

# BURZIO'S GENERALIZATION, BINDING THEORY AND I-SUBJECTS

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The aim of this paper is to explore an alternative approach to the standard GB theory on the nature of AGR and sentence subjects. It accounts for the classical cluster of pro-drop properties (null subjects, subject inversion and absence of *that-t* effects) and also for verb movement in infinitives in pro-drop languages, which is longer than in non pro-drop ones. The present theory also derives Burzio's Generalization, by reducing it to a structural requirement without making direct reference to theta-theory (i.e., the presence or absence of the external theta-role).

## 0. Introduction

The aim of this paper is to explore, at a very general level, an alternative to standard assumptions in the GB framework on the nature of AGR and subjects, as a basis for an account of the standard cluster of properties which hold for most null subject languages:

- null subjects
- subject inversion
- absence of *that-t* effects

It is also an attempt to account for another fact that holds for most Romance null subject languages, namely infinitival long head movement.

On the other hand, the theory is conceived as a way of deriving a classical descriptive generalization that is not easy to derive from standard assumptions, namely Burzio's Generalization (BG). The two facts correlated under this generalization are not

straightforwardly derivable from a single syntactic premise, since they look very different in nature. In the present account, BG is reduced to a version of the Extended Projection Principle.

We will be assuming a split-INFL hypothesis as defined in Belletti (1990), where AGR is the highest member of INFL. We also assume some version of the internal subject hypothesis as in Koopman and Sportiche (1986-90).

The present theory has nothing to say about AGR-Subject dependencies which take place outside the domain of IP (Aux-to-COMP, pro-drop in Old French). Whether it can be felicitously extended to cover such facts is beyond the scope of this paper.

In section 1, I develop a possible account of BG based on standard notions of subject inversion and expletives. In section 2, Binding Theory is brought into consideration to show that it appears to undermine the account in section 1, as far as this account misses some generalizations on subject inversion and expletives. In sections 3 and 4, we present a theory on the way the dependency between AGR and the sentence subject is established, so that BG is derived together with the cluster of properties of pro-drop vs. non pro-drop languages. Finally, section 6 is devoted to infinitival constructions.

## **1. Burzio's Generalization and the EPP**

Since Burzio formulated it in Burzio (1981), the so called Burzio's Generalization (from now on BG) has been considered an accurate characterization of the distribution of Accusative Case.<sup>1</sup> Let us take an up-dated version of BG:

- (1) Structural Accusative Case is available iff there is an external theta-role.<sup>2</sup>

BG has always been seen as a descriptive generalization that should be derived from other principles, because the two facts it makes correlate (Accusative Case and External Theta-role)

are not of the same nature. The aim of deriving BG has proved a difficult one, though. In fact, Burzio (1986) considers it a lexical principle. In this section, we will consider a possible way to derive BG within standard assumptions.

A possible account can be based on Chomsky (1986b)'s theory of CHAINS, together with the extended projection principle. CHAIN can be defined as the unification of two traditionally different syntactic concepts: A-Chains (ordered sets A-positions linked by an antecedent/trace relation) and expletive/Argument relations. CHAINS are the entities that receive theta-roles, subject to the condition they have only one Case.

We could then try to derive BG from the following principles (or theorems), one of which is a special version of the Extended Projection Principle (EPP):

- (2) *Extended Projection Principle:*  
Spec of AGR has to be a member of a CHAIN.<sup>3</sup>
- (3) A CHAIN must contain one and only one Argument.
- (4) A CHAIN must contain one and only one Case.
- (5) Accusative assignment is optional.
- (6) Case has to be assigned to the head of a maximal CHAIN.<sup>4</sup>

Let us consider a verb like *sink*. This verb (together with all transitive/unaccusative verbs) constitutes one of the core cases for which BG is intended: they assign Accusative in the transitive version, but they do not in the unaccusative version. We cannot assume this is an idiosyncratic property of *sink*, since there is no verb being like *sink* in its transitive/ergative alternation but assigning Accusative when it does not assign external theta-role.

Suppose we assume that verbs like *sink* can uniformly assign Accusative in both the transitive and the unaccusative version, both assignments being optional. In the transitive version, the object has to receive Accusative because there is no other Case available, Nominative being

required by the External Argument (let us assume that the reverse situation, i.e., for the external Argument to receive Accusative and the internal Argument to receive Nominative, is excluded in some way).

What would happen if, in the unaccusative construction, *sink* assigned Accusative? By the EPP in (2), Spec of AGR would have to be a member of a CHAIN. By (3), this CHAIN has to contain an Argument. The only candidate to be the Argument in this CHAIN would be the object, but, since the object would bear Accusative and the head of the CHAIN would bear Nominative (or another Case in ECM or for-infinitives), this would create a Case conflict, since the CHAIN would contain two Cases in violation of (4). Finally, (6) excludes derivations like:

- (7) a. It is strange there to sink the boats<sub>Acc</sub>  
b. It is strange the boats to sink t<sub>Acc</sub>

where the CHAIN has only one Case but it is not assigned to the head of the maximal CHAIN.

The theory above does not say anything about the indefiniteness restriction on overt expletive CHAINS. Belletti (1988)'s theory of Partitive Case accounts for this restriction. It also predicts, based on the assumption that Partitive is an inherent Case, that indefinite DP's in these constructions are restricted to theta-positions, (see (8a)), and specifically to theta-positions which are theta-marked by the verb which assigns partitive (see (8b)):

- (8) a. \*There seem men to have come  
b. \*There were considered men intelligent

So, Belletti's theory looks superior on empirical grounds. If we want to maintain this theory, then, the above account does not work, since an expletive-indefinite CHAIN would contain two Cases (Nominative and Partitive).

Another problem the above theory does not account for is subject inversion in languages such as Italian and its absence in languages like English. If subject inversion is analyzed as involving an expletive/Nominative CHAIN, then why are overt-expletive/Nominative CHAINS not possible?

A solution to both problems can be based on the following principles (which replace (4) above):

- (9) A CHAIN can not contain two structural Cases.
- (10) Null expletives do not require Case, while overt ones do.

(9) and (10) together allow the three only cases of expletive CHAINS which are attested:

- expletive/CP (assuming that the CP does not require Case): there is one Case, which is assigned to and retained by the expletive:

- (11) *It* strikes me *that*...

- expletive/indefinite: the expletive gets Nominative and the indefinite gets Partitive. The two Cases do not conflict according to (9) if Partitive is an inherent Case:

- (12) *There* arrived *a man*

- null expletive Nominative (free subject inversion): the null expletive gets Nominative, but, since it does not require it, Nominative can be transmitted to the inverted Subject:

- (13) *pro* Lo farà *Gianni*  
it will-do Gianni  
'GIANNI will do it'

The above sketch of a theory is a possible way of deriving BG. It crucially relies on a theory of expletives. In the next section, I will consider Binding Theory facts which appear to undermine such a kind of approach. I will contend that some generalizations are not expressed by the preceding theory and by any theory of expletives.

On the other hand, we will see that the version of the EPP defined in (2) is falsified in languages like German, where Spec of AGR is not always a member of a CHAIN, i.e., in this language there are constructions in which the expletive is not linked to any Argument, and therefore Spec of AGR does not contain a member of a CHAIN, if CHAINS have to contain an Argument, as is crucial in the above account. Nevertheless, BG is respected in German, so the above account does not work.

## **2. Binding Theory and Expletives**

It has traditionally been noticed that a theory of expletives poses an immediate problem for Binding Theory (BT): if the expletive is coindexed with the Argument it is linked to, there should be a BT violation. I will not consider all the solutions that have been proposed for this problem. Some of them (co-superscripting) do not fit into a theory of CHAINS, if we reasonably assume that members of CHAINS should be uniformly coindexed in the same way: otherwise the concept of CHAIN would hardly be a unitary concept.

In Chomsky (1986b), a solution is proposed consisting in simply stating that Expletive/Argument binding relations do not count for BT:

(14) Binding of an Argument by a non-Argument is not subject to Binding Theory.

In Chomsky (1986b), another solution is suggested: expletives are replaced at LF by the Argument they are linked to: if BT holds at LF, violations of BT by expletives are overridden. In the same spirit, Chomsky (1988) proposes that the Argument is adjoined to the expletive.<sup>5</sup>

All of these approaches share a common idea: expletives would pose a problem for BT if some grammatical principle or process did not neutralize their BT effects. I think that this approach is suspect in the following sense. As noted by Borer (1986):

(15) Overt expletives never agree with the Argument they are linked to.

Overt expletives are always singular (or adverbial, as English *there* ) independently of the number feature of their Argument. Of course, we can stipulate that expletives are essentially uninflected elements, but then it is quite plausible that this fact alone is sufficient to exclude them from the scope of BT. If we assume that Binding involves sharing of phi-features, then expletives cannot bind, and no further stipulation is required. In other words, a theory which neutralizes BT effects in expletive constructions appears to be spurious because there is nothing to neutralize.

On the other hand, if expletives are not coindexed with the Argument in the same way as in Chains, the notion of CHAIN is considerably weakened: either we allow some other linking device (such as co-superscripting) for expletive CHAINS or we give up any linking device: in both cases, there is no unitary linking device for CHAINS.

In conclusion there seems to be a tension between a theory of CHAINS, which conceives expletive/argument links as having essentially the same nature as Chain links, and the generalization in (15), which rather suggests no linking between expletives and Arguments.

\* \* \*

Now, let us consider subject free-inversion. The standard analysis since Chomsky (1982) is that subject free-inversion involves an expletive *pro*. We will be considering an array of BT facts that appear to undermine the simple idea that expletives are involved in subject inversion.

Let us assume that all Arguments in a sentence (including the external Argument) are generated inside (or close to VP, as in Koopman & Sportiche's several papers (1986-1990)). Let us call I-subject (suggesting internal subject) the Argument in this basic position which is coindexed with AGR. Let us assume that inverted subjects in Italian are Arguments in this basic position, so they are I-subjects. What is the nature of I-subjects with respect to the features [ $\pm$ pronominal] and [ $\pm$ anaphoric]?

Within standard assumptions, at S-structure, I-subjects in English are always NP-traces (abstracting away from indefinite and CP arguments), so they are null anaphors. In Italian, I-subjects can be NP-traces too, but, since null expletives license inverted subjects, they can also be R-expressions (full DP's or variables) and pronominals (specifically overt pronominals). So, concerning the status of I-subjects, English would be a subset of Italian. Within standard assumptions, the status of I-subjects would be, abstracting away from indefinite and sentential subjects:

(16) *Status of I-subjects:*

		<i>English</i>	<i>Italian</i>
- anaphors	null	+	+
	overt	-	-
- pronominals	null	-	-
	overt	-	+
- R-expressions	null	-	+
	overt	-	+

Let us assume the contrast English/Italian is representative of the contrast non-pro-drop vs. pro-drop languages. The distribution of values in (16) is derived from the standard theory on expletives: Italian would be like English if null expletives did not allow a wider range of I-subjects. Suppose we try to simplify the distribution in (16) by tentatively assuming the following generalization:



- (17) I-subjects are [-anaphoric] in pro-drop languages and [+anaphoric] in non-pro-drop languages.

What are the consequences of this simplification? The new picture that emerges differs only in three respects from the table of values in (16):

- (18) a. Overt anaphors are possible I-subjects in Non-pro-drop languages.  
b. Anaphors are not possible I-subjects in pro-drop languages.  
c. Null pronominals are possible I-subjects in pro-drop languages.

Is there any evidence for these predictions? Let us start with prediction (18a). Consider a sentence like (19):

- (19) He has done it himself

We could take what is traditionally called emphatic anaphors as an instance of I-subject overt anaphor. Emphatic anaphors have been traditionally considered non-Arguments. But in fact, constructions such as (19) share some properties with inverted subjects in Italian. (19) has an interpretation similar to the Italian sentence:

- (20) L'ha fatto lui  
It-has done he  
'HE has done it'

in that both *himself* and *lui* have a focus interpretation. On the other hand, both occur in a position that can be roughly characterized as sentence-final.<sup>6</sup> It is quite possible that emphatic anaphors are not actually argumental, but let us suppose they are for the moment.

Now let us consider (18b). The prediction is that anaphoric I-subjects are not possible in Italian. This prediction is also apparently fulfilled for overt anaphors:

- (21) \*L'ha fatto *se stesso*  
 It-has done *se stesso*  
 'He has done it himself'

Is the contrast (19)/(21) really significant? According to (17), this contrast should generalize to a contrast between pro-drop/non-pro-drop languages. The prediction is that non-pro-drop languages will have emphatic anaphors, while pro-drop languages will not: instead, they have emphatic pronominals. As far as I know, this prediction is borne out, although some qualifications will be required. Concerning pro-drop languages, I do not know of any pro-drop language having emphatic anaphors:<sup>7</sup>

- (22) Peter had this work done by a lawyer, but...
- |    |  |           |
|----|--|-----------|
| a) | Gianni l'ha fatto <i>lui (stesso)</i> / * <i>se stesso</i> | (Italian) |
|    | G. it-has done he (self) / se self                         |           |
| b) | Juan lo ha hecho <i>él (mismo)</i> / * <i>si mismo</i>     | (Spanish) |
|    | J. it-has done he (self) / se self                         |           |
| c) | en Joan l'ha fet <i>ell (mateix)</i> / * <i>si mateix</i>  | (Catalan) |
|    | the J. it-has done he (self) / se self                     |           |
| d) | o janis to kani <i>o idjos</i> / * <i>o eafios tu</i>      | (Greek)   |
|    | the J. it did the he-self / the self of his                |           |

In all the above examples, the reflexive forms are unacceptable as emphatic I-subjects. The acceptable emphatic I-subjects in (22) are possible in contexts where they are not bound (preverbal subjects, dislocated positions, complement positions).<sup>8</sup> I give examples from Catalan to show that the *stesso / mismo / mateix* element does not turn the preceding pronoun

into any kind of anaphor, but simply into an emphatic pronoun (I give some possible context in the translations only to suggest what *stesso*-emphasis adds to the meaning):

- (23) a. *Ell mateix* no ho farà  
He stesso not it will-do  
'He (himself) will not do it' (-> His lawyer will)
- b. *A ell mateix*, no l'he vist  
To him mateix not him-have-I seen  
'Him (himself) I haven't seen' (-> I saw his lawyer)
- c. No he parlat amb *ell mateix*  
Not have-I spoken with him stesso  
'I haven't spoken to him (himself)' (-> but actually to his wife)

On the other hand, non-pro-drop languages should have emphatic anaphors. Let us consider the following examples:

- (24) Peter had this work done by a lawyer, but...
- a. John did it *himself* (English)
- b. Hans hat es *selbst* getan (German)<sup>9</sup>  
H. has it self done
- c. Hans har gjort det *selv* (Danish)<sup>10</sup>  
H. has done it self
- d. Jean l'a fait *lui (même)* (French)  
J. it-has done he (self)

The French example seems to constitute a counterexample, since the emphatic element looks like a pronominal. But French strong pronominals can function as anaphors, as is clear from the following example:

- (25) Jean parle de *lui* (*même*)  
       J. speaks about *lui* (*même*)  
       'J. speaks about himself'

On the other hand, the emphatic I-subject for French impersonal subject *on* 'one' is *soi même*, which is the anaphoric element for this subject:

- (26) a. *On* a parlé de *soi même*  
           *On* has spoken about *soi même*  
           'One has spoken about oneself'  
       b. *On* l'a fait *soi même*  
           *On* it has done *soi même*  
           'One has done it oneself'

Now, let us consider German and Danish cases. The emphatic I-subject (*selbst/selv*) is not actually the anaphoric element in these languages, but rather the second element of the compound anaphors these languages use: *sich selbst* (German), *ham /sig selv* (Danish). I think, however, that the generalization in (17) can be maintained for these cases. Let us see how.

The German and Danish emphatic I-subjects, and even the English ones, are likely to be floating elements, in that they can occur as adjoined to an overt DP:

- (27) a. Hans selbst / er selbst  
       b. Hans selv  
       c. John himself/ he himself

with a uniform interpretation in all three cases.

This suggests that raising from the I-subject position to Spec of AGR can leave the emphatic element floating. So the structure of (28a) would be (28b) (and the same could be claimed for the other two languages):

- (28) a. John has done it himself  
 b. [AGRP John<sub>i</sub> [AGR' has done it [DP t<sub>i</sub> himself] ]]<sup>11</sup>

Thus, it is likely that our initial idea that English has overt anaphoric I-subjects may be false: a null anaphor is always involved. This fact, however, does not falsify the generalization (17), which predicts that I-subjects for non-pro-drop languages have to be anaphoric: in those languages, non null I-subjects may be anaphoric either as overt anaphors, or as null anaphors with a floating emphatic element. French is likely to display the former possibility for anaphoric forms such as *soi (même)*, and *lui*, since these forms are not adjoinable to a DP as they are in English, Danish or German ( \**Jean lui* 'Jean himself', \**on soi (même)* 'one oneself', Cf. (27)). In West Flemish,<sup>12</sup> the claim that the emphatic element is a floating one, and not a full anaphor by itself, is even more motivated than in English or German, because this element (*zelve*) is not used in reflexive constructions (where the reflexive element is *zen eigen* 'his own' or a weak pronominal). Like in German, *zelve* is an emphasizer that can be adjoined to DP:

- (29) a. da *Jan zelve* t-eten gisteren nie gekookt eet  
 that *J. zelve* the food yesterday not cooked has  
 'that Jan himself has cooked the meal yesterday'  
 b. da *Jan* t-eten gisteren nie *zelve* gekookt eet

\* \* \*

(17) predicts, on the other hand, that languages of the Italian type do not allow null anaphors (NP-traces) as I-subjects, so they will not allow floating emphatic elements, if floating is a

result of movement.<sup>13</sup> So, while English allows both (30a) and (30b), Catalan (which has emphatic elements adjoined to DP's) only allows (30c), not (30d):

- (30) a. *John himself* will do it  
 b. *John* will do it *himself*  
 c. *En Joan mateix* ho farà / Ho farà *en Joan mateix*  
     The J. himself it-will-do/ It-will-do the J. himself  
     'John himself will do it'  
 d. \**En Joan* ho farà *mateix*

Similar facts hold for all the pro-drop languages considered. So, to summarize, non pro-drop languages allow, as I-subject, either an overt anaphor or a floating empathic element cooccurring with an empty anaphor. Pro-drop languages allow neither, because they do not allow anaphoric I-subjects. The conclusion is, instead, that null I-subjects in pro-drop are pronominal, a controversial conclusion, to which I return later.

In the next section we will argue for a theory that derives BG and, at the same time, accounts for the Binding Theory facts presented in this section.

### 3. An Alternative Hypothesis on AGR and I-subjects

#### 3.1. A Reformulation of the EPP

The hypothesis that I will present has very much in common with Borer (1986)'s theory of I-subjects, but it is more restrictive in the way AGR (INFL in Borer's terms) is coindexed with a I-subject. In all this section we will be abstracting away from expletive/indefinite constructions, which we deal with in the next section.

Let us assume the following principle:

- (31) At D-structure, AGR has to coindex with the most prominent DP or CP Argument in its c-command domain.<sup>14</sup>

Let's call this DP/CP the I-subject, as in the preceding section. Let us assume, for the moment, that arguments coindexed with AGR have to end up receiving Nominative (and/or Partitive). (31) predicts which is the argument that will be picked up by AGR on purely structural grounds, given some assumptions:

- in a transitive or unergative structure, AGR will always pick up the external argument: let us assume it is generated as the highest DP (or CP) in VP (in Koopman-Sportiche's internal-subject hypothesis it would be VP<sup>Max</sup>).

- in an unaccusative structure, AGR will pick up the object DP,<sup>15</sup> since it is the closest DP in its scope.

- in a copulative structure, AGR will pick up the subject of the small clause.

- in a raising structure, the closest DP or CP will be internal to the infinitival clause, since raising verbs have no DP/CP argument themselves, assuming the infinitival complement is not CP but IP, as has been traditionally assumed.

The most difficult case is passives, if we want to claim that the implicit Argument is structurally present. If we adopt the internal-subject hypothesis, an appealing possibility is that the implicit Argument occupies this basic position in the form of an empty category.<sup>16</sup> If this is the case, it will be closer to AGR than the object. For the present theory to work, several tacks may be taken:

- to give up the idea that implicit argument is projected as a DP.
- to work out the idea that the implicit argument, even if projected as a DP, is 'invisible' for AGR-coindexing.

I will not elaborate any of these alternatives. I think that, even if passives are potentially problematic for this account, it is worthwhile to try to solve the problems they raise if the result is a simple view of the way the subject of a sentence is chosen.

A piece of support for the above hypothesis is the fact that, in English, when we have two objects, it is the first object which is picked in a passive. We can assume, with Larson (1988), that the first object is higher than the second, the evidence being that there is asymmetrical c-command from the first to the second.

The general idea is, then, that the Argument becoming the I-subject is always the most prominent DP or DP Argument in the c-command domain of AGR. In other words, Burzio's Generalization is definable on purely structural terms, without making reference to theta-theory: the fact that the presence of a (projected/'visible') external theta-role is relevant is due to the independently motivated fact that the external argument is projected in a higher position.

(31) expresses the idea that it is not DP's that are forced to move to Spec of AGR to get Case, but rather AGR that is forced to pick up a DP to coindex with it. The implicit idea, up to now, is that I-subjects have to end up being Nominative. We will elaborate on this issue later. If we assume, for the moment, that Accusative assignment is optional, then BG is derived from Case theory: if the I-subject is forced to be Nominative, an object that becomes an I-subject will not be able to receive Accusative, independently of whether the Accusative is available or not.

(31) is, on the other hand, an alternative characterization of the EPP, in that it states that AGR is always coindexed with some I-subject. In the next paragraph we will qualify this generalization.



3.1.1. *A Parameter.* The condition in (31), as it stands, requires that AGR must be coindexed with some DP/CP Argument. This means that there must be one available. Otherwise, the requirement in (31) would not be fulfilled, and the output sentence would be ungrammatical. Suppose, though, that (31) is parametrized as in (32), where the two parameter values are absence vs. presence of the parenthesized part:

- (32) At D-structure, AGR has to coindex with the most prominent DP or CP Argument in its c-command domain (*if there is one*).

Suppose that including the parenthesized part is the option for languages like German (as opposed to English and Romance languages). The prediction is that, in German, AGR will be coindexed with some DP/CP Argument only if there is one available. I think there are two cases in German where AGR is not coindexed with an Argument. One is impersonal passives, as in (33). The other is sentences containing verbs like *schwindeln* 'to feel dizzy' or *grauen* 'to be afraid', in which AGR is not coindexed with any Argument ((34): the examples are taken from Cardinaletti (1990)):

- (33) dass gestern getanzt wurde  
that yesterday danced was
- (34) a) dass (es) mir schwindelt  
that (it) me-DAT is-dizzy  
'that I feel dizzy'
- b) dass (es) mir davor graut  
that (it) me-DAT of-it fears  
'that I am afraid of it'

Suppose that in both cases no DP is available for AGR to coindex with:

- in the impersonal passive case, because the Agent argument becomes inaccessible in passives, for some of the reasons we considered above;

- in the other case, because these verbs do not subcategorize for any DP Argument, if we assume that Dative is not a DP, but rather a PP for the present purposes.<sup>17</sup>

Cardinaletti (1990) assumes that the kind of verbs in (34) involve a quasi-Argument. I think this assumption is problematic: we should expect that quasi-arguments are the manifestation of some semantic property of a class of verbs (weather verbs), and not a free option for other classes of verbs. So, with weather verbs the quasi-argument roughly represents some atmospheric causation argument. No such causation can be understood in the case of the verbs in (34). Since quasi-arguments fall under the poverty-of-stimulus learning problem, it is reasonable to assume that they cannot vary from language to language, but rather that they are projected because of the semantics of the verb.

The present account, based on parameter (32), gives a unitary explanation for the existence of impersonal passives and the class of verbs in (34) in the same language: languages lacking impersonal passives do not have verbs of this kind.<sup>18</sup>

### 3.2. *AGR-identifiers*

For languages like English, the apparent situation is that I-subjects actually move to the Spec of AGR. I will contend that this is not necessarily the case for all languages. In what follows, a theory will be presented predicting why filling Spec of AGR is sometimes obligatory and sometimes not.

The idea I want to exploit is that (subject) AGR has to be 'rich' in all languages,<sup>19</sup> in the sense that it has to be able to display a complete range of phi-features: if AGR<sup>0</sup> is not rich itself, *then it is Spec of AGR that has to provide richness in features*. I think this idea is a good basis for accounting for the fact that, diachronically, subjects in non-pro-drop languages tend to end up

being AGR<sup>o</sup>-clitics and, eventually, become part of the AGR<sup>o</sup> morphology: this is the standard explanation for Northern Italian dialects' evolution. If Spec of AGR is the element providing phi-features in non-pro-drop languages, it is natural enough that Spec-of-AGR ends up being reanalyzed as an AGR<sup>o</sup> affix.

To implement this idea, let's assume the principles (35a) and (35b) and the parameter (35c):

- (35) a. AGR must have an AGR-identifier.  
 b. X can be an AGR-identifier iff X is rich in phi-features (number and person).<sup>20</sup>  
 c. AGR<sup>o</sup>/Spec of AGR is the AGR-identifier of AGR.

Suppose when a language has a rich AGR<sup>o</sup> morphology, the first option in (35c), which would be the unmarked one, is taken. This would be the case in pro-drop languages. When AGR<sup>o</sup> is morphologically poor, the second option of parameter (35c) has to be taken. Suppose we assume that:

- (36) Spec of AGR is rich iff it is filled.<sup>21</sup>

This implies that, in English, some DP (or CP) must appear in Spec of AGR. This is indeed the apparent situation in non-null-subject languages: they always show a DP (or CP) in Spec of AGR.

In some sense, then, English AGR is equally rich as Italian AGR, the difference being that phi-features are placed in the specifier and not in the head. This fact, however, will trigger an important array of differences concerning the distribution of subjects. Specifically, from the above assumptions, we want to derive the generalization in (17), repeated here as (37):

- (37) I-subjects are [-anaphoric] in pro-drop languages and [+anaphoric] in non-pro-drop languages.

Suppose the Specifier of AGR counts as an A-position for BT, and that in English AGRP is the Binding Category for the I-subject. In this language, Spec of AGR always binds the I-subject as a consequence of choosing the Spec-of-AGR option in (35c): the I-subject is coindexed with AGR and, since AGR<sup>0</sup> agrees, in the unmarked case, with its Specifier, the Specifier binds the I-subject. Under the BT principles, this predicts that the I-subject can only be anaphoric, as we have assumed above.

On the other hand, we want to derive the fact that Italian I-subjects are [-anaphoric]. This result can be achieved if, in pro-drop languages:

- (38) a. Spec of AGR need not be obligatorily filled, in order to allow for R-expressions to occur as I-subjects.
- b. If it is filled, it is outside the Binding Category for the I-subject, so that the I-subject can be pronominal but not anaphoric.

(38a) can be seen as a consequence of the fact that Spec of AGR (and Specifiers in general) is, in principle, optionally filled. It will be obligatorily filled only if it is an AGR-identifier, which is not the case for pro-drop languages.

To derive (38b), we will assume the following definition of Binding Category (BC):

- (39) A is Binding Category for B iff A is the minimal functional maximal projection containing B, a governor of B and the Case-marked position from which B gets Case.

In section 6, we are going to contend that in pro-drop languages, the I-subject itself is a Case-marked position, while in non-pro-drop languages, it is Spec of AGR that is Case-marked and transmits its Case to the I-subject. So, in non pro-drop languages, AGRP is the BC for the I-subject, while in pro-drop languages, it is the first FC maximal projection containing the I-subject, namely TP.<sup>22</sup>

So, if Spec of AGR is outside the BC of the I-subject, the I-subject has no antecedent in its BC and has to be [-anaphoric], i.e.:

- a full NP or pronominal (subject inversion).
- a variable (which accounts for the absence of that-t effects).
- A *pro*, which is licensed by the AGR identifier, which recovers its content.

In non-pro-drop languages, the AGR-identifier is in principle able to license a *pro*, were it not for the fact that it binds the empty category within the BC and forces the empty category to become an empty anaphor.

In pro-drop languages, when the I-subject is *pro*, it is reasonable that it is identified by a local governor. In section 5, we are going to argue that, for Case assignment, AGR in pro-drop languages governs the I-subject in some indirect way. So, we will keep Rizzi (1986)'s hypothesis that *pro* is identified in features by a governor from which it receives Case.

#### **4. Indefinite I-subjects**

So far, the predictions are that postverbal subjects can be:

- [-anaphoric] in pro-drop languages.
- [+anaphoric] in non pro-drop languages.

Both kinds of languages, however, freely admit indefinite I-subjects in postverbal object position:

- (40) a. There came a man  
       b. Viene un uomo  
           Comes a man

Within the theory sketched above, the question is: why are indefinite I-subjects able to occur postverbally without violating BT in English?

A solution to this problem can be formulated in the following terms. Let us assume that:

- (41) a. partitives do not have person features.<sup>23</sup>  
       b. partitives may/may not have (grammatical) number features.  
       c. AGR and Spec of AGR need not agree in number features when person features are not present.

The parameter in (41b) is intended to account for the variation languages seem to exhibit with respect to agreement with an indefinite:

- (42) Agreement in number:
- |    |   |                    |
|----|---|--------------------|
| a. | There <i>are</i> children in the garden | (Standard English) |
| b. | Es <i>sind</i> kinder in den garten     | (German)           |
|    | It are children in the garden           |                    |
| c. | Ci <i>sono</i> bambini nel giardino     | (Italian)          |
|    | there-are children in-the garden        |                    |
| d. | <i>Arriven</i> turistes                 | (Standard Catalan) |
|    | Arrive tourists                         |                    |

- (43) No agreement
- |    |                                     |          |
|----|-------------------------------------|----------|
| a. | Il y <i>a</i> des enfants au jardin | (French) |
|    | it there-has children in-the garden |          |

- (43) b. *Arriva* turistes (North-Western Catalan)<sup>24</sup>  
           Arrives tourists  
       c. There's children in the garden (Coll. English)

(41a) together with (41c) ensures that the AGR-identifier in non-pro-drop languages need not end up binding the I-subject when the latter is indefinite (if binding entails sharing person or -at least- number features), so that indefinite constructions are allowed with an inverted subject.

In the present account, it is not clear why some non-pro-drop languages allow null expletives (or even null quasi-arguments). Perhaps the residual character of AGR-identifiers in indefinite I-subject constructions, where the AGR-identifier does not display any features, allows for it to be dropped.

## 5. Case Theory

Within the present theory, pro-drop languages do not require raising of the I-subject to Spec of AGR to receive Case. In these languages, Nominative should be available for the I-subject. This is not likely to be the case for non-pro-drop languages, where it seems that case is assigned to Spec of AGR, specially in the light of ECM constructions, which show that Case assignment to Spec of AGR is sensitive to the syntactic configuration. Suppose, however, that we unify both cases (pro-drop and non pro-drop) under the following principles:

- (44) Finite AGR<sup>o</sup> can optionally assign Nominative Case to Spec of AGR.  
 (45) The I-subject must receive Case from its AGR-identifier under government, unless it is inherently Case marked.

The notion of 'receiving Case from' is intended to cover two notions:

- Case assignment.
- Case transmission along a Chain (assuming that Spec of AGR, when filled, forms a Chain with the I-subject in non partitive constructions).

For languages such as Italian, the I-subject will receive Case from AGR<sup>o</sup>. In English, the I-subject will receive Case from Spec of AGR, i.e., the DP in Spec of AGR will transmit its Case to its trace. So, the DP in Spec of AGR has to receive Case itself. In a finite sentence, it receives Nominative Case from AGR. In an infinitival sentence, it receives Accusative (in ECM constructions) or it is PRO, which has an intrinsic Case.

In Italian, AGR<sup>o</sup> has to assign Nominative Case to its I-subject under government. If AGR is the highest functional category, this means that AGR does not govern the I-subject. Suppose, however, we adopt the following convention:

(46) If AGR<sup>o</sup> combines with T by incorporation, it has the same governing capacities as T.

(46) makes the prediction that T to AGR raising is obligatory in languages such as Italian, since this is the only way AGR can govern the I-subject. We will take advantage of this fact to account for V-raising in infinitives in pro-drop languages. (46) also predicts that the I-subject has to be in the governing domain of T. So, if the I-subject is not the external Argument, it will have to raise to a position where it is governed by T. This explains why (non-indefinite) I-subjects in Italian appear to have a uniform distribution (roughly, VP final) independently of whether they are underlying objects or not. I will not try to ascertain what this position is. As for indefinite I-subjects, we will assume, with Belletti, that they are inherently Case marked with partitive. The 'unless' clause in (45) is intended to account for why they do not need Nominative and can appear in object position.



## 6. Infinitive Constructions

### 6.1. Long Verb Movement in *pro-drop* Infinitives

Pollock (1989) shows that verb movement (for lexical verbs) in infinitives is shorter than in (French) finite sentences:

- (47) a. Jean ne pense *pas toujours* au futur  
J. *ne* thinks *pas* always of-the future  
'Jean does not always think of the future'
- b. Ne *pas (toujours)* penser (*toujours*) au futur...  
*ne pas* (always) to-think (always) of-the future.  
'not to always think of the future'
- c. *Not* to *always* think of the future...

Pollock's theory derives this fact from the 'weak' or 'poor' character of Tense in non-finite sentences. Since all Romance infinitives show no Tense morphology on the infinitival verb, the prediction should be that infinitives in these languages do not allow long verb movement, contrary to fact: in Italian, Spanish and Catalan, infinitival verb movement is apparently as long as finite verb movement.<sup>25</sup>

- (48) a. Non ama *più* Maria (Italian)  
Not loves *anymore* M.  
'He doesn't love M. anymore'
- b. Non (*\*più*) amare *più* Maria...  
Not to-love *anymore* M.  
'Not to love M. anymore...'
- c. No diu *mai* la veritat (Catalan)  
Not tells *never* the truth  
'He never tells the truth'

- (48) d. No (\**mai*) dir *mai* la veritat...  
 Not to-tell *never* the truth  
 'To never tell the truth...'
- e. No està *nunca* cansado (Spanish)  
 Not is *never* tired  
 'He's never tired'
- f. No (\**nunca*) estar *nunca* cansado...  
 Not to-be *never* tired  
 'To never be tired...'

Thus, there seems to be a correlation between pro-drop and the possibility for the infinitival verb to raise to a high functional category, AGR in Belletti (1990)'s theory, which we adopt. Another fact, which is likely to be parasitic on the former, is the possibility of clitic climbing. Kayne (1989) assumes that this is due to the strong character of INFL in pro-drop languages.

The problem is how to express the correlation between the strong character of AGR in finite clauses and the purported strong character of AGR in non-finite clauses. In infinitival clauses, AGR is not apparently strong in Italian or Spanish, as far as morphology can tell us. To simply stipulate that infinitival AGR is strong because finite AGR in the same language is strong appears to be a mere stipulation. What I want to propose is the idea that what extends from finite to infinitival clauses is a parameter value.

### 6.2. The AGR-identifier of Infinitives

Let us assume that, in the unmarked case, the parameter in (35c), repeated here as (49), applies uniformly to finite and infinitival sentences:

- (49)  $\text{AGR}^0/\text{Spec}$  of AGR is the AGR-identifier of AGR.

This parameter would be set on the basis of finite clauses, but its value would be extended to infinitival ones in the unmarked case.<sup>26</sup> Let us assume, in addition, that infinitival constructions are minimized representations: either AGR<sup>o</sup> or Spec of AGR will be fully 'active' syntactic positions, but not both, the choice being determined, in the unmarked case, by setting parameter (49): in pro-drop languages AGR<sup>o</sup> will be active, while Spec of AGR will be empty. In non-pro-drop languages, Spec of AGR will be projected, while AGR<sup>o</sup> will be inert (i.e., unable to govern and assign Nominative).

That the AGR identifier must be uniform across sentence-types (finite/infinitival) is a necessary assumption for the theory above to work. The reason is that the [ $\pm$ anaphoric] character of I-subjects does not seem to vary from finite to infinitival clauses. So, for instance, emphatic pronominals/anaphors behave the same as in finite sentences:

- (50) a. Gli dispiace dover farlo *lui (stesso)*  
           To-him displeases to-have-to do-it he (self)  
           'He dislikes to have to do it himself'  
       b. It bothers him to have to do it *himself*

As for R-expressions, they are not allowed as I-subjects in pro-drop controlled infinitives, but this follows from the assumption that control is some form of binding: R-expressions cannot be bound.

6.2.1. *Control.* We will assume the following characterization of control theory:

- (51) In the unmarked case, infinitival constructions contain a controlled AGR-identifier.

Let us see how this works for Italian and English. Consider the D-structure (52):

- (52) a. John wants [AGRP AGR<sup>o</sup> to come DP ]  
 b. Gianni vuole [AGRP AGR<sup>o</sup> venire DP ]  
 G. wants to-come

In both cases, AGR is coindexed with the DP. In the English construction, it is Spec of AGR which is controlled. Since the infinitival AGR<sup>o</sup> does not assign Nominative to its specifier, because it is inert, only PRO can end up in this position. Since AGR<sup>o</sup> is inert, let us assume it does not get any features, not even by agreeing with its controlled specifier, and therefore V raising to AGR is not allowed.

In the Italian construction, on the other hand, it is AGR<sup>o</sup> itself which is controlled. This implies that:

- AGR<sup>o</sup> obtains person features by control, and becomes "rich" in Pollock's sense.
- so V raising to AGR is allowed.
- AGR<sup>o</sup> has to assign Nominative by combining with T.
- so T has to raise to AGR.
- as in finite sentences, the I-subject will be [-anaphoric]. It will not be an R-expression, because it would be bound by the controller:

- (53) Gianni vuole [ venire lui/*pro* ]  
 G. wants to come he/*pro*

**6.2.2. Raising Constructions.** In section 1 we have assumed that raising constructions are characterized as involving a non CP infinitival: this is why AGR in the upper clause can pick up an I-subject internal to the infinitive, this I-subject being the first DP/CP it c-commands. Suppose, nevertheless, that the infinitival AGR has to abide by one of the options in (49). Consider the D-structures in (54):

- (54) a. Seem [<sub>AGRP</sub> AGR<sup>o</sup> to have come DP ]  
       b. Sembra [<sub>AGRP</sub> AGR<sup>o</sup> esser venuto DP ]  
           Seems           to-be come

In both cases, both the main clause AGR and the embedded AGR coindex with the DP in the embedded clause, since it is the first DP or CP in the c-command domain of both. This means that the two AGR's end up coindexed. For English, both Spec's of AGR have to be filled by a DP to render both specifiers AGR-identifiers. Given the definition of BC in (39), the main clause becomes the BC for the I-subject in the infinitive, so that both the I-subject in the infinitive and the infinitival Spec of AGR can only be [+anaphoric]. The I-subject in the infinitive shows the same anaphoric behavior as in main sentences:

- (55) John seems [<sub>AGRP</sub> to have done it (himself) ]

As for the Spec of AGR, its anaphoric behavior cannot be proved by the presence of an overt anaphor or floating *himself*.

- (56) John seems [<sub>AGRP</sub> (?\*himself) to have done it ]

This fact should be due to some restrictions on the distribution of emphatic elements. I'm not able to say anything interesting about this issue, except that emphatic subjects seem to be restricted to some positions.

Now consider Italian. In this case, it is AGR<sup>o</sup> which has to become an AGR-identifier and is therefore active in the infinitive. Since the infinitival AGR is coindexed with the main AGR, AGR<sup>o</sup> may inherit person features from the upper AGR, and it is allowed to Case-mark the I-subject in the same way as in main clauses, provided V-to-T-to-AGR raising takes place in the infinitive:

(57) *Sembra [ haverlo fatto pro /lui/Gianni ]*

*Seems to-have-it done pro /he /G.*

6.2.3. *ECM and 'for' Constructions.* In these constructions, Spec of AGR receives Case from an upper governor. So, they are essentially the same as controlled constructions, except for the fact that Spec of AGR is Case-marked.

The present theory predicts that ECM and 'for' infinitives should not be possible in pro-drop languages, since in these languages Spec of AGR plays no role in infinitives. Actually, this claim may be too strong: classical Latin, for instance, was a null subject having ECM. The above approach to infinitives is, anyway, only a tentative solution for long verb movement in Romance infinitives: if it is on the right track at all, it might nevertheless turn out to be valid only as the unmarked option.

## 7. Conclusions and Open Questions

The present paper presents a tentative account for:

- a descriptive generalization concerning the status of emphatic I-subjects.
- the correlation null subjects/subject inversion/absence of that-t effects, all of which are derived from BT.
- Burzio's Generalization.
- long verb raising in pro-drop languages.

None of the aspects of the theory has been developed in depth, as the aim of the paper is not to prove it is superior to the standard one, but only to suggest that it is worth exploring.

There is, among others, an important question that remains unanswered in the above theory: what is the status of preverbal subjects in pro-drop languages such as Italian? If they are not required as AGR-identifiers, how are they licensed?

A possible approach would be that they have essentially the same status as left dislocated DP's. The classical test for dislocation (dislocated elements cannot be quantified) does not give clear-cut results: preverbal subjects in Romance pro-drop languages can be quantified, but to a lesser extent than preverbal subjects in English or French, as the following examples from Italian show (where the acceptability judgements are given for stressless subjects, to ensure that they are not the result of Focus fronting):

- (58) a. ?\*Niente è successo  
Nothing has happened  
b. ?\*Pocchi studenti sono arrivati  
Few students have arrived

The general pattern is that in languages having subject inversion, quantified subjects are preferred in postverbal position, although preverbal quantified subjects are possible with some restrictions, whose nature is unclear. So I leave the question open.

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## Notes

<sup>1</sup> There are languages that have an Ergative/Absolutive Case system (Ergative languages), instead of the Nominative/Accusative system. If we were to assimilate Ergative with Nominative and Absolutive with Accusative, these languages would present systematic

counterexamples to Burzio's Generalization. If this were the case, then BG would have to be derived from some [-Ergative] parameter value. In any case, it seems that there are no mixed languages, i.e., languages being like English in the Case system, but with some scattered counterexamples to BG.

<sup>2</sup> In fact, BG in one direction (External theta-role → Accusative) was not difficult to derive at the time Burzio formulated it: if there is an external theta-role, the object (if there is one) has no other Case option but Accusative, because the option of raising to (NP,S) is not available, this position being occupied by the external argument.

In the present framework, if we assume the internal subject hypothesis, some explanation is required for the fact that (in an active sentence) it is the external Argument that raises to Spec of INFL, while in a passive it is the internal Argument.

<sup>3</sup> We could alternatively define (2) as:

- (i) Spec of AGR has to head a CHAIN

were it not for the case of infinitives in raising constructions, where Spec of AGR in the infinitive does not head the (maximal) CHAIN. (i) can work if we are able to define the sub-CHAIN headed by Spec of AGR as a CHAIN in an interesting way. If we simply state that any sub-CHAIN is a CHAIN, the notion of 'heading a CHAIN' is not different from 'being member of a CHAIN'.

<sup>4</sup> (6) could perhaps be derived from some principle in a theory on the economy of derivation, essentially stating that CHAINS must be as short as possible. But it is not clear, within the present account, how to exclude the cases in (7) below.

<sup>5</sup> The theory of LF adjunction, Chomsky argues, would be a solution for the interpretation problem concerning the relative scope between Negation and the indefinite. Chomsky (1988)



contends that if the Argument adjoins to the expletive as in (ii) for a sentence like (i), there is no scope relation between the negative particle and the quantifier *many*, so that *many* can be assumed to have narrow scope, as desired:

- (i) There *aren't many* linguistics students here
- (ii) [<sub>NP</sub> there [ *many* l. students ]] *aren't* t here

It is a mystery why *many* has to have narrow scope w.r.t. negation when there is no structural scope relation between them. In addition, it is doubtful that this is so in cases where there is no scope relation:

- (iii) Pictures of *many* students *aren't* here

For some speakers (iii) can not be interpreted with *many* having narrow scope, while the narrow scope interpretation in (i) is straightforward and exclusive.

<sup>6</sup> American speakers seem to allow emphatic anaphors in non-final position (thanks to B. Schwartz and E. Pierce for pointing this out to me):

- (i) John has himself done it.

while British speakers seem not to allow this word order.

Similarly, some Romance languages (Spanish, Romanian) allow inverted subjects in non sentence final position (the order being VSO), while others do not (Italian, Catalan). Since I am going to assimilate emphatic anaphors to inverted subjects, I think that this kind of variation is of the same nature: some languages allow I-subjects only in sentence-final position and others allow them in pre-VP position. I will not provide any explanation for this question.

<sup>7</sup> Hebrew allows neither emphatic anaphors nor emphatic pronominals as I-subjects. In fact, this language does not allow pronominals as inverted subjects (thanks to Tali Saloni for the data and comments). Hungarian does not either provide clear examples relevant for the theory, perhaps because emphatic I-subjects, as focus elements, should occupy the obligatory focus position in this language, which is preverbal. I think that a more detailed study is necessary to extend the present theory to these languages.

<sup>8</sup> Italian seems to allow *stesso* emphatic pronominals in non-final position (thanks to L. Rizzi for this remark), i.e., in a position where inverted subjects are not possible:

- (i) Gianni ha lui stesso fatto questo  
G. has he self done this

This seems to suggest that *stesso* emphatic pronominals are not fully assimilable to inverted subjects. We can still assume, however, that emphatic pronominals in final position occupy the same position as inverted subjects, since they cannot cooccur:

- (ii) \*Lo ha fatto Gianni lui stesso  
It-has done G. he self

<sup>9</sup> Dutch has essentially the same behavior as German (thanks to L. Haegeman for this example and others I discuss below):

- (i) Ik heb het eten nie zelf gekookt  
I have the meal not self cooked  
'I haven't cooked the meal myself'

<sup>10</sup> Thanks to Sten Vikner for the data about Danish and his interesting comments. Danish allows emphatic *selv* not only in final position, but also in pre-VP position, as the following example shows:

- (i) ...at Hans måske selv har gjort det  
that H. maybe self has done it

As far as this position can be argued to be a low ('internal subject') position, this is not problematic.

<sup>11</sup> So (i) and (ii) differ in that in (i) *himself* has not been left floating, while in (ii) it has:

- (i) John himself has done it  
(ii) John has done it himself

The interpretation of (i) and (ii) is not the same (as S. Vikner pointed out to me). I think this interpretative difference should be derived from the focus character that can be associated with the sentence-final *himself*, which is lacking in (i).

<sup>12</sup> Thanks to L. Haegeman for the examples and the discussion. The emphatic element *zelve* in West Flemish appears not only in a low (VP) position (to the right of negation and preceding the participle), but in positions more to the left (thus higher). If it is a floating element, as we contend, and subject raising is not in one step, it would be possible for the floating element to be left stranded at any of the intermediate steps. I will not elaborate on this matter.

<sup>13</sup> What happens, then, with floating quantifiers in pro-drop languages? Within the present theory, I have to assume that they are not stranded by a moved preverbal subject. In fact, in many cases floating quantifiers do not form a possible constituent with the preverbal subject:

- (i) Els nois aniran *tots dos* a casa (Catalan)

The boys will-go *all two* to home

*Tots dos els nois* 'both the boys' is not a possible constituent, so if *tots dos* was left floating by movement, we would have to postulate an impossible constituent at D-structure. We can not solve the problem by postulating *regeneration* in van Riemsdijk (1987)'s sense: in some Catalan dialects, *tots dos* never forms a constituent with any DP overt material. Reasonably, regeneration can restore Determiners, but not the lexical part of the DP.

<sup>14</sup> It could be argued that DP's and CP's share some categorial feature: from a historical point of view, the complementizer often derives from a demonstrative Determiner.

<sup>15</sup> The reason why it does not pick-up the dative could be that:

- the dative is below the object (as in Larson-1988)).
- the dative is inherently a PP.

The second account seems the most reasonable for other prepositional arguments.

<sup>16</sup> In recent work in progress, Ian Roberts assumes the implicit argument is present as a *pro* in the subject internal position.

<sup>17</sup> Some of these verbs subcategorize for an Accusative:

- (i) dass (es) mich dürestet  
that (it) me-ACC is-thirsty

We have to assume that this is an inherent Accusative, and that subcategorized inherent Accusatives are not 'bare' DP's, so they are not visible for AGR. An alternative possibility

would be that AGR only coindexed with Caseless DP's at D-structure, so that inherently Case-marked DP's are not candidates to be coindexed with AGR. The problem with this approach is Partitive Case, if we assume, as we do, that partitive DP's are inherently Case-marked: they should not be available candidates for AGR to coindex with, contrary to fact.

<sup>18</sup> Italian has two verbs of that germanic type: *importare* 'concern' and *dispiacere* 'dislike' (thanks to L. Rizzi for this remark):

- (i) A me dispiace di questo  
To me dislikes of this
- (ii) A me importa di questo  
To me concerns of this

Perhaps they are a residue of an earlier period where Italian had impersonal passives.

French shows another case of a verb that allows AGR not to coindex with any argument:

- (iii) Il *faut* ces livres  
It need these books  
'These books are needed'

All these cases are, I think, quite restricted and we could assume that they do not belong to the core grammar, while in German they are much more well represented and, thus, belonging to the core grammar.

<sup>19</sup> Or in all languages having agreement processes: perhaps languages like Chinese could be characterized as completely agreementless, so that AGR is absent as a FC. This would not be the case for Scandinavian languages, which do not show any AGR morphology, but are languages with some agreement processes, such as agreement between antecedents and anaphors (unlike Chinese, where anaphors do not agree with their antecedents).

<sup>20</sup> I leave the question of what is 'richness' open. See Roberts (1991) for some generalizations about what is a rich paradigm.

<sup>21</sup> If we were to assume Fukui & Speas (1986)'s hypothesis, in which Specifiers are projected only when they are filled, we could practically dispense with this principle: if the AGR-identifier has to be present, then it has to be filled.

<sup>22</sup> Notice that for an object anaphor as in (i):

(i) John hates himself

the BC will be TP, and its binder will be the I-subject. In any internal subject theory, the local binder of an object anaphor is the internal subject, so this result is not problematic.

In the definition above, we stipulate that a BC has to be a Functional Category: otherwise, if VP is a maximal projection inside VPM<sub>ax</sub>, as in Koopman and Sportiche's hypothesis, the BC for the object would be VP, and the anaphor in (i) would be free in its BC.

<sup>23</sup> This is also assumed in Rigau (1991), where partitives are assumed to be empty Do's with a QP complement. My hypothesis could be implemented in this way. Rigau also assumes that Person Agreement and Number Agreement are different functional categories. I think this idea could be adopted within the present theory, but it would require some careful elaboration, for it is crucial for the present account to work that AGR<sup>o</sup> is coindexed with the I-subject, contrary to what Rigau assumes for partitive constructions.

<sup>24</sup> See Rigau (1991), where an explanation is provided for the contrast between languages showing verb number-agreement with the indefinite and languages with no such agreement.

<sup>25</sup> If not longer: perhaps enclisis in infinitives should be analyzed as extra verb movement (see Kayne (1990) for an implementation of this idea). See Belletti (1990) for the idea that elements like *più*, *mai*, etc. occupy a position similar to French *pas*, *plus* and other negative elements.

<sup>26</sup> Occitan appears to be a pro-drop language without long verb movement in infinitives: that is why we need the proviso "in the unmarked case". Occitan would be marked in not extending the finite value for this parameter to infinitival sentences.

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