a useful clarification of the issue and the development of empirical and conceptual arguments showing the necessity of the distinction. Possibly, the initial incertitude arose from a “historical” accident: almost simultaneous appearance of Kayne’s arguments showing the “existence” of an Agr head/projection in the low VP area, made visible by past participle agreement, and of Chomsky’s Minimalist approach to Case checking requiring an Agr head/projection again in the low VP area, and which made direct use of Kayne’s arguments.
- 21 We might notice that whereas nominative Case and other phi-features are checked within the same AgrS projection, two different Agr projections are involved for checking of accusative Case and other phi-features (such as gender and number, which may be overtly realized in the Romance past participle). Possibly, this often assumed asymmetry reveals that some generalization is missed. A promising idea would consist in claiming that no such asymmetry actually holds and that Case and other phi-features are also checked independently in the “upper” part of the clause. This would imply that more than just one AgrS type projection is present there as well. The proposal that more than one “high” AgrS type projection devoted to host a noun phrase subject in its Spec (either as the final landing site

- or as a position where the noun phrase passes through on its way to the final landing site) should be assumed to be present is more or less explicitly adopted by several authors. See Belletti (1994) for the adoption of the proposal at least in structures containing an aspectual auxiliary in Romance, also supported by data from north-eastern Italian dialects studied in Poletto (1993a); see too Cardinaletti and Roberts (1991) and Rizzi (1987) for a first hint of a similar idea. Most recently, see Cinque's (1999) typology of clause structure, which includes several so-called DP-related positions, also in the higher part of the clause, which we might assimilate to the Specs of Agr projections. For the proposal that Spec/TP too is a possible subject position, at least in those Germanic languages displaying overt Object Shift and the so-called "Transitive Expletive Construction" (TEC), see Bobaljik and Jonas (1996).
- 22 The null assumption seems to be that all the positions overtly present in some structures are actually always present in all structures. This naturally leads to the proposal that the structure below AgrO is present independently of the actual realization of a compound tense, overtly involving an Aux and a past participle.
- Some further functional head is certainly present in the low part of the clause, between the AgrPstPrt projection and the VP, as the vertical dots in (28) are meant to indicate. In Belletti (1990, 1994) I proposed that an Aspectual phrase is located in this position. On the basis of the rich typological survey undertaken, Cinque (1999) assumes that several aspectual projections are present in this low area, together with the projection of a functional "Voice" head, which also belongs to the low zone. I disregard here, as I did for the upper part of the clause, the numerous issues related to an exhaustive structural representation of this area, which might include at least other NegP projections (Cinque 1999, Zanuttini 1997), a FocP projection (Belletti and Shlonsky 1995) and others.
- 23 Or else the skeleton "matures" in different stages. See in this connection the literature on the so-called root/optional infinitives stage (Rizzi 1994, Wexler 1994, and references there). See also section 6 below.
- 24 Of course this argument is not limited to Agr type functional categories, but extends to all categories constituting the functional structure of the clause.
- 25 See Grimshaw (1991) for the proposal that DP be viewed as an "extended projection" of N much as IP, and that the projections in which it can be split can be viewed as "extended projections" of V.
- 26 See, among others, Giusti (1993a, 1997) Cinque (1995), Longobardi (1994), Ritter (1991), Szabolcsi (1994), and Siloni (1997).
- 27 (35) also illustrates the well-known fact that the possessor not only agrees with the noun in the same form as in the subject-verb agreement relation, but carries nominative Case as well. This kind of fact, hinted at in n. 14, makes it tempting to suggest that the feature relevant in the availability of nominative Case be the feature "person," typically present in the finite verbal morphology, in the Portuguese inflected infinitive, and, it seems plausible to argue, also in the possessor pronoun. This feature should be considered a necessary

but not a sufficient condition for nominative to be available. Concomitant presence of a “verbal” type agreement morphology containing the feature “person” possibly plays a role. If, as is more often the case, a morphology of this kind is not compatible with a nominal base, the Case most typically checked in the noun phrase is not nominative (typically, it is genitive). See Siloni (1997) for an analysis of Hebrew construct and “free state” in this connection.

- 28 Where only CPs and DPs are possible arguments (Stowell 1989b, Longobardi 1994, Szabolcsi 1994).

The claim that D is the necessary selector of an Agr without “tense” is probably too strong a conclusion, incompatible with the plausible and empirically supported idea that “small clauses” are/can be introduced by C (Starke 1995, Sportiche 1995). On the other hand, the idea that D is the possible selector of an Agr without “tense” makes available a treatment of nominalization such as the one developed in Siloni (1997), named “syntactic nominalization,” whereby VP can terminate a DP-extended projection without any violation being created. This is the analysis attributed to reduced relatives and (some) gerunds by Siloni (1997).

Note that the correlation between C and T is an often observed one. See Stowell (1982) and Rizzi (1997), among others.

- 29 See Bayer (1984) on German, Zwart (1993b) on Dutch, and Bennis and Haegeman (1994) and Haegeman (1992), in particular, on West Flemish.
- 30 Notice that the weak pronominal subject can be doubled by the strong form, as the parentheses are meant to indicate.

- 31 The phi-features in Agr<sub>C</sub>, corresponding to those of the subject, must end up on C, through some version of a head movement operation. Note that this operation is somewhat special since it adjoins the features on Agr to the right of the landing site head C. Usually, head incorporation yields the opposite order, with the incorporating head adjoining to the left of the landing site head. This might indicate that the hypothesis in (36) is a first approximation, but probably more needs to be assumed to derive the correct result. An articulated structure for the CP layer involving more than one C position, such as the one proposed in Rizzi (1997), enriched with an AgrP projection could indicate a possible innovative approach.

- 32 According to Rizzi’s analysis, the so called “agreeing” complementizer of English is phonologically null. “That” and other overt complementizers do not have the relevant “agreeing” property.

Note that the phonological change in the shape of the complementizer in French and West Flemish does not involve realization of typical agreeing phi-features (see Zwart 1993b). This might suggest that even if an AgrP projection is present within the CP layer, it is not involved in the establishment of the relevant relation. Within an articulated conception of the CP internal structure this might be taken as an indication that the “agreement” relation responsible for satisfaction of the head government requirement of the subject trace is established at a level lower than the AgrP projection, and hence does not involve phi-features.

In Rizzi (1990) it is assumed that languages which (differently from

- French and, overtly, West Flemish; see (35)) do not require that C agrees with the Agr head of the clausal AgrP are expected to exist, and to show variation in the shape of the complementizer also in cases of extraction of constituents different from the subject. The languages which are brought as possible illustrations of this case are Irish (from Chung and McCloskey 1987) and Kinande (from Schneider-Zioga 1987).
- 33 See the papers collected in Cardinaletti and Guasti (1995) for an overview of the several issues raised by small clauses in this respect.
- 34 See in particular the analyses in Starke (1995), Sportiche (1995), and Belletti (1994). See also Cinque (1990a) for the first suggestion that absolute participial small clauses should contain a CP level. If one assumes Rizzi's (1994) idea that clause structure can be truncated (as in some stages of acquisition) in the upper part but cannot be internally reduced, detection of a CP level implies that a whole clause structure is present (as is specifically discussed in Belletti 1994). See also Belletti (in preparation) for the detection of a CP level in some reduced comparative expressions.
- 35 The most studied cases involve the analysis of Romance clitics (Kayne 1991, Belletti forthcoming, Uriagereka 1995), but also Semitic clitics and Germanic so-called "weak pronouns" have been analyzed from the perspective discussed in the text (Shlonsky 1994b, Siloni 1997, Holmberg 1991a, Haegeman 1993a; see also Sportiche 1996).
- 36 Given the argument spelled out in section 3 above, the richer structure should be assumed to be present independently of the presence/
- existence of subject clitics in the language. This immediately gives a more articulated conception of the notion of (pre-verbal) "subject position". See Rizzi (1987) for the first proposal that the unanalyzed Infl node should be split into two nodes, at least in the dialects overtly revealing it, and Poletto (1993b) for the idea that Agr projections should also be assumed at the level of CP to host the special paradigm of interrogative subject clitics overtly present in some dialects.
- 37 The natural assumption in this perspective is that the DP corresponding to first and second person clitic pronouns, which are not homophonous with any article, also contain an Agr projection hosting the relevant first and second person, singular/plural features. Accordingly, the third person should be taken to correspond to the default value for Agr.
- 38 Which can also vary across Romance; see Bianchi and Figureido Silva (1994) on the possibility of Brazilian clitics cliticizing on the past participle of finite clauses, and Rouveret (1989) for the analysis of cliticization in continental Portuguese, where clitics can appear higher in the structure than in the other Romance languages. However, the property of being verbal clitics is shared by Romance pronominal clitics in general.
- 39 I am using the movement metaphor although, possibly, the analysis could also be phrased in non-movement terms (as in the original non-movement approach of Borer 1984, even though it is not obvious how a non-movement approach could deal with the past participle agreement facts). See Belletti (forthcoming) for the idea that the AgrO projection is necessarily

- involved, as Case checking is the primary factor triggering clitic movement.
- 40 At least since Radford (1990).
- 41 (Free) subject inversion is another possibly co-occurring property, at least in French child language, as suggested by the following productions:
- (i) a. Ranger tout seul Grégoire.  
b. Fumer Philippe. (Friedeman 1992)
- 42 Although attested, the RI stage seems to be reduced in a language like Italian compared to the situation in other languages like French, English, Swedish (Platzack 1992), Dutch (Haegeman 1994, etc.), as Guasti (1992) points out. See Rizzi (1994) for a possible interpretation of this asymmetry trying to relate it to the long verb movement process that Italian infinitives appear to undergo (Belletti 1990), contrary to the situation in the other languages quoted.
- 43 The supplementary assumption being that (related to the obligatory selection that functional categories undergo) it is not possible to eliminate functional projections internally to the part of the clause that has been truncated. This strongly constrains the possible omissions of functional categories from clause structure at any stage of acquisition. The structure, although reduced, is preserved. The expectation is then that the “morphological mistakes” which are found do not occur at random, but are structurally determined. See Rizzi (1994) for discussion. See also White and Prevost (1997) for an analysis introducing a comparison with the situation in (“early” and “adult”) L2 acquisition.
- 44 Possibility of (free) subject inversion could be due to the fact that, in the lack of Spec/AgrS, no problem should arise in a non-null subject (target) language for the licensing of a *pro* in this position; the reader is referred to the relevant quoted literature for detailed discussion. Schutze (1997) also quotes cases of nominative subjects in root infinitives (*he cry*). He suggests an interpretation whereby Agr (“accord” in his terms) can be present but T is left unspecified. To the extent that third person singular present indicative ending -s is the realization of a “tense” feature and not of agreement/Agr, this would explain the availability of nominative in these structures. If this interpretation is on the right track, it suggests that tense underspecification can also be responsible for the emergence of the root infinitives stage, as in the original proposal by Wexler (1994). Note that, as Schutze (1997: (42), 232) clarifies, the various Case possibilities for the subject available in root infinitives also show up in other non-finite root clauses which are possible during the same acquisition period, cf. *me crying, her tired, my crying, I crying, she tired*. See n. 14 above for the dissociation of nominative Case from tense.
- 45 See also Hyams (1996). Functional categories appear to also be present in SLI children (Eyer and Leonard 1995).
- 46 Recall that root infinitives are relatively few in Italian child language. The very low rate of agreement mistakes indicates that morphological endings are not picked up at random even in early stages but are chosen on the basis of the relevant morphosyntactic Spec/head agreement process. Note that

- agreement mistakes can in principle be due to different factors: (i) lack of the node Agr and consequent lack of the related morphosyntactic agreement process; (ii) presence of Agr, but lack of the morphosyntactic agreement process; and (iii) presence of Agr and of the morphosyntactic agreement process, but lack of knowledge of the right morphological ending. The last case seems to better characterize the kind of mistakes found in adult L2 acquisition, according to the discussion in White and Prevost (1997). (i) and (ii) could characterize some attested language pathologies where verbal endings are omitted or substituted for (see for instance Miceli and Caramazza 1988), beside (i) characterizing the child language root infinitives stage discussed in the text.
- 47 Case is considered a purely formal feature and as such not part of the [+interpretable] features of DP. Note that if the hypotheses discussed in section 4 are on the right track and the phi-features within DP are expressed through an Agr projection, this would mean that not all Agr and Agr projections should have the same status from the point of view of the “interpretability” of the features expressed.
- 48 But see the “ordering problem” which arises in the so-called “Transitive Expletive Construction” (TEC; Chomsky 1995b), where the expletive pronoun and the associated overt lexical subject of a transitive sentence (also containing an expressed direct object) are predicted to be immediately adjacent to each other, contrary to fact. Note that the inflected verb necessarily intervenes between the expletive and the subject. This would seem to reveal the presence of a further head between the two which could be identified with the AgrS just eliminated.
- 49 See also Kayne (1994) for crucial use of the most rigid X'-schema.