Quantitative Clitics in Romance and Slavic

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Abstract

In this article I argue that quantitative clitics in Romance (Italian and French) and Slavic (Czech) perform the task of identifying a quantitative pro inside an internal argument, since they carry the feature [+quantitative]. In these cases, the clitic, together with its maximal projection, is generated in the Spec of VP. Romance quantitative clitics cannot be related to an external argument, whereas Slavic clitics can. The clitic should be generated in the Spec of AgrP in order to do that. So, the contrast between Slavic and Romance is due to the fact that those clitics have to incorporate into a higher head in order to become visible, but this is not possible unless another head is above Agr. In Slavic, this head is T. The fact that Agr is not enough for pro to be identified by Spec-head agreement (a strategy available in Romance, and incompatible with the presence of the clitic) is due to the fact that Slavic clitics also identify the +gender, +number pro features, which cannot be transmitted by Agr through Spec-head agreement. By contrast, Romance D's governing pro (which carry gender-number morphemes) perform this task.

0. Introduction*

In this paper I will try to show the relevance of the requirement of pro identification in Italian, French and Spanish (Romance languages), on the one hand, and Czech (Slavic language), on the other.

The first section will be devoted to Romance languages. I will try to show that the identifier role performed by quantitative clitics in certain Romance languages (French and Italian) through the [+quantitative] feature, in other languages (Spanish) must be assumed by the agreement morphemes carried by a head D governing pro. The idea is that agreement morphemes carried by Spanish D's are stronger than the ones carried by French and Italian D's as far as the [+quantitative] feature is con-

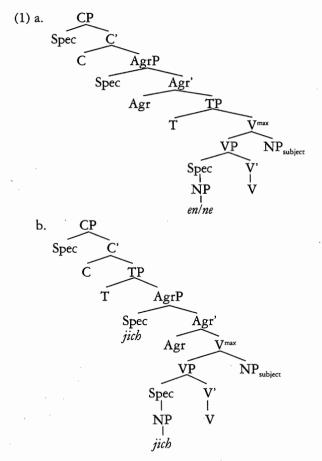
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cerned. This idea has already been expressed by Torrego (1986) with respect to the gender and number morphemes carried by the definite article in Romance.

The second section will be devoted to Czech. I claim that quantitative clitics in Czech are relevant not only for the identification of the quantitative property of pro, but also for its gender and number features. This, together with the hierarchy of functional categories existent in Czech, will allow us to account for the fact that Czech quantitative clitics obligatorily co-occur with external and internal arguments.

My assumptions and proposals are the following:

a) I will adopt the clausal structure in (1a) for Italian and French, and the clausal structure in (1b) for Czech, where the quantitative clitic can refer to both an external and internal argument:¹



(1) Since the Spec position in the TP projection is not going to be relevant for the following discussion, I will not take it into account in this paper, so as to make the structural representations simpler and easier to understand.

For the splitting of the classical IP node into two different nodes (TP and AgrP), see Pollock (1989) and Chomsky (1989).

In these structures.

- 1) the subject is generated in the Spec(ifier) of V^{max}, according to Sportiche (1988):² and
- 2) the quantitative clitic is generated as a maximal projection in the Spec of VP.³ Moreover, in (1b) it can be generated as a maximal projection in the Spec of AgrP.⁴
- (2) V^{max} is a kind of small clause. The subject is generated in the Spec of V^{max}, what allows Sportiche to account for the behavior of floating quantifiers in French. Sportiche claims that the subject has to raise to the Spec of the Agreement Phrase so as to get Case, hence treating Agreement as an obligatory raising category in French, unlike Italian. In this paper, I propose that it is not necessary to refer to a parametric variation based on whether or not this raising is obligatory. I suggest that different principles of expletive pro identification in Italian and French can account for such a contrast between these two languages.

(3) I do not think that this position is reached by movement from inside a DP, as proposed in Belletti and Rizzi (1981). If ne were generated inside the DP, and then cliticized to a head outside the DP, it would be im-

possible to rule out an example such as (i): (i) *Ne parlano tre.

In the D-Structure of (i), ne is generated inside the DP. This DP, according to the structure in (1), is generated in the Spec of V^{mx}. So, ne could be extracted from the DP and cliticized to Agr. Nothing could prevent this move: on the one hand, the anaphoric trace left by movement would be bound by ne from the position reached by cliticization; on the other hand, there would be no barrierhood problem for extraction, since, according to Sportiche (1989), the DP is in a "theta dependent" position (unlike the Spec of AgrP, it is in the Spec of a category, V^{mx}, sister to a theta marking head, Tense).

If we say that the generation of ne as a complement of D is optional, we can understand the absence of ne in (ii), but we cannot understand why ne is necessary when DP is an internal argument, as in (iii):

(ii) Tre parlano. (iii) *Ho mangiato [tre pro]

Belletti and Rizzi's article, previous to the existence of the empty category pro, proposed that this contrast is due to the fact that it is PRO that alternates with *ne*, and that PRO would be governed in (iii), but not in (i). However, if this account is adopted today, the problem arises of how PRO can appear as a complement of D, a head which would govern it. If we substitute PRO for pro, the problem again arises of why pro cannot appear in (iii), since pro can be governed.

I propose that the subject-object asymmetry in relation to the occurrence of ne is due to the fact that ne can only be generated in the Spec of VP, in the same way that certain adverbs can only be generated as sisters to IP, sisters to I or inside VP (see Jackendoff 1972, Sportiche 1988).

A further piece of evidence against quantitative ne movement comes from the following examples in Burzio (1985):

- (iv) a. *Ne inviterò quante conosci.
 of them I will invite whoever you know
 'I will invite whoever you know.'
 - b. Ne inviterò quante pensi.
 of them I will invite whoever you think
 lit: 'I will invite everyone you think.'

According to the movement hypothesis, ne should be generated in both cases as a complement of quante:

(v) DP [quante ne]

I also give the relevant S-Structures of (iv):

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(vi) a. inviterò CP [DP [quante ne]; C[...conosci e; ]]
b. inviterò CP [DP [quante ne] C[...pensi NCA[]]]
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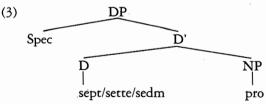
In (vi a), the DP is moved from a thematic position to the Spec of CP. In (vi b) there is a Null Complement Anaphor subcategorized by *pensi*, so the DP has been base-generated in the Spec of CP, and then cliticized to *inviterò* in (iv b). As a consequence, if cliticization to *inviterò* from the Spec of CP is possible, why is this not the case in (iv a)?. The problem does not arise if we say that *ne* can only be base-generated in the Spec of a VP whose head governs the DP. So, in (iv a) *ne* has to be base-generated in the Spec of the VP headed by *consoci* (as in (vii)), whereas in (iv b) it has to be base-generated in the Spec of the VP headed by *inviterò*.

(vii) Inviterò quante ne conosci.

I don't mean that ne has to stay in the Spec of VP all along the derivation. Of course, the head of the maximal NP projection, that is, ne, is subject to cliticization, so that it incorporates into the next higher head.

(4) Notice that (1a) also contrasts with (1b) in the fact that AgrP is above TP. For this difference in the position of functional categories, see Sáez (1991),

- b) The internal structure of the constituents in (2a, b, c) is given in (3):
 - (2) a. Sept (French) b. Sette (Italian) c. Sedm (Czech) (Seven.



- c) The pro in (3) has to be formally licensed, and its content has to be identified (cfr. Rizzi 1986). The formal licensing is performed by the head D, which assigns pro Partitive Case (cfr. Belletti 1988). The identification of the content can be done in two ways:
 - 1) A quantitative clitic generated in the Spec of a VP headed by a V which governs the DP is c-commanding the DP;⁵ furthermore, in Czech it is also possible that the clitic is generated in the Spec of AgrP.⁶
 - 2) The DP is in an agreement configuration with a head which governs it at D-Structure. For external arguments, we will consider this head to be Agr(eement)+T(ense). For direct internal arguments, the head is V (in Czech this strategy is not available, as we will see).
- d) In Italian and French, Nominative Case can be assigned either by T (to the constituent it governs) or by Agr to the constituent in the Spec of AgrP. If Agr-to-C movement takes place, a constituent in the Spec of AgrP can no longer receive Nominative Case under agreement, since the agreement configuration has been broken (for details, see Koopman and Sportiche 1985, Sportiche 1988, Rizzi and Roberts 1989 and Roberts 1990). However, if such a constituent, in turn, does show the Spec status with respect to the new head position reached by Agr (see
 - (5) This accounts for the ungrammaticality of (i), where the DP is not governed by V, but by the P su:
 - (i) *Me ne sono concentrato su alcuni.

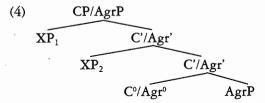
 me of them I have concentrate on some
 'I have concentrated on some of them.'

In the example (vi b) of the note 3, the DP is governed by V, since it is in the Spec of the CP subcategorized by V (cfr. Torrego 1986, Chomsky 1986).

- (6) I could try to relate the fact that Czech quantitative clitics can identify a pro inside an external argument from the Spec of AgrP to the fact that Czech Agr governs the external argument in the Spec of V^{max} , unlike to what happens in Italian and French, where T intervenes between Agr and the subject (see (1b)). So, the ungrammaticality of Romance cases where nelen is generated in the Spec of AgrP so as to identify a pro inside an external argument would be parallel to the ungrammaticality of example (i) of note 5. However, it is not at all clear that the intervention of functional heads triggers ungrammaticality in these cases (in (i) of note 5, it is a lexical head, the preposition su 'on', that intervenes, and not a functional head). Later, I will give a different account for this contrast between Romance and Slavic. That account will be based on Case Theory.
- (7) The basic idea is that the identification of a pro is mainly performed from the head that licenses it through Case assignment (cfr. Rizzi 1986b). In (3) this head should be D. In fact, it is D that licenses the pro, but only after feature percolation from the head governing the DP takes place.

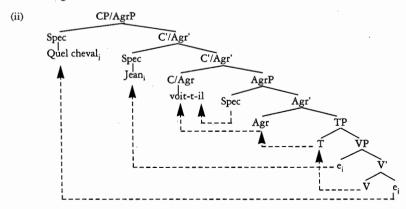
next paragraph), thus the agreement configuration being reestablished, Nominative Case assignment will be possible again.

e) I adopt the Double Specifier Hypothesis proposed by Rizzi and Roberts (1989) in relation to French Complex Inversion. This hypothesis entails the projection of an A-position at the CP level, as a result of Agr-to-C movement. This is shown in (4), where XP₁ occupies an A'-position, and XP₂ occupies an A-position.⁸



- f) As proposed in Roberts (1990), Agr-to-C movement is not obligatory in French, but it is in Italian.⁹
 - (8) An example of Complex Inversion is (i):
 - (i) Quel cheval Jean voit-il? which horse J. sees he 'Which horse does J. see?'

Rizzi and Roberts assign (i) the structure in (ii):



In (ii), Jean is generated inside VP, and gets Nominative Case under agreement with Agr, which is in C. II is an expletive element base-generated in the Spec of AgrP, and does not need to get structural Case, since it has been incorporated into C, hence becoming visible.

Notice that the new A-position projected after Agr-to-C movement is necessary for Jean to be preverbal, since Rizzi and Roberts previously have shown that Jean is neither in a dislocated position (it obligatorily follows the wh-element) nor in the Spec of AgrP, the normal subject position (subject-clitic inversion is in complementary distribution with the complementizer that).

(9) Roberts points out that the situation in French is complex, since we have the following paradigm:

- (i) a. Qui a-t-elle vu?
 - b. Elle a vu qui?
 - c. *A-t-elle vu qui?

d. Qui elle a vu? who she has seen 'Who has she seen?'

In (ia), the wh-element qui raises to Spec of CP, hence requiring the presence of a wh-feature in C, according to a kind of wh-Criterion (cfr. May 1985, Rizzi 1990b). This requirement is satisfied by T-to-Agr-to-C

g) As proposed in Rizzi (1986a), the sequence $(a_1 \dots a_n)$ is a chain only if a_i locally binds a_{i+1} . X locally binds Y iff X binds Y and there is no Z that binds Y without binding X.

Moreover, I adopt Chomsky's (1981) proposal that it is the head of an A-chain that has to bear the Case of the A-chain. Consequently, it is only the foot of an A'-chain that can bear the Case of the A'-chain, since the foot of an A'-chain is either an A-chain in itself or the head of an A-chain.

- h) About expletives:10
 - 1) Italian expletive pro can be licensed under agreement; French expletive pro can only be licensed under government.¹¹
 - Italian expletive pro can transmit Case to a NP. French expletive pro and il cannot. Furthermore, expletive pro cannot get Nominative Case, whereas il has to.¹²

movement, since T is an element base generated as [+wh]. In (ib,c), qui kept in situ, so there is no wh-element in the Spec of CP, nor is a wh-feature in C; as a result, T-to-Agr-to-C movement cannot take place. In (id), a wh-element, qui, is in the Spec of CP, hence requiring the presence of a wh-feature in C. The absence of T-to-Agr-to-C movement shows that this requirement can also be satisfied in French by the agreement features in C. This means that T-to-Agr-to-C movement is optional in French.

By contrast, the ungrammaticality of (ii) shows that in Italian T-to-Agr-to-C movement is obligatory:

(ii) *Chi Gianni a visto who G. has seen 'Whom did Gianni see?'

If the wh- Criterion were simply satisfied by Spechead agreement between chi and C, as in (i d), Gianni could move to the Spec of AgrP, where it could get Nominative Case under agreement with Agr. If Agr obligatorily raises to C, there is an expletive pro in the Spec of AgrP, and Gianni raises to the new A-position, where it receives Nominative Case from Agr. However, a problem arises: Agr not only has to license Gianni (through Case assignment), but also the expletive pro in the Spec of AgrP (through government). Indeed, it is impossible for the same head to license simultaneously two constituents in A-positions (the Uniqueness Condition on Licensing proposed by Roberts 1990).

(10) Unfortunately, it is still not clear to me which the connection can be between the two parameters presented in this section.

(11) The contrast in (i) shows that expletive pro can be licensed under agreement in Italian, but not in French:

(i) a. Pro_{exp} ha telefonato Maria. b. *Pro_{exp} a telephoné Marie.

French Stylistic Inversion is allowed whenever C bears the relevant properties to formally license expletive pro through government. For instance, the [+wh] agreement features in C, resulting from (and licensed by) Spec-head agreement, license the expletive pro in (ii) through government:

- (ii) a. Quand est parti Jean? b. CP[Spec[quand]CP[C[+wh]AgrP[Spec[proexp]...]]] when has left J.

 'When did J. leave?'
- (12) The basic idea is that expletive pro cannot bear Case, since, lacking semantic content, it escapes the visibility requirement. As a result, an expletive pro either cannot ever receive Case (for instance in French, where it cannot transmit it later to other element), or has to get rid of the Case it receives (for instance in Italian, where Case transmission is possible). As for French expletive *il*, it absorbs Case because it has to get interpreted at PF.

However, as an anonymous reviewer of ASJU has pointed out to me, this could merely lead us to conclude that expletive pro need not (rather than may not) bear Case, Appealing to different conceptual grounds, we could say that it is the Principle of Full Interpretation (Chomsky 1989) that determines that expletive pro may not receive Case. According to that principle, only the elements which can be interpreted at a certain level are allowed to be present at that level; superfluous elements have to disappear. At LF expletives are not allowed to be present, since they lack every semantic content. If we allow expletive pro to bear Nominative Case features, as soon as it disappeared from LF the Case features would also be lost. However, the recoverability of those features is important, since they are actually part of Tense, a head which is interpreted at LF. As for the explicit expletives, the fact that they have to be interpreted at PF (unlike null expletives) makes the Nominative Case features recoverable, even if such expletives also disappear at LF.

- i) I assume Roberts' (1990) Uniqueness Condition on licensing (UCL) to be correct: X^o cannot license:
 - (i) two empty categories in a single structure;
 - (ii) two categories in α-argument positions in a single structure.¹³
- j) Throughout the article I will adopt a conjunctive formulation of the ECP along the lines of Rizzi (1990b). According to this formulation, a trace has always to be properly governed by a head, where "properly governed" means to be governed by the head X within X'. That is, a trace in the Spec of XP will never be properly governed by X, since the Spec is not under X'.

1. Quantitative clitics in Romance: Italian and French.

Let us now consider the examples in (5):

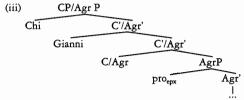
(5) a. [Tre pro] parlano. b. [Trois pro] parlent. 'three speak'.

Here, the DP raised to the Spec of AgrP, where pro is identified under agreement with Agr. Moreover, this configuration allows the DP to get Nominative Case.

- (6) and (7) are ungrammatical since the quantitative clitic cannot c-command the Spec of V^{max} in order to identify pro, so that its presence makes no sense. ^{14/15}
- (13) Roberts claims that the first part of the UCL rules out sentences such as (ia), provided that we assign them a structure such as (ib), where both an empty interrogative operator (Op) in the Spec of CP and an expletive pro in the Spec of AgrP have to be licensed by the same head, namely, C:
 - (i) a. *Est parti ton ami? b. CP [Spec [Op] C [C [est] AgrP [Spec [proexp] Agr [...]]]] has left your friend 'Did your friend leave?'

On the other hand, the second part of the UCL rules out (ii), provided that we assign it the structure in (iii):

(ii) *Chi Gianni ha visto? who G. has seen 'Whom did G. see?'



Since both the new position projected by Agr, and the Spec of AgrP are A-positions, this is a situation where one head, namely, Agr, is simultaneously licensing two elements filling the same kind of position, namely, *Gianni* (licensed by getting Nominative from Agr) and an expletive pro (licensed by being governed by Agr).

(14) As for the grammaticality judgements which follow, Italian and French speakers do not fully agree. In this article I will just focus on the judgements presented in Belletti and Rizzi (1981) and Pollock (1985).

As for the grammaticality contrast between examples in (6) and those which show unaccusative verbs, see the comments to examples in (11).

(15) The ill-formedness motivated by the presence of a quantitative clitic which does not find anything to identify recalls the ill-formedness triggered by vacuous quantification, as in (i):

(i) *Who; did John see Peter?

I am considering the Spec of VP as the position where the quantitative clitic can identify pro. We could say that it is the whole NP headed by ne/en that is performing such an identification. The maximal projection

- (6) a. *[Tre pro] ne parlano. (7) a. *Ne parlano [tre pro]. b. *[Trois pro] en parlent. b. *Il en parle [trois pro].
- (8) are ungrammatical because the DP did not raise to the Spec of AgrP, so that pro cannot be identified:
 - (8) a. *Parlano [tre pro] b. *Il parle [trois pro]

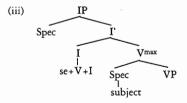
In (9), the ungrammaticality is due to the fact that the quantitative clitic is breaking the A-chain formed once DP raised from the internal position to the external position, which violates Rizzi's (1986a) Condition on Chain Formation presented in the Introduction (section g):

(9) a. * [Tre pro]; ne; sono mangiati e; b. * [Trois pro]; en; sont mangés e; three of them are eaten 'Three are eaten.'

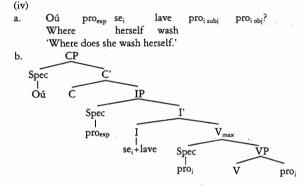
always keeps in the Spec of VP. Of course, after incorporation, the head *en/en* is c-commanding pro in (7), but it seems that this fact has no relevance for quantitative pro identification. In fact, other cases mirror the same constraint. For instance, the French reflexive *se* identifies the pro in object position, as in (ii):

(ii) Marie se; lave pro;M. herself wash"Mary wash herself."

However, if, on the one hand, French is a V-to-I language, and, on the other hand, French clitics appear related to V, this means that *se* appears in I at SS, a position which c-commands the position where the external argument is base-generated, namely, the Spec of Vmax:



If the new position reached by se is appropriate for se to continue to identify null elements, a subject pro should be able to appear in the Spec of V^{max}, which is not the case, as (iv) (a question, hence a context where French "Stylistic Inversion" is possible) shows:



In (10), this problem does not arise. Furthermore, pro is identified because the DP has passed through the Spec of VP before arriving at the Spec of AgrP.

- (10) a. [Tre pro] sono mangiati. b. [
 - b. [Trois pro] sont mangés.
- In (11), the quantitative clitic is present. DP stays in its base position, without raising to the Spec of AgrP, so that no A-chain is broken:
 - (11) a. Ne sono mangiate [tre pro] b. Il en est mangé [trois pro]

Furthermore, the presence of the clitic is obligatory, since DP has not filled the Spec of VP and pro still remains to be identified.

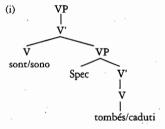
- In (12) the quantitative clitic is identifying pro, since it c-commands it. By contrast, in (13) there is no identifier:¹⁶
 - (12) a. Ne ho mangiate [tre pro]
 b. J'en ai mangé [trois pro]
 I of them have eaten three
 'I have eaten three.'
 - (13) a. *Ho mangiato [tre pro]
- b. *J'ai mangé [trois pro]

Let us now consider (14), which illustrates a contrast between French and Italian:

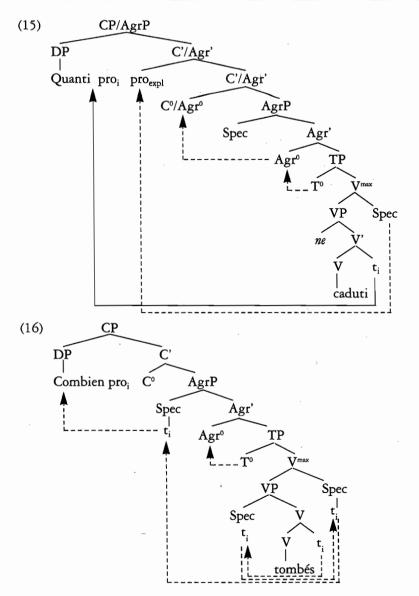
(14) a. [Quanti pro] ne sono caduti?
b. [Combien pro] sont tombés?
how many have fallen down
'How many fell down?'

The structures are given in (15) and (16):17

- (16) For the difference in number agreement between the Italian and French past participles, see footnote 27.
- (17) In (15), the auxiliary sono is below C⁰/Agr⁰; in (16) it is below Agr⁰. On the other hand, if we assume Chomsky's (1986a) proposal concerning the representation of the auxiliaries, we will have to generate those auxiliaries as verbal heads which subcategorize for the VP headed by the lexical verb:



However, for the sake of simplicity in the structural representation, I will ignore every node in the tree which I do not consider to be crucial for the argument to be developed. This is why (15) and (16) do not contain any reference either to a further VP node or to the traces left by movement of auxiliaries.



In (15), since the quantitative clitic is present, there can be no A-chain. DP directly raises from the internal position to the Spec of CP. Pro has been identified by ne. The foot of the A'-chain gets Nominative Case by Case transmission from the expletive pro. This expletive is generated in the Spec of V^{max} (which is a non-thematic position when the verb is unaccusative), and then raises to the Spec of AgrP. However, it cannot be licensed in that position, since the agreement configuration has been broken once Agr-to-C movement has taken place. This movement creates a new A-position at the CP level. Finally, the expletive pro raises to the new A-position, thus being licensed under agreement.

In (16), the DP raised to the Spec of VP, the Spec of V^{max}, the Spec of AgrP and, finally, to the Spec of CP. The pro was identified in the Spec of VP under agreement with V. Since Agr-to-C movement is not obligatory in French, the DP can get Nominative Case in the Spec of AgrP. The foot of the A'-chain occurs in this position.¹⁸

The problem is why (17) are ungrammatical:

(17) a. *[Quanti pro] sono caduti?
b. *[Combien pro] en sont tombés?
how many have fallen 'How many fell?'

In (17a), there is no quantitative clitic. DP raises to the Spec of VP, so as to allow pro to get identified under agreement with V. DP gets Nominative Case by raising to the new A-position projected after Agr-to-C movement. 19 But notice that the vari-

(18) The variable left in the Spec of AgrP is properly head governed by the agreement features in C, as proposed by Rizzi (1990b) for English examples such as (i): (i) Who saw John?

Rizzi points out that the ungrammaticality of (iia) (which contrasts with (iib)) shows that the residual V-2 cases of English are not compatible with a trace left in the Spec of AgrP:

(ii) a. *Who did see John?

b. Who did you see?

Rizzi shows that this contrast is due to the fact that the movement of the auxiliary $d\theta$ to C implies that C lacks agreement features, so that it is unable to head govern a trace in the Spec of AgrP.

Rizzi (1990a) suggests that the same phenomenon (the incompatibility of residual V-2 cases with extraction from the Spec of AgrP) is also present in Modern French. The French interrogative pronoun que can only occur when the inflected V has been moved to C, as the contrast between (iiia) and (iiib) shows:

(iii) a. Que manges-tu? what eat you 'What do you eat?' b. *Que tu manges?

As a consequence, the ill-formedness of (iv) can now be accounted for: the representation in (v a) is excluded on a par with (iii b), and the one in (v b) is excluded on a par with (iia):

(iv) *Que sent mauvais?
what smells bad
'What smells bad?'

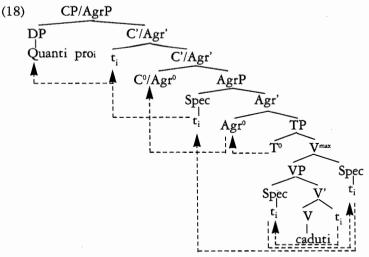
(v) a. *Que_{i AgrP} [e_i sent mauvais] b. *Que_i sent_{j AgrP} [e_i e_j mauvais]

(19) The obligatory movement of DP to that position is also due to the fact that an A-chain resulting from a shorter movement from the internal thematic position to the Spec of VP (where pro could be identified) and finally to the Spec of V^{max} (where the variable could be properly head governed by T) would violate the condition presented in the Introduction (section g), which says that the head of an A-chain has to bear Case. Indeed, DP cannot get Case in the Spec of V^{max}, since this would violate the UCL: the Nominative Case would simultaneously be used to license two constituents in two different A-positions, namely, the expletive pro in the new A-position projected after Agr-to-C movement (licensing by agreement) and the DP in the Spec of V^{max} (licensing by Case assignment through government). The violation of the UCL could be avoided if we say that the DP in the Spec of V^{max} gets its Case by Case transmission from the expletive pro. However, this would be at odds with the idea that NP-movement is triggered by the Case Filter. Olga Fernández Soriano has pointed out to me that this could also be the reason why (ia) is ungrammatical, unlike (ib) and (ic) (the data come from Spanish):

(i) a. *Parece Juan venir b. Parece venir Juan. it seems Juan to come c. Juan parece venir. 'Juan seems to come.'

In (ib), the internal argument Juan has not been moved, and it gets Nominative Case through Case transmission from the expletive pro in the Spec of the main AgrP. In (ic) the Case transmission system through an

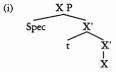
able left in this position after wh-movement to the Spec of CP takes place is not properly head governed. The structure of (17a) is given in (18):20



expletive is not used, since Juan raises to the Spec of the main AgrP, where it directly receives Nominative Case under agreement with Agr. However, in (ia) we have mixed the two possibilities in a way that seems to contradict the notion of Economy proposed in Chomsky (1989): on the one hand, Juan raises to the Spec of the embedded AgrP; on the other hand, an expletive pro is inserted in order to transmit the Nominative Case to Juan, who has stopped on a non Case-marked position. Briefly, whereas in (ib) and (ic) we choose one of two possibilities (either the insertion of expletive pro, or the movement of the constituent to a Case-marked position). in (ia) the two possibilities are used simultaneously.

Neither can these problems be avoided if we propose that DP raises to the Spec of AgrP, getting Nominative Case by Case transmission from the expletive pro located in the new A-position projected after Agr-to-C movement. Furthermore, this position is not properly head governed by C (as in the examples (iia) and (iv) of note 18), so that no variable can be present in such a position.

(20) An anonymous reviewer of ASJU has pointed out to me that the structure in (18) gives rise to a problem in relation to the formulation of ECP presented in the Introduction (assumption j)). Indeed, if "properly governed" means "to be governed by the head X within X'", as said, we would have to wonder whether or not a trace which result from the adjunction to the projection X' (t in (i)) is properly governed:



Under a definition of within based, in turn, on a concept of dominate which considered that a constituent is dominated by a node just in case it is dominated by every segment of that node (cf. May 1985, Chomsky 1986), no problem arises in (i): the trace cannot be properly governed by X', since t is not dominated by every segment of X'. The same conclusion could be drawn with respect to (18): ti is not properly governed by C⁰/Agr⁰, since it is not dominated by every segment C'/Agr'. Nevertheless, I think that there is no real parallelism between the structure in (i), which underlies the question raised by the reviewer, and the structure in (18). What the misleading C'/Agr' recursivity actually intends to reflect in (18) is the fact that a new Spec position is created as soon as Agr reaches the position C. As suggested by Luigi Rizzi (Spring course, University of Geneva, 1989), under a tridimensional representation of the structure, previous to the linearization process (cf. Goodall 1987), the new Spec position could be placed "behind" the Spec position occupied by the wh-element. Thus, as far as proper government by the head of the complex projection is concerned, the rightmost Spec shares the same properties as the leftmost one.

In (17b), there is a quantitative clitic, which suggests that the foot of the A'chain is the internal object position, as in (14a). The problem is that this variable cannot get Nominative Case, since the expletive pro in French cannot transmit Case.

If expletive pro cannot transmit Case in French, how can the NP in (19) be Case marked?

(19) Où ont été executés ces innocents? where have been executed these innocents 'Where have these innocents been executed?'

The answer is that the DP raises to the Spec of V^{max} , where it receives Nominative Case from T. The DP could also have got Partitive Case in its base position, but this kind of Case is not satisfactory, since the DP is [+definite] (cfr. Belletti 1988). The reason why the variable could not get Partitive Case in (17b) is that, according to Belletti (1988), Partitive Case is carried by the *wh*-phrase, and it cannot stand on the variable, unlike the structural Case.

Let us now consider the contrast in (20):

(20) a. *Quand en a été imprimé [un pro]?
b. Quand en a-t-il été imprimé [un pro]?
when of them has been printed one
'When has one been printed? '(Pollock 1985)

In (20a), the DP gets Partitive Case. However, the Nominative Case has to be assigned to some constituent, and no constituent is available as a receiver, since the French expletive pro is not able to bear Case. If the DP raised to the Spec of V^{max} to get Nominative Case from T, there would be an A-chain broken by the quantitative clitic.

In (20b), the DP gets Partitive Case, and the Nominative Case is assigned to *il*, which is an obligatory Case bearer.²¹

The fact that *il* absorbs Nominative Case means that DP cannot receive Nominative Case any more. This explains the contrast in (21).

- (21) a. *Il est venu tous les invités. there has come all the guests 'All the guests came.'
 - b. J'aimerais que viennent tousles invités. I'd like that come all the guests 'I would like that all the guests come.'

In (21a), il absorbs the Nominative Case, so that the DP has to get Partitive Case in order to be visible. The ill-formedness is due to the fact that the DP simultaneously has the property of definiteness and bears Partitive Case. By contrast, in (21b) the DP raises to the Spec of V^{max}, where it can receive the Nominative Case. This

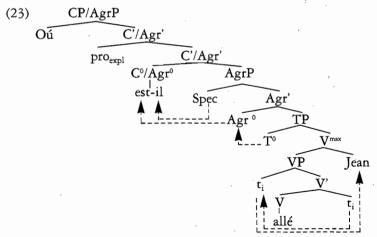
⁽²¹⁾ The occurrence of *il* to the right of the auxiliary is due to a phonological cliticization from the position of Spec of AgrP to Agr. This entails that, after Agr-to-C movement, *il* raised to the new A-position projected at the CP level, and then it was phonologically cliticized to Agr.

allows the DP to escape from the Definiteness Effect. Moreover, the expletive pro is generated in the Spec of AgrP, where it is licensed by C, probably thanks to the presence of some subjunctive mood features which make C a possible licenser.²²

Properties of expletives allow us to give an account for the contrast in (22):

- (22) a. *Où est il allé Jean? where has there gone J. 'Where did Jean go?'
 - b. Le jour où est venu Jean. the day when has come J. "The day when Jean came."

In (22a), Jean is generated in the object position and raises to the Spec of V^{max} so as to get Nominative Case from T, thus avoiding the Definiteness Effect. Il is generated in the Spec of AgrP, and incorporates into C in order to get visible while avoiding the requirement of Nominative Case absorption.²³ However, something has to appear in the A-position created after Agr-to-C movement, which is obligatory in this case, since il has to incorporate into C. So, an expletive pro has to be generated in this position, but it cannot be licensed there, since it is not head governed. The structure is given in (23):

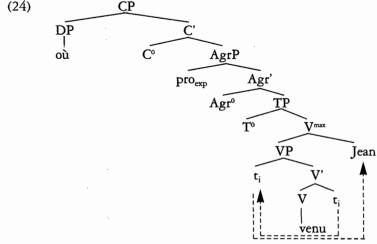


(22) On the relation between Subjunctive mood and the properties of Comp, see Raposo (1985-1986). Among other things, predicates which determine the choice of Subjunctive mood in their embedded inflections (verbs of volition, influence, permission, etc) also disallow coreference between the subject of the main clause and the subject of the embedded clause, as in the French example (i):

Raposo proposes that this phenomenon relies on the notion "binding domain", for which the properties of Comp (more concretely, the role played by a [+TENSE] operator) will be relevant: the binding domain of the pronominal subject in (i) is the matrix clause.

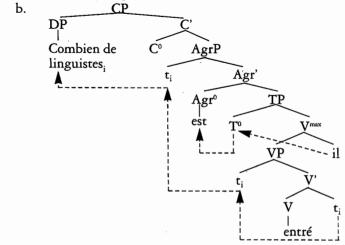
(23) I make here a crucial distinction between phonological cliticization, which entails Case absorption by the clitic (as in (20b); see note 21), and syntactic incorporation, which allows the Case assigner to assign the Case to a different constituent. The phonological cliticization is done from the Spec of a maximal projection to the head. The syntactic incorporation entails the raising by a head to a second head that c-commands the maximal projection of the former. This forces Agr-to-C movement in (22a) (cfr. Roberts 1990).

In (22b), Jean raises to the Spec of V^{max} in order to escape from the Definiteness Effect. Furthermore, let us suppose that Agr-to-C movement took place. As a result of this, the sentence would be ruled out for the same reason as in (22a): an expletive would have to be present on a the new Spec position created after Agr-to-C movement. However, notice that such a movement is not obligatory, since, unlike to what happened in (22a), no expletive il is present, so no incorporation of that expletive to a higher head C is required. The expletive is a pro in the Spec of AgrP, where it is licensed by the governing head C. The structure is given in (24):



I have said that the foot of an A'-chain has to get structural Case. As a consequence, (25a) will have to receive the structure in (25b):

(25) a. Combien de linguistes est-il entré dans son bureau? how many linguists have-there entered their office 'How many linguists entered their office?'

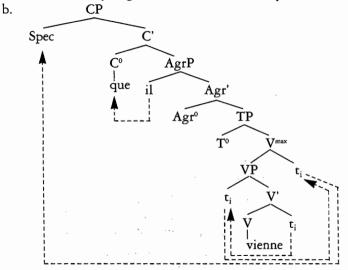


First, DP raises to the Spec of AgrP, where it can get Nominative by agreement. Something has to be done in order to prevent *il* from absorbing the Nominative Case features. *Il* is generated in the Spec of V^{max}, and then incorporates into Agr. So, no Agr-to-C movement has taken place, and the variable in subject position is properly governed by the agreement features in C once the wh-element reaches the Spec of CP.

In (26a), *il* incorporates into the embedded C, and the Nominative can be assigned by T to the DP in the Spec of V^{max} . The variable is properly governed by T, as the structure in (26b) shows:

(26) a. Combien de linguistes faudrait-il qu' il vienne? How many linguists would-it-be necessary that there come (Pollock 1985)

lit: 'How many linguists would it be necessary that come?'



Summarizing, I have shown that the presence of quantitative clitics in French and Italian is related to the presence of a quantitative pro which has to be identified in one of two ways: either by the base generation of that quantitative clitic (which will c-command pro), or by being in the Spec of a head that formally licenses the DP which contains pro. Some asymmetries between Italian and French have been accounted for by using Rizzi and Roberts' (1989) hypothesis about the A-position projected by Agr once Agr has been moved to C,²⁴ and Roberts' (1990) proposal that in Italian such a raising is obligatory, while in French it is not. These ideas, together

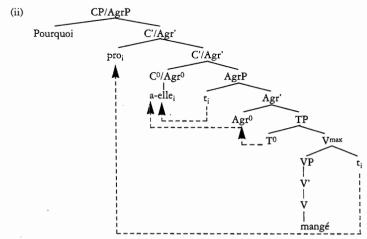
(i) Pourquoi a-t-elle mangé? why has she eaten 'Why did she eat?'

⁽²⁴⁾ I propose here that the projection of the A-position after Agr-to-C movement is obligatory. This leads to accepting that, in French Simple Inversion sentences (i), a pro with referential content occurs on that position. That is, French behaves as a pro-drop language in this specific case, as shown in (ii):

with some proposals concerning the properties of expletives in French and Italian, have allowed us to account for impersonal *il* constructions and Stylistic Inversion sentences.

2. Quantitative clitics in Slavic: Czech

In this section, I will analyze the role performed by quantitative clitics in Czech. In this language, the quantitative clitic *jich* 'of them' can appear no matter whether the pro to identify is within an external (27a) or internal (27b) argument:



In (ii), a pro with referential content is generated in the Spec of V^{max} (a thematic position). Simultaneously, a pronoun with phonological content, and coreferential with pro, is generated in the Spec of AgrP (a non-thematic position). The obvious problem is how the two constituents can share the same thematic role. Notice that this is a problem not only for my proposal, but also for Rizzi and Roberts's (1989) hypothesis about French Complex Inversion. Indeed, faced with an example as (iii), they should have to answer to the question of how *Marie* and *elle* can share the same thematic role, given that *elle* is not an expletive in French (recall that, in relation to the example (i) of note 8, Rizzi and Roberts appeal to the possibility that *il* be an expletive, that is, that it do not get a thematic role):

(iii) Pourquoi Marie est-elle venue?
why M. has-she come
'Why did Marie came?'

The problem can be solved by considering (iii) as a case similar to the Spanish Object Clitic Doubling phenomenon (Jaeggli 1982):

(iv) Le di un libro a Juan; to him I gave a book to J. 'I gave Juan a book.'

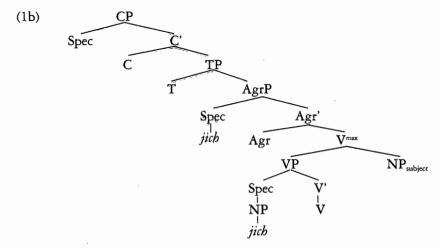
In (iv), the clitic le and the NP Juan are sharing the same thematic role too. (i) would be the case where the DP is replaced by pro. (v) exemplifies this possibility for Spanish.

(v) Le_i di un libro pro_i.'I gave him a book.'

In both cases, (i) and (v), the morphological richness provided by the cliticized element is responsible for the licensing of a referential pro. Since the cliticization of subject pronouns with referential content only takes place after Agr-to-C movement in French, I predict that French pro-drop phenomena (when pro is not an expletive) can only arise in these contexts.

- (27) a. Ten dopis jich tehdy několik podepsalo that letter of them then some have-signed 'Then some of them have signed that letter.'
 - b. Dnes jich tam videl pet. today of them there he-saw five "Today he saw five of them."

This suggests that, as has been represented in (1b) (repeated below), *jich* can be generated in the Spec of AgrP, unlike *ne/en*, which can only be generated in the Spec of VP:



Assuming that quantitative clitics need to become visible, they must incorporate into the closest head. According to the conclusions presented in Sáez (1991), where it is argued that T is above Agr in the group of Slavic languages which Czech belongs to, such a head must be T. By contrast, in French and Italian a head for en/ne to incorporate into is not available, since in these languages Agr is above T (cfr. Chomsky 1989).

However, Czech, in turn, is more restrictive than French and Italian in a different way: the strategy of identifying the quantitative pro by Spec-head agreement is not available. In the following paragraphs I will give an account for this.

First, I will analyze how accurately the identification of quantitative pro is performed. Since this pro appears inside a DP, I will first focus on the identification of pro's (in general) inside a DP. Here, Torrego's (1986) approach will be relevant.

Finally, notice that, although in the structure (ii) pro locally A-binds elle without forming an expletive-lexical NP chain (as an anonymous reviewer of ASIU has pointed out to me), no problem seems to arise in relation to Condition B of the Binding Theory. Indeed, (i) can be distinguished from canonical Condition B violation such as (vi) by the relevant fact that the coindexed constituents in (i) have to share the same theta-role, whereas in (vi) each constituent has its own theta-role.

⁽vi) *John sees him.

Torrego treats examples such as (49):

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(28) a. Los pro de Madrid. (Spanish) c. *Gli pro di Madrid. (Italian) b. *Les pro de Madrid. (French) "The ones from Madrid."
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Torrego (1986) says that, in (28a), the agreement morphemes present in the definite article los are able to identify pro, that is, los is base generated as "strong" Agr-features (gender and number) on D. She points out that Spanish definite articles are not marked for person, and that something else has to provide D with the person-feature necessary to identify the empty pronominal, a requirement on pro identification proposed by Borer (1986). The modification performed by the complement de Madrid may qualify to provide D with the missing person feature, since it is [+N], and only modifiers that are [+N] bear person features.²⁵ This is not possible in (28b,c), which leads Torrego to suggest that definite articles in some Romance languages are "weak". Only when there is a constituent with its own strong Agr morphemes inside the DP can the pro be identified, as is the case in (29), where the adjective rosso carries such strong morphemes:

(29) Il pro rosso. The red 'The red one'

For examples such as (28a), Torrego says that the complement *de Madrid* provides D with the person-feature which allows D to identify pro. The fact that this constituent produces such an effect on the head (namely, sharing the person-feature), leads her to propose that it occupies the Spec of DP.

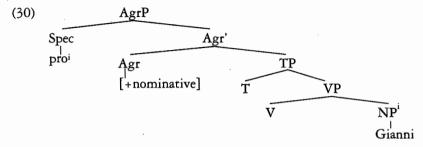
Let us now suppose that quantitative pro identification involves not only gender and number features, but also the feature [+quantitative]. My hypothesis is that Italian and French morphemes in D lack the [+quantitative] feature, necessary to identify the quantitative pro. Therefore, something else is needed which carries this feature. Two strategies are available. On the one hand, the DP can raise to the Spec of AgrP/VP, thus being in an agreement configuration with Agr/V. I propose that the heads Agr and V have the ability to assign its Spec (the DP) the quantitative feature

(25) In (28), de is not a P with overt semantic content, so it is reasonable to suppose that the complements headed by such a P are not PPs. If we substitute de for a P with semantic content, thus giving rise to a PP complement, pro will not be identified, since this complement will not be [+N] (cfr. Torrego 1986):

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(i) a. *Los con azúcar. b. *Los sobre política. the with sugar the on politics.' the ones with sugar.'
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An anonymous reviewer of ASJU has pointed out to me that the fact that Basque nominals such as (ii) sharply contrast with (i) in grammaticality can suggest that, in those languages where nouns have no gender, the conditions on pro identification in nominals are not so strict:

(ii) Arrotz herriekilako (minixtro)a foreign country-pl.-with-ko (minister)-the 'The (minister) of foreign affaires.' by agreement.²⁶ Later, the feature percolates down from DP to D, thereby identifying pro. The other possible way of identifying pro is by generating a quantitative clitic in the Spec of VP in order to provide the head D with the feature [+quantitative]. I will also propose that, in turn, the quantitative clitic has been generated in the Spec of VP in order to get the [+quantitative]-feature assigned by V under agreement; afterwards, the clitic transfers this feature to the pro inside the DP. This suggests that the clitic and the pro form a chain in some way, a chain which eventually enables the [+quantitative] feature assigned by V to its Spec to identify the quantitative pro. Notice that the function of this chain is similar to the one found in constructions with expletives, namely, it provides a constituent with a feature assigned by a head not "close" enough. Thus, in (30) the expletive pro provides the postverbal subject with the Nominative Case feature, whereas in (31) the quantitative clitics are providing the quantitative pro with the feature [+quantitative]:²⁷



- (26) In this paper I have not explored the possibilities offered by the functional node called Object Agreement (cfr. Kayne 1987, Chomsky 1989), although I think it would not be difficult to adapt the representations drawn thus far to a framework taking object agreement as an independent projection. The point which mainly concerns us here is that the existence of object agreement provides the French and Italian quantitative pro with a licensing strategy, since it will now be possible to say that the [+quantitative] feature can be assigned by V to the DP through a Spec-head agreement relation.
- (27) The parallelism between these two procedures of feature transmission is strengthened by other phenomena surrounding them. For example, in French the presence of an expletive *il* implies that the verb doesn't agree with the thematic subject:
 - (i) a. Il est venu trois filles. b. *Il sont venu trois filles.
 there has come three girls
 'Three girls came.'

By contrast, the presence of the Italian expletive pro in the Spec of AgrP implies the agreement between the verb and the thematic subject:

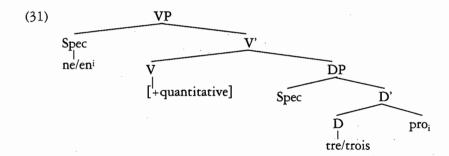
(ii) a. Sono venute tre ragazze.

have come three girls

b. *E venuto tre ragazze.

In the same way, the presence of the quantitative clitic in French doesn't trigger gender/number object agreement (iii), while in Italian it does (iv):

- (iii) a. J' en ai mangé trois. (iv) a. Ne
 I of them have eaten three of t
 'I have eaten three.' 'I h
 - b. *J'en ai mangés/mangées trois.
- (iv) a. Ne ho mangiati/mangiate tre. of them I have eaten-pl.masc/pl.fem. three 'I have eaten three.'
 - b. *Ne ho mangiato tre.



It is not at all possible to say that the quantitative clitic is also providing pro with the gender and number features. Indeed, Italian and French quantitative clitics do not carry gender-number morphemes. We can consider that the D's subcategorizing for the quantitative pro already carry such features, thus completing the pro identification.²⁸

However, in Czech the situation is quite different. Czech quantitative clitics do exhibit differences in gender and number. In (32a), bo can refer to a masculine/neuter singular constituent; in (32b), jí refer to a feminine singular constituent.

(32) a. Karel ho měl málo. Karel of him/it had little 'Karel had little of him/it.' b. Josef jí měl málo. Josef of her had little 'Josef had little of her.'

Moreover, the D's subcategorizing for quantitative pro's (pět 'five', mnoho 'many', málo 'few', několik 'several', etc) do not exhibit gender-number morphemes, as the examples in (33) show:

(33) a. pět mužů. c. málo mužů.
'five men.' 'few men.'
b. mnoho mužů. d. několik mužů.
'many men.' 'several

Consequently, I propose that the gender and number features of quantitative pro in Czech are identified by the quantitative clitic, rather than by the D which governs pro. We can relate this fact to the non availability of the Spec-head agreement strategy to identify the quantitative pro in Czech. Indeed, Agr/V could assign pro the feature [+quantitative] if DP occupied the Spec of AgrP/VP. However, this would not be enough to assign pro the gender-number features. A DP like the ones in (33) agrees with the verb in singular and neuter, no matter whether the clitic is singular, plural, feminine or masculine. So, in (34) the active perfect participle agrees with the subject in neuter and singular (podepsalo, not podepsali), although the clitic is plural:

⁽²⁸⁾ As far as Spanish is concerned, I propose that Spanish D's subcategorizing for a quantitative pro do carry the feature [+quantitative], thus being able to complete the licensing requirement in the same way as the agreement features associated with Spanish definite article are able to license a non-quantitative pro. Therefore, no quantitative clitic is necessary.

(34) Několik jich tehdy podepsalo ten dopis. some of them then have-signed that letter 'Then, some of them signed that letter.'

This suggests that the identification of quantitative pro can only be completed if the quantitative clitic is present. As proposed in (1b), it can be generated either in the Spec of AgrP or in the Spec of VP.

Summarizing, two questions arose in this section, where I focussed on Czech quantitative clitics:

- a) why quantitative clitics related to an external argument are possible in Czech and not in Romance.
- b) why the strategy of identifying pro through Spec-head agreement is available in Romance, but not in Czech.

The first question was answered in the following way: the quantitative clitic needs to become visible, and this is only possible if it incorporates into the closest higher head. Wherever the clitic is related to an internal argument, this is possible in Czech as well as in Romance: since the clitic is generated in the Spec of VP, it can incorporate into a functional head (Agr or T). However, when the clitic is related to an external argument, an important difference between Slavic and Romance becomes relevant: in Slavic, TP dominates AgrP, so that a clitic generated in the Spec of AgrP can incorporate into T; in Romance, by contrast, AgrP dominates TP, so that a clitic generated in the Spec of AgrP finds no functional head which it can incorporate into (since C only plays a role in certain sentences, as, for instance, in questions).

The second question was answered by using Borer's (1986) and Torrego's (1986) proposals on identification. It was proposed that, in Romance, quantitative pro is identified in two steps: on the one hand, the morphemes in D are relevant for pro identification as far as gender-number features are concerned; on the other hand, the quantitative clitic is necessary in order to complete the identification with respect to the feature [+quantitative]. It will be possible to get rid of the clitic if the DP is in the Spec of AgrP/VP, since Agr/V can also assign the feature [+quantitative]. By contrast, in Czech, quantitative pro is identified in just one step: the fact that the clitic carries gender and number features, whereas D lacks them, suggests that the clitic fully assumes the identifier role with respect to all the features. Therefore, if DP occupies the Spec of AgrP/VP, the identification cannot be concluded: Agr and V can only assign the feature [+quantitative], but not the gender-number features. Therefore, the clitic always has to be present.

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