

# THE COMPLEMENTARY DISTRIBUTION BETWEEN PRO AND LEXICAL SUBJECTS

Itziar San Martín

University of the Basque Country

## 1. Abstract<sup>1</sup>

*This paper presents an account of one of the problems regarding the distribution of controlled subjects: the complementary distribution between PRO and lexical DPs. The growing evidence showing that both types of subjects appear in configurations of regular Case suggests discarding the traditional idea that the distributional issue at hand is directly related to Case. In this paper, I spell out the traditional but vague idea that the T-Probe in Control is more defective than the T-Probe that licenses Lexical Subjects. Briefly, I suggest that T in Control is Partial in the sense that it lacks the [person] feature that is present in lexical subjects licensing.*

*The paper has 7 parts. It starts by deciding that the object of study in this paper is the null subject involved in genuine Control relations, namely those motivated by Exhaustive Control predicates rather than by Partial Control predicates. In Section 3 I review the problem of the distribution of PRO and I outline the main solutions that have been suggested in the literature. Section 4 gathers evidence that demonstrates that PRO receives regular Case. This suggests discarding the proposals outlined in the previous section as valid both on empirical and theoretical grounds. Section 5 starts to reveal the ingredients responsible for the complementary distribution of PRO and lexical subjects: the categorial status of the embedded clause. Specifically, I show that Control predicates take TPs and not CPs as has been standardly assumed. Section 6 presents the Basque infinitival paradigm in detail, which will be crucial to show that Control T is Partial in the sense that it lacks the [person] feature that is present in DP subject licensing. Finally, section 7 explains why PRO and lexical subjects are only compatible with Partial-T and Complete-T, respectively.*

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## 2. The object of Study

Within the general rubric of OC, not all predicates behave the same way as has traditionally been thought. A class of predicates allows for a looser coreferential relation between arguments than OC does. Martin (1996) and Landau (1999) provide explicit accounts of this fact. Landau calls this incomplete type of control Partial Control (henceforth PC), and concludes that OC comes in two varieties: Exhaustive Control (henceforth EC) and PC. The difference between the two is that PRO in EC environments must be strictly coreferential to the Controller. This is not the case with PC predicates, where the reference of PRO must include the controller but, at the same time, it may also refer to some salient entity in the discourse. The test to distinguish between EC and PC goes as follows: by including a collective predicate in the embedded clause, PRO is forced to be coreferential to more than one argument (usually the Controller and some salient entity in the discourse). EC predicates (e.g. *manage*) disallow this option (1), but PC predicates (e.g. *prefer*) are perfectly grammatical under these circumstances, as shown by (2):

- (1) \*John<sub>i</sub> managed [PRO<sub>i+</sub> to gather at 6].  
 (2) John<sub>i</sub> preferred [PRO<sub>i+</sub> to gather at 6].

San Martin (2004 & forthcoming) presents empirical evidence from various languages showing that the typical characteristics of control are only attested with EC predicates across languages. Thus, EC predicates invariably present two characteristics: the embedded controlled subject must be phonetically null and strictly coreferential to its controller. In contrast, PC predicates do not display these characteristics across languages. Often, the embedded subject may be disjoint in reference from the controller, a signal that control does not hold in such instances. In addition, the embedded subject must only be phonetically null in EC contexts whereas it may be lexical in PC contexts. These facts suggest that genuine control is exclusively induced by EC predicates. This is the reason why the investigation into the matter of the distribution of PRO presented in this paper focuses on Exhaustive Control contexts.

## 3. The distributional problem and the main proposals

Accounting for the distribution of PRO requires answering at least two distinct questions: first, that PRO and lexical subjects are in complementary distribution. Thus, PRO may only appear in the subject position of certain embedded clauses, never in matrix clauses (3-4). Second, that PRO may only appear in derived subject positions. In other words, with transitive (5) or ditransitive (6) predicates in the embedded clause, only the subject may be PRO. Note that the restriction is not related to the nature of the Theta Role that PRO saturates. Either Patients (internal Objects of unaccusative predicates) (7) or Agents (external subjects of unergative predicates) (8) qualify for being PRO. In this paper I will investigate into the first problem.<sup>2</sup>

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<sup>2</sup> The issue of why only subjects can only be controlled is addressed in San Martin (2004 & forthcoming).

- (3) John<sub>i</sub>/\*PRO tried [PRO<sub>i</sub>/\*John to escape].  
 (4) John said that [he/\*PRO bought a cake].  
 (5) \*John tried [PRO to kiss PRO].  
 (6) \*John tried [PRO to give PRO to PRO].  
 (7) John tried [to leave PRO].  
 (8) John tried [to PRO kiss her].

The traditional GB explanation for the problem of the complementary distribution between PRO and lexical subjects is provided by the Binding Module. Unlike other empty categories, the ambiguous feature composition of PRO as being both Anaphoric and Pronominal leaves PRO subject with contradictory requirements: it must be both bound and free in its Governing Category. This situation forces the Anti-Government Condition on PRO, the PRO Theorem, which amounts to saying that PRO does not have a Governing Category. Several immediate problems suggest themselves at this point.

First, although PRO might appear in two distinct environments, one being [+A] and the other [+P], there is no reason to believe that PRO has both features simultaneously.

Second, in this framework, PRO is only licensed in infinitival clauses of the CP type. Were the complement of the IP type, the matrix predicate would govern the embedded subject. In fact, this is the crucial difference between ECM and Control. Control involves a CP complement (9), whereas ECM involves an IP complement (10), so that in the latter, the matrix predicate may govern the NP in the embedded subject position. As Bošković (1997) argues, the *c*-selection mechanism in GB is stipulative. CPs or IPs are selected in order to accommodate the PRO-Theorem (i.e., PRO must be ungoverned) and the idea that Barriers prohibit raising an argument to the matrix clause.

- (9) John tried [<sub>CP</sub> [<sub>IP</sub> PRO to eat the cake]].  
 (10) John believes [<sub>IP</sub> Mary to be the smartest student].

Third, once we take seriously the Visibility Condition on  $\theta$  assignment at LF, an inconsistency emerges within the GB account of the distribution of PRO. Apart from clauses, PRO is the only element that being assigned no Case receives a  $\theta$  role. In other words, PRO is the only nominal element that breaks the Visibility Condition on Theta marking.

The latter problem led Chomsky and Lasnik (1993) to propose that PRO checks Null Case and that Null Case is part of the inventory of Structural Cases.<sup>3</sup> They argue that the parallel behavior between PRO and regular DPs in (11-12) with respect to the Freezing Effect (i.e. the prohibition of further A-Movement from Case marked positions) suggests that PRO is a regular argument in that it bears

<sup>3</sup> The idea that PRO receives Null Case is adopted by various authors such as Martin (1993 & 1996), Bošković (1995 & 1997) and Landau (1999), among others.

Structural Case. In other words, examples (11-12) show that PRO behaves like regular arguments with respect to the traditional observation (the ‘Case Uniqueness Condition on Chains’ in Chomsky 1981) that movement of a DP from a Case position results in ungrammaticality by violating Last Resort. Chomsky and Lasnik (1993) take this argument in favor of the idea that PRO is Case marked.

(11) \*I prefer for him<sub>i</sub> to seem to t<sub>i</sub> that he is clever.

(12) \*He prefers PRO<sub>i</sub> to seem to t<sub>i</sub> that he is clever.

A very different proposal was presented in O’Neil (1995) and Hornstein (1999, 2001), who accommodate Control to Raising. In other words, they suggest that Obligatory Control and Raising employ the same mechanism, namely movement from the embedded clause to the matrix clause. The reasons for this are mainly conceptual: Hornstein argues that the only theoretical distinction between Raising and Control, i.e., the Theta Criterion, is a Deep Structure vestige that should be reformulated into Minimalist terms. This is achieved by assuming that Theta roles are Features, and by allowing movement from Theta to Theta positions. Hence, the only difference between Raising and Control is that the former involves movement from a Theta to a non-Theta position and the latter from a Theta to a Theta position. The motivation for Movement is for traditional Case checking purposes. Only matrix T is able to assign Case to the raised DP. The two relevant departures of this Theory from the Null Case approach in Chomsky and Lasnik (1993) are that (i) embedded T is unable to assign Case to the embedded subject, i.e. there is no freezing of the subject in the embedded clause, and (ii) the Theta Criterion does not hold.

The debate on the correctness of each proposal has been vividly present in the Minimalist framework. There are two crucial aspects in which the proposals differ. First, the theoretically distinct assumptions concerning whether Theta Roles are Features or not. The evidence for Theta Roles being configurational<sup>4</sup> is somewhat vague, and in the absence of clear evidence, Hornstein opts for a maximally Minimalist proposal that subsumes Control under Movement, an independently necessary characteristic of natural languages. The consequence of assuming that Theta roles are Features changes the general picture proposed by Chomsky of how derivations proceed, and calls for a revision of other constructions that involve Theta Roles. It seems that further independent evidence suggesting the correctness of either theory of Control may provide support for either view of Theta Roles. Second, the two proposals differ on where they take the Freezing Effect for the embedded subject to take place. In the Movement approach, embedded T is unable to assign Case and the Freezing Effect arises in the matrix clause. The Case Theory of Control, on the other hand, assumes that embedded T assigns Case and freezes PRO within the embedded clause. The following section will provide evidence that, in fact, PRO receives Case, albeit regular Case rather than Null Case.

<sup>4</sup> The idea that Theta Roles are configurational was presented in Baker (1988) in the form of UTAH (Universal Theta Alignment Hypothesis) and then elaborated on in Hale and Keyser (1994). The idea is that the thematic configurations are identical in all languages, which presupposes a configurational organization of theta roles.

#### 4. PRO receives regular Case

This section shows that PRO appears in a configuration of regular Structural Case assignment. Under the standard assumption that Last Resort bans movement from Case to Case positions, this is empirical evidence against the Movement analysis of Control, which subsumes Control under Raising. In addition, the absence of evidence that PRO receives Null Case suggests that the Null Case-Theoretic approach is not adequate inasmuch the postulation of a special Structural Case (Null Case) is unnecessary from the Minimalist perspective.

##### 4.1. Basque Case System

The Case marking system in Basque provides evidence that PRO checks regular Case. After analyzing the Case marking system in this language, I will conclude that PRO participates in the Case system as other nominals do, and hence, that PRO receives regular structural Case. The section is organized as follows. First, I will present a brief description of Basque and its Case system, and I will note that Dative Case only arises in the presence two DPs, one marked Absolutive and the other Ergative. Next, I will present the Case Valuation system proposed in San Martín and Uriagereka (2002), which correctly captures the descriptive generalization stated above. Finally, data involving EC predicates suggest that PRO in Basque participates in the Structural Case marking system as other nominals do. From this, we must conclude that PRO checks regular structural Case in Basque.

Basque is an Ergabsolutive language. Unlike Nominative-Accusative languages, subjects are marked with distinct Case markings depending on the type of predicate involved. Transitive predicates involve the Ergative-Absolutive pattern and Intransitive predicates mark the single argument with Absolutive Case, the default Case marking. This asymmetry of Case marking on subjects is exemplified in (13-14), where (13) involves a transitive predicate, and (14) an unaccusative verb. (15) shows that Dative Case arises with ditransitive predicates.<sup>5</sup> Note that the Case marking on the arguments is reflected in the Auxiliary in Basque. In other words, the Auxiliary displays Case and person agreement with arguments that are marked with Case.

- (13) Jonek ogia erosi du.  
John-ERG bread-Det-ABS buy Aux (3ABS-3ERG)  
'John has bought bread'
- (14) Jon bihar etorriko da.  
John-ABS tomorrow come-Fut Aux (3ABS)  
'John will come tomorrow'
- (15) Jonek Mariari ogia eman dio.  
John-ERG Mary-DAT bread-Det-ABS give Aux (3ABS-3DAT-3ERG)  
'John has given bread to Mary'

<sup>5</sup> Dative Case may also accompany Absolutive arguments. However, San Martín (in progress) shows that the subject is not a regular subject in such instances, but rather a Quirky subject. See Fernández-Soriano (1999) for a parallel proposal for Spanish Unaccusative-Dative combinations.

The chart in (16) summarizes the pattern described above. Monoargumental sentences mark the single argument with ABS. Transitive predicates mark the object with ABS and the subject with ERG. Ditransitive predicates mark the object with ABS, the subject with ERG and the indirect object with DAT. (17) captures the generalization that DAT Case only arises in the presence of ABS and ERG.

(16)

|              | Object | Subject | Ind. object |
|--------------|--------|---------|-------------|
| Unaccusative | —      | ABS     | —           |
| Transitive   | ABS    | ERG     | —           |
| Ditransitive | ABS    | ERG     | DAT         |

(17) DAT only iff ABS and ERG.

Laka (1993a) and San Martin & Uriagereka (2002) propose Case systems that predict the generalization in (16-17). Let us concentrate on the later proposal.

San Martin & Uriagereka (2002) present a Case valuation system that derives the pattern in (13-15). They suggest that it is necessary to propose a system that is not sensitive to the unaccusative, transitive or ditransitive nature of predicates, but rather to the number of DP arguments that are involved. That DPs and not arguments participate in the Case system in Basque is necessary in view of the fact that certain clauses are Case marked in Basque. Consider the paradigm of infinitival complementation below:

- (18) Jon [GAP ogia egiten] saiatu da.  
Jon-ABS bread-Det-ABS make-Nomin-INN try Aux (3ABS)  
'Jon has tried to make bread'
- (19) Jonek [GAP ogia egitea] pentsatu du.  
Jon-ERG bread-Det-ABS make-Nomin-Det-ABS decide Aux (3ABS-3ERG)  
'Jon has decided to make bread'
- (20) Jonek Maria [GAP ogia egitera] bidali du.  
Jon-ERG Maria-ABS bread-Det-ABS make-Nomin-ALL send Aux (3ABS-3ERG)  
'Jon has sent Mary to make bread'
- (21) Jonek Mariari [GAP ogia egitea] gomendatu dio.  
Jon-ERG Maria-DAT bread-Det-ABS make-Nomin-Det-ABS recommend Aux (3ABS-3DAT-3ERG).  
'Jon has recommended Mary to make bread'

Each of the examples in the paradigm above is representative of a class of predicates that display the same behavior. (18-19) are potentially subject control instances, and (20-21) examples of object control. Interestingly, there is an asymmetry worth noting between (19 & 21) and (18 & 20). Specifically, in contrast to the latter, (19) and (21) show that the matrix auxiliary displays agreement not only with matrix arguments as is expected, but crucially also with the whole embedded clause

(signaled by ABS in the Auxiliary) that is marked with Structural Case (ABS). In contrast, in (18) and (20) the matrix auxiliary displays agreement only with the matrix arguments but not with the embedded clause, because the embedded clauses are not marked with structural Case but rather with Inherent Case. This asymmetry poses the question of which clauses are marked with Case in Basque, and more generally, what elements (nominal or clausal) take part in the Case marking system in Basque.

Turning back to the paradigm above, notice that, incidentally, only those clauses that are marked with Structural Case, namely those in (19 & 21), also display a Determiner preceding the Case marking. This suggests that only clauses that are Case marked with Structural Case are DPs in Basque. From this pattern, San Martin and Uriagereka conclude that only DPs enter the Case marking system in Basque.<sup>6</sup> Thus, the generalization in (16) should be modified to capture the fact that, it is not the unaccusative/transitive/ditransitive nature of the predicates that determines the emergent Case markings on the arguments in the clauses, but rather the number of DPs involved in them (whether nominal or clausal). This is captured in (22) below.

(22)

|           | Object | Subject | Ind. object |
|-----------|--------|---------|-------------|
| One DP    | —      | ABS     | —           |
| Two DPs   | ABS    | ERG     | —           |
| Three DPs | ABS    | ERG     | DAT         |

The claim that only DPs are involved in the Case system in Basque is supported by the data in (23-24), where replacement of the non-DP clause in (18 & 20) by a regular nominal (DP) argument restores the expected Case pattern.

(23) Jonek hau saiatu du.  
Jon-ERG this-ABS try Aux (3ABS-3ERG)  
'Jon has tried this'

(24) Jonek niri hau bidali dit.  
Jon-ERG I-DAT this-ABS send Aux (3ABS-1DAT-3ERG)  
'Jon has sent me this'

To summarize, the descriptive generalization in Basque is that clauses containing a single DP (either nominal or clausal) mark it with the default Case, i.e., Absolutive (as in (18)). Clauses with two DPs mark the object with Absolutive and the subject with Ergative Case (as in (19), (20), and (23)). Finally, clauses with three DPs mark the object with Absolutive, the subject with Ergative and the indirect object with Dative Case (as in (21) and (24)).

<sup>6</sup> Indefinite arguments are also marked with a Determiner in Basque. Thus, in (i) the object may be interpreted as definite or indefinite.

(i) Jonek artoa erein du.  
Jon-ERG corn-Det-ABS planted Aux (3ABS-3ERG)  
'Jon has planted corn/the corn'

In order to account for the above descriptive generalizations, San Martín and Uriagereka suggest that the Case Values are those in (25), and that they are determined in the initial Lexical Array, from which a cyclic derivation is construed. On the other hand, the procedure of Case Value specification is plausibly the one in (26).

- (25) Case Values
- a. Default Structural Case (bare or citation form).
  - b. Marked Structural Case (morphologically specified forms).
  - c. Special Structural Case (oblique forms correlating with lexical selection).
- (26) Structural Case Value Specification
- a. Assign default structural Case Value to the first/last D to Merge.
  - b. Assign marked structural Case Value to the last/first D to Merge.
  - c. Elsewhere, assign special structural Case Values.

The Case Value specification procedure in (26) allows for the desired parametric option. Ergabsolutive languages assign the Bare Citation form first (Absolutive), whereas Nominaccusative languages assign the bare form last (Nominative). Conversely, in the former type of languages, marked forms come last (Ergative) and first in the latter (Accusative). This derives the fact that, in Ergabsolutive languages, clauses containing one DP are assigned the Default citation form or Absolutive Case. Clauses with two DPs mark the complement DP with Absolutive Case and the subject with Ergative Case. Finally, clauses containing three DPs mark the object with Absolutive Case, the subject with Ergative Case and the indirect object with Dative Case. This Case marking system is in accordance with the descriptive generalization that the elsewhere Case, namely Dative Case, only arises in the presence of both Absolutive and Ergative DPs.

Considering the Case system presented above, let us turn to contexts of EC. As expected for EC contexts, the embedded subject is invariably phonetically null. Let us focus on example (27) below.

- (27) Jon [PRO *Mariari* *ogia* *ematen*] *saiatu* *da*.  
 John-ABS *Mary*-DAT bread-Det-ABS give-Nomin-Inn try Aux (3ABS)  
 ‘John has tried to give bread to Mary’

The Case marking in the matrix clause is as expected. The embedded clause is not marked with Structural Case (i.e., it is not a DP) and thus, there is a single DP in the matrix clause, the subject. Being the single DP in the matrix clause, the subject is marked with ABS, the expected Case. The surprising fact is that the emergent Case pattern within the embedded clause is not the expected one. Specifically, there are two DPs in the embedded clause (*Mariari* and *ogia*). We would expect that one DP would be marked Absolutive and the other Ergative. However, instead of the ERG we find the DAT Case in *Mariari*. According to the generalization in (17) that the elsewhere DAT Case only arises in the presence of the ABS and ERG DPs, we need to conclude that the null subject PRO participates in the Case system in Basque, and that it is marked ERG in (27).<sup>7</sup>

<sup>7</sup> Notice that the missing Ergative DP cannot be the matrix subject, since it is invariably marked ABS in subject control sentences.



If PRO is marked with regular Structural Case in (27), it is desirable to generalize and suggest that PRO bears regular Case in all EC contexts in Basque. Thus, in (28) below, PRO would be marked with ABS Case, the default Case corresponding to clauses containing a single DP.

- (28) Jon [PRO *etxera joaten*] *saiatu da*.  
 Jon-ABS PRO-ABS home go-Nomin-INN try Aux (3ABS)  
 'Jon has tried to go home'

To conclude, I have provided evidence that PRO participates in the regular Structural Case system in Basque. Evidence comes from the Case system presented in San Martin and Uriagereka (2002), which captures the generalizations that (i) Case Valuation is sensitive to the number of DPs in the clause, whether DPs are nominal or clausal, and that (ii) DAT only arises in the presence of ABS and ERG DPs.

#### 4.2. Romanian emphatic Subjects

Another set of evidence that suggests that the embedded null subject in EC is marked with regular structural Case comes from languages that permit double subjects (Burzio 1981 and Piera 1983 for Italian and Spanish). The idea is that emphatic pronouns need a clausemate antecedent with identical Case marking as the emphatic pronoun. In the absence of other matrix nominals that bear the same Case as the doubled subject, we must conclude that the null embedded subject is the antecedent that bears this matching Case.<sup>8</sup> Consider the Romanian data below taken from Comorovski (1986).

In (29) an emphatic pronoun marked with Nominative Case in the embedded clause refers to the matrix object controller. However, the matrix object is marked with Accusative Case, and according to the Case matching requirement, the matrix object cannot be the antecedent of the emphatic pronoun. In the absence of other arguments that may serve as an antecedent for the emphatic pronoun, we must conclude that the antecedent of the emphatic pronoun is PRO. Consequently, by the Case matching requirement, we must conclude that PRO is marked Nominative in (29). Similarly, in (30), the matrix subject marked Nominative cannot be the antecedent of the emphatic pronoun marked with Dative in the embedded clause. In the absence of other potential antecedents, we must conclude that the null embedded subject (PRO) is marked with Dative in (30).

- (29) Ion a ajutat-o<sub>i</sub> [PRO *să ajungă ea<sub>i</sub> prima*].  
 John has helped her-ACC arrive she-NOM the-first  
 'John has helped her to arrive the first'
- (30) Maria<sub>i</sub> va încerca [PRO<sub>i</sub> *să nu i se facă ei<sub>i</sub> prima dor de Bucharești*].  
 Mary-NOM will try not miss-3pl her-DAT the first of Bucharest  
 'Mary will try not to be the first of them who misses Bucharest'

<sup>8</sup> Parallel facts obtain in Malayalam as Mohanan (1982) observes, cited in Comorovski (1986).

To summarize, the above Romanian data demonstrates that PRO must be marked with regular Case. The conclusion has been drawn considering the fact that emphatic subjects display the same Case as their antecedents.

### 4.3. Icelandic

Sigurðsson (1991, 2000) convincingly argues that PRO is Case marked in Icelandic. Evidence comes from comparison of PRO and lexical subjects on several morphosyntactic phenomena that crucially depend on Case-marking. Icelandic is interesting in this respect, since apart from regular structural Cases it uses Quirky Case-marked nominals with certain predicates.

The first evidence he presents comes from morphological Case chains that involve Floating Quantifiers and Secondary predicates in infinitives. Floating Quantifier ‘all’ in Icelandic displays a full-fledged adjectival inflection, and Case agreement between the antecedent and the Floated Quantifier is mandatory. All examples are from Sigurðsson (1991).

- (31) Strákunum leiddist öllum í skóla.  
The boys-DAT bored all-DAT.pl.m in school  
‘The boys were all bored in school’
- (32) Strákanna var allra getið í ræðunni.  
The boys-GEN was all-GEN.pl.m. mentioned in the speech  
‘The boys were all mentioned in the speech’

Turning now to Control infinitives, consider the data in (33-34). These examples show that the Case on the Floated Quantifier is distinct from the matrix nominal, which indicates that PRO heads a morphological Case Chain parallel to the way lexical subjects do. The conclusion is that this can only be achieved if PRO is Case marked.

- (33) Strákarnir vonast til að PRO leiðast ekki öllum í skóla.  
the-boys-NOM hope for to PRO-DAT get all-DAT in school  
‘The boys all hope not to get bored in school’
- (34) Strákarnir vonast til að PRO verða allra í ræðunni.  
the-boys-NOM hope for to PRO-GEN be all-GEN in the school.  
‘The boys all hope to get to school’

Additional evidence for the idea that PRO is Case marked comes from adjectival predicates and passive participles, which agree in Case, Number and Gender only with their clausemate Nominative subject. In the absence of a Nominative argument, adjectives invariably display default agreement. Interestingly, the generalization found in finite clauses carries over to Control Infinitivals. For example, the presence of Default Agreement in (35) suggests that PRO bears Quirky Case.<sup>9</sup>

<sup>9</sup> Notice that (35) involves a PC predicate. However, Ottosson (p.c.) claims that parallel facts obtain with EC predicates.

- (35) Strákarnir vonast til að PRO verðahjálpað/\*hjálpaðir/\*hjálpuðum.  
 the boys-NOM hope for to PRO-DAT be helped  
 (dflt.)/\*(NOM.pl.m)/\*(DAT.pl.m)  
 ‘The boys hope to be aided (by somebody)’
- (36) Strákunum leiddist að verða kosnir í stjórnina.  
 the boys-DAT annoyed(dflt.) to be elected(NOM.pl.m) to the board  
 ‘The boys were annoyed by being elected to the board’

#### 4.4. Greek

Philippaki-Warburton and Catsimali (1999) present extensive evidence for the idea that the empty category in obligatory control in Greek is marked with regular structural Case.<sup>10</sup>

Adjective phrases in Greek display gender, number, and Case agreement with their subject, as shown in (37) below. Assuming the general fact that predicate phrases license their Case from their subject NP, example (38) below involving Exhaustive control provides evidence that the empty category in the embedded clause is marked with Nominative Case. Philippaki-Warburton and Catsimali note that, in principle, the source of the Nominative Case on the predicate adjective in (38) might be the matrix subject through a long distance agreement. However, the object control construction in (39) shows that this cannot be the case, and that the source of the Case in the predicate adjective is invariably its local null subject. Specifically, in (39) the embedded predicate marked with Nominative refers to the main clause object. However, the matrix object is marked with accusative Case. This Case mismatch suggests that the only source for the Case in the predicate adjective is the local null subject, and in turn, that the null subject is marked Nominative in (38-39).

- (37) O Janis ine kalos.  
 the Jani-Nom-sg is-3sg good-Nom-sg  
 ‘John is nice’
- (38) I Eleni arhise na jinete poli omorfi.  
 the Eleni-Nom-sg started-3sg subj. become-3sg very pretty-Nom-sg  
 ‘Helen has started to become very pretty’
- (39) Evala to Nikon a dithi Meghas Aleksandhros.  
 made-1.sg the Niko-acc subj dress-3sg Alexander the Great-Nom  
 ‘I made Nikos dress up as Alexander the Great’

Another piece of evidence suggesting that the embedded subject is marked with regular Case in Greek is provided by the clitic *monos* (X-self) and *idhjos* (the same). These elements display agreement in gender, number and Case with the NP that they modify, as illustrated in (40-41) below.

<sup>10</sup> They argue that this, together with the fact that Greek lacks infinitival clauses, is evidence that in Greek, the empty category in Control is pro rather than PRO. See San Martin (2004) for arguments in favor of the PRO status of the null subject.

- (40) O Janis irthe monos-tu.  
the Jani-Nom came by himself-Nom  
'John came by himself'
- (41) O Janis o idhjós irthe ke mu to ipe.  
the Jani-Nom the same-Nom came-3sg and cl-gen cl-acc told  
'John himself came and told me this'

In a parallel fashion, in constructions involving EC predicates, when *monos* and *idhjós* are placed in the embedded clause they display the agreement properties illustrated above. In the absence of the explicit subject we must conclude that the argument that these elements modify is PRO. Considering the case agreement that *monos* and *idhjós* display we must conclude that in the object control examples (42-43) the modifier must be modifying the phonetically null subject in the embedded clause, i.e., that the null subject in (42-43) is marked with Nominative Case.

- (42) Evala to jani na fai monos tu.  
made-1sg John-acc subj. eat-3sg alone-nom  
'I made John eat by himself'
- (43) Arangase ti Maria na kuvalai I idhja ta vivlia.  
forced-3sg the Maria-acc subj. carry-3sg the same-nom the books  
'He forced Mary to carry the books herself'

#### 4.5. Conclusions

To summarize, there is compelling evidence showing that the controlled subject is marked with regular Case in various languages. This suggests that the proposals summarized in section 3 are not adequate in empirical and/or theoretical grounds. To start with, if Movement from Case to Case positions is banned by Last Resort, we must conclude that the Movement analysis of Obligatory Control is not adequate. In other words, independently of whether movement from Theta to Theta position is allowed in the system, the fact that PRO has Case suggests that the embedded subject does not raise to the matrix clause in Control. In turn, it suggests that, for economy reasons, there is no need to postulate the existence of Null Case as part of the inventory of regular Cases as Chomsky and Lasnik (1993) suggest. In other words, absence of evidence for the existence of Null Case renders it unnecessary within the system.

### 5. The category of the embedded clause

This section uncovers the first crucial aspects regarding the complementary distribution of PRO/lexical subjects: the categorial nature of the embedded clause in which they are licensed. Specifically, data involving Exhaustive Control predicates indicate that the category of the embedded clause is TP rather than the standardly believed CP. Conversely, lexical subject licensing involves CP-type complements. Far from trivial, this dichotomy will be crucial in accounting for the complementary distribution of the elements at hand. The first part (5.1) reviews the arguments in

Chomsky suggesting that PRO arises in CP Phases rather than TPs. The second part (5.2) includes crosslinguistic empirical data supporting my claim that PRO arises in TPs rather than CPs and that lexical subjects are licensed in CPs.

### 5.1. EC predicates do not take CP-Phases

Both in GB and in the Minimalist Program, Chomsky (1998, 1999, 2000, 2001) has assumed that Control predicates take CP complements rather than TPs. The GB argument for this was obvious: were the embedded clause an IP, the matrix predicate would govern PRO, resulting in a violation of the PRO Theorem. On the other hand, within the Minimalist Program, the motivation for the CP status of the embedded clause comes from the notion Phase. In this section I will review the argument that Chomsky employs to suggest that complements of Control predicates are CP Phases. The conclusion will be that, whereas the argument is valid for Partial Control predicates, it clearly does not go through when we consider genuine Control or Exhaustive Control predicates.

To start with, let us briefly consider some issues surrounding the notion Phase. Chomsky addresses the general question of why Movement (Raising) is ever possible if Agree and Merge preempt it. The preliminary answer is that Pure Merge of Arguments is restricted to Theta Positions. From this, it follows that non-Theta positions must be visited only by elements that Move to that position, not by Merge. The problem arises with Expletives, which do not have Theta requirements and in principle can Merge in non-Theta positions. The question is why Merge of the Expletive does not invariably ban Movement of arguments. This reasoning also applies to the competition between Expletives and PRO. For a sentence like (44), the application of Merge Over Move (henceforth MoM) results in ungrammaticality, as shown by (45).

(44) It's fun [PRO<sub>i</sub> to t<sub>i</sub> go to the beach].

(45) \*is fun [it to PRO go to the beach].

Chomsky suggests an interesting solution to the problem through a novel notion Subnumeration, defined as subsets of LA that are placed in active memory. The elements in the Subnumeration will determine whether MoM should apply, and only the presence of an Expletive in the Subnumeration will preempt Move. Contrary to (45), the grammaticality of (44) suggests that the Subnumeration contains no Expletive and that no MoM violation occurs. The conclusion is that only in the presence of an expletive in the Subnumeration do MoM considerations apply. In turn, Chomsky further argues that Subnumerations should build natural Syntactic Objects (SO), 'an element that is relatively free in terms of Interface properties' (Chomsky 1999). He suggests that this notion corresponds to Propositions on the Semantic side (vP and CP-the latter including information about Tense and Force). Interestingly, Propositions have the characteristics of allowing for relative freedom with respect to certain PF effects such as fronting, extraposition, pseudoclefting and response fragments, operations that are typically attributed to CPs. He concludes that CPs are Propositional. Finally, he calls these natural Propositional Syntactic Objects 'Phases'.

Turning back to (44), the absence of violation of MoM suggests that the embedded clause must be a Phase. Some evidence for the Propositional status of embedded

complements at the PF side of Control is suggested in Rizzi (1982), translated into English in (46-47) below.

(46) [only to drink beer] does he ultimately want!

(47) [to talk to Mary] is what John wants. [Chomsky 1999]

In contrast to complements of Control predicates, Complements to Raising/ECM predicates are not Phases. (48-49) demonstrate that the same PF effects attested in (46-47) produce an ungrammatical result. Chomsky takes the contrast between (46-47) and (48-49) as proof that Control and Raising are distinct in that only the former involve complements that are Phases.

(48) \*[only to drink beer] does he ultimately seem!

(49) \*[to like beer] is what John seems! [Chomsky 1999]

Interestingly, notice that the predicate employed to test the independence of the embedded clause in Control, namely predicate *want* in (46-47), is not an Exhaustive Control Predicate but rather a Partial Control predicate. Once we consider the test with Exhaustive Control predicates, the contrast in behavior between Raising and Exhaustive Control predicates is considerably weakened. In other words, Exhaustive Control predicates disallow fronting of the complement just as Raising predicates do. The conclusion is that the argument in Chomsky that control predicates take CP complements is not correct for the predicates in the EC class.

(50) [PRO to go to the beach] is what John \*started/\*managed/?tried.

(51) [Only to drink beer] is what John \*started/\*managed/?tried!

The asymmetry in fronting possibilities between EC and PC is also attested in other languages.<sup>11</sup> The following examples illustrate that such is the case in Greek as Alexiadou & Anagnostopoulou (1999) note. Specifically, unlike the EC predicate *start* in (53), the PC predicate *know* allows to prepose the complement clause, as (52) demonstrates.

(52) afto pu kseri o Janis ine na kolimba.  
this that knows John-NOM is Subj.swim-3sg  
'What John knows is how to swim'

(53) \*afto pu arxise o Janis ine na trehi.  
this that started-3sg John-NOM is Subj. run-3sg  
'What John started is to run' [Alexiadou & Anagnostopoulou 1999]

<sup>11</sup> Predicate *try* does not behave uniformly across languages. Unlike in English, Spanish *try* allows for optional control, an indication of PC. As expected, extraposition results in grammaticality (ii).

(i) Juan<sub>i</sub> intentó que pro<sub>j</sub> comiera. (ii) [Sólo beber cerveza] es lo que Juan intentó en el bar.

## 5.2 Crosslinguistic empirical evidence

This section provides empirical evidence in favor of two ideas: (i) that EC predicates resist the CP layer in the embedded clause (i.e., that they take TPs), and (ii) that the various strategies that exist in languages for filling Comp involve lexical subject licensing (i.e., that lexical subjects are licensed in CPs).

### 5.2.1. EC predicates take TPs

EC predicates prohibit Complementizers in embedded subjunctive complements in various languages. This is shown in (54) below for Romanian.

- (54) Mioara<sub>i</sub> a început (\*ca) să se<sub>i</sub> pregătească de plecare.  
 Mioara has started Comp Subj. Refl. prepare-3sg of departure  
 'Mioara has started to prepare the departure'  
 [Alboiu & Motapanyane 2000]

Standard and Belfast English also provide evidence in favor of the idea that EC predicates take TPs. Consider one well-known distinction between Standard English and Belfast English: the categorial status of the element *for*. In Standard English, *to* is the Infinitival marker (55) and *for* in (56) is unambiguously a prepositional Complementizer that only appears when there is a lexical subject in the embedded clause.

- (55) John seems to be sick.                      (56) John prefers for Mary to leave.

However, in Belfast English, *for* is ambiguous between an Infinitival marker and a Complementizer (Henry 1987, 1992). Crucially, Henry argues that, in constructions that display the sequence *for-to*, *for* is not located in Comp, but rather, it is cliticized to *to* in the Inflectional cluster. Among such constructions, we find both Raising (57-58) and EC (59).

- (57) John seems [for to be better].  
 (58) John isn't likely [for to win].            (59) They tried [for to win].

In fact, the element *for* only functions as a Complementizer where there is a lexical subject in the embedded clause, as in (61). (61) contrasts minimally with standard ECM in (60), where *for* is part of the Infinitival cluster.

- (60) I wanted John for to win.                (61) I wanted sincerely [for John to win].

In short, the contrast between Standard English and Belfast English shows that there is a consistency in the system, whereby EC employs a syntactic configuration that crucially involves no C. In the absence of evidence suggesting the existence of C in complements of EC, by economy considerations, it is reasonable to assume that EC predicates take complements of the TP type.

### 5.2.2. Lexical subjects are exclusively licensed in CPs

This section presents data involving various strategies that languages employ for completing the CP layer (the use of a Complementizer specific for subjunctive

clauses (section 5.2.2.1.) and raising some verbal element to Comp (section 5.2.2.2). Interestingly, both contexts license lexical subjects and disallow PRO, which strengthens the idea that, unlike PRO, lexical subjects are licensed in CPs.

### 5.2.2.1. *Subjunctive Complementizers*

Romanian<sup>12</sup> clearly illustrates the central claim of this section: whereas CPs license lexical subjects and disallow PRO, TPs license PRO and disallow lexical subjects. Romanian employs two strategies to license lexical subjects. One involves the Subjunctive Complementizer itself. The other involves raising the subjunctive particle (*să*) together with the embedded predicate to Comp. The latter strategy will be discussed in the next section. In Romanian hypotactic contexts, embedded clauses typically license lexical subjects in the presence of the subjunctive Complementizer (*ca*), as illustrated in (62-63).

- (62) Ion vrea [ca el să rezolve problema].  
 Ion want-3sg Comp he Subj. solves the problem  
 ‘Ana wants (him) to solve the problem’ [Farkas 1985]
- (63) Ion speră [ca Ghita să rezolve problema].  
 Ion hopes Comp Ghita Subj. solve the problem  
 ‘Ion hopes that Ghita will solve the problem’ [Farkas 1985]

Interestingly, null subjects resulting from Raising (NP-trace) or EC (PRO) disallow the presence of the subjunctive Complementizer.<sup>13</sup> In the domain of Control, this is illustrated by the examples (64-65), which involve subject control and object control relations, respectively. Let us assume the standard idea that the presence of Comp involves the existence of the CP layer, and that, by economy considerations, the absence of Comp signals that the embedded clause is a TP rather than a CP. Thus, the Romanian facts illustrated above support the idea that lexical subjects are licensed in CPs whereas PRO appears in TPs.

- (64) Mioara<sub>i</sub> a început (\*ca) să se<sub>i</sub> pregătească de plecare.  
 Mioara has started Comp Subj. Refl. prepare-3sg of departure  
 ‘Mioara has started to prepare the departure’ [Alboiu & Motapanyane 2000]
- (65) Ion<sub>i</sub> îl<sub>k</sub> ajută pe Dan<sub>k</sub> [\*ca \*el/GAP<sub>k/\*i/\*j</sub> să plece].  
 John him-helps ACC Dan Comp he Subj. leave  
 ‘John helps Dan to leave’ [Farkas 1985]

That the TP vs. CP distinction is relevant in licensing PRO and lexical subjects is further supported by the fact that in Romanian, and more generally in Balkan languages, another strategy that crucially fills Comp licenses lexical subjects and

<sup>12</sup> I will discuss the case of Romanian in some detail, because to my knowledge, it is a language that clearly shows the existence of a subjunctive Complementizer.

<sup>13</sup> Grosu and Horvath (1984) already note that Raising from subjunctive complements is licensed in Romanian as long as there is no Complementizer present. This fact has been extensively discussed in the literature (Rivero 1989, Motapanyane 1995, among others).



disallows PRO: raising the subjunctive particle together with the embedded predicate to Comp. This is illustrated in the next section by Romanian, Greek, Arabic, Italian and European Portuguese.

#### 5.2.2.2. *Postverbal subjects*

This section illustrates another syntactic factor that results in lexical subject licensing: verb raising to Comp. This phenomenon takes place independently of the finite or nonfinite nature of the embedded clause, which suggests that rather than finiteness (as GB assumed), the category of the embedded clause does play a role in the distribution of lexical subjects and PRO.

##### 5.2.2.2.1. Romanian

In Romanian, apart from the use of the Subjunctive Complementizer discussed in the previous section, there is another strategy for filling Comp, namely, verb raising to Comp. As a result of this movement, subjects appear in postverbal position. Crucially, this strategy licenses lexical subjects as shown in (66-67).

(66) Ion vrea [să mănice Maria].  
 John wants Subj. eat-3sg Mary  
 'John wants Mary to eat' [Watanabe 1993]

(67) Sper [să plece mâine la Londra].  
 hope-1sg Subj. leave-3sg tomorrow at London  
 'I hope she will leave for London tomorrow'  
 [Alboiu & Motapanyane 2000]

Notice that the predicates that allow lexical subjects are PC predicates and not EC predicates. This is expected considering the idea that genuine Control (PRO) only arises with EC predicates, whereas PC contexts license pro in some languages such as Romanian. In fact, since Romanian is a pro-drop language, an empty subject in cases like (66-67) would arguably be pro rather than PRO. This is supported by the fact that PC predicates like *want* or *hope* allow distinct agreement markers on the two predicates. In other words, the embedded and matrix subjects may be disjoint in reference, a clear indication that EC is not involved in such instances.

The analysis of (66-67) as involving *să* in Comp is supported by the fact that nothing in the clause can be placed in front of the subjunctive particle *să* unless it is stressed, contrastive or Focused, as noted by Farkas (1984) in the following examples:

- (68) \*Vreau mâine să meargă la Cluj.  
 want-1sg tomorrow Subj. go-3sg at Cluj  
 'I want him/her to go to Cluj tomorrow'
- (69) Vreau MIINE să meargă (și nu poimîine).  
 want-1sg tomorrow Subj. go-3sg and not the day after  
 'I want him/her to go TOMORROW (and not the day after)'

- (70) Vreau ANA să vină cu noi și nu Ion.  
 want-1sg Ana Subj. come-3sg with us and not Ion  
 'I want ANA to come with us and not Ion'

Notice that when V-T-C movement takes place, postverbal subjects are licensed even when Raising predicates are involved (71). In other words, as expected, the presence of Comp blocks raising and allows for lexical subjects in the embedded clause.

- (71) Sa nimerit [să fie *toți doctorii* de accord].  
 refl-have-3sg happened Subj. be-3 all doctors-the of agreement  
 'It happened that all doctors agreed' [Watanabe 1993]

To summarize, in Romanian, lexical subjects are only licensed when Comp is full. The converse also holds: PRO disallows the presence of Comp. The following sections demonstrate that the same generalization is true for other languages.

#### 5.2.2.2.2. Modern Greek

Modern Greek invariably employs subjunctive complements in Control (as well as in Raising).<sup>14</sup> As in Romanian, in this language there is also a subjunctive particle (*na* in Greek), but unlike in Romanian, there is no Complementizer specific to Subjunctive clauses. Thus, we find that the only strategy available to fill Comp in Greek subordination contexts is to raise the subjunctive particle *na* together with the embedded predicate to Comp (V-I-C movement).

The pattern that we find in Greek is parallel to the one in Romanian. Lexical subjects/pro are licensed when T-to-C movement has taken place (72), and only with PC predicates.<sup>15</sup> Genuine Control, which involves PRO, does not involve T-to-C movement (73).

- (72) I Maria theli [na agorasi o Yiannis tin efimerida].  
 Mary want-3sg PRT buy-3sg John the newspaper  
 'Mary wants John to buy the newspaper' [Terzi 1997]

- (73) Ta pedhia arxisan [na trexoun].  
 the children-NOM started-3pl Subj. Run-3pl  
 'The children started to run' [Alboiu & Motapanyane 2000]

That T-to-C movement has taken place in DP/pro licensing is supported by the following facts: first, subjects are placed postverbally. Preverbal subjects are possible in the embedded clause, but as in Romanian, only with a marked reading (74).

<sup>14</sup> Unlike Romanian and other languages of the Balkan group, Greek has totally lost the infinitive.

<sup>15</sup> The distinct agreement markers on the matrix and embedded predicates in (i) indicate that the null subject is pro rather than PRO. In fact, the agreement markers of the matrix and embedded predicates must only match in EC contexts.

(i) Thelo [na mou grapsi kati].  
 want-1sg Subj. me write-3sg something  
 'I want her to write something'

- (74) ?O Yiannis theli [i Maria na figi].  
 the John wants the Mary Subj. leave  
 'John wants MARY to leave'

Second, Terzi (1991) shows that *na* is incompatible with Complementizers like the Indicative *oti* (75) or with the conditional *if* (*an* in Greek) (76-77), which has extensively been argued to occupy Comp (Kayne 1990). In contrast, *na* is compatible with *wh* words located in Spec CP (78).

- (75) O Yiannis theli (\*oti) na fai.  
 the John wants Comp-Indic Subj. eat  
 (Lit.) 'John wants that Subj. eat'
- (76) \*John does not know if to eat.
- (77) \*O Yiannis den kseri an na fai.  
 the John not knows if Subj. eat  
 (Lit.) 'John does not know if to eat'
- (78) O Yiannis den kseri pou na fai.  
 the John not knows where Subj. eat  
 'John does not know where to eat'

With object EC predicates, parallel to what we find in subject control, postverbal subjects (lexical or *pro*) are only licensed when T to C movement takes place, and only with PC predicates such as *persuade* (79). That the null subject in (79) is *pro* rather than PRO is signaled by the possibility of distinct agreement markers in the matrix and embedded predicates. In contrast, postverbal subjects are banned with EC predicates such as *ask* (80). As expected, object control with EC predicates requires that the subject agreement markers must match in the matrix and embedded predicates (81-82), precisely because the subject is PRO rather than *pro*.

- (79) sto telos ton episa [na fiyune pro].  
 at-the end him persuaded I Subj. leave-3pl  
 'At the end I persuaded him for them to leave'
- (80) \*I Maria parakalese to Yianni [na diavasoun ta pedia].  
 the Mary asked John-ACC Subj. read-3pl the children-NOM  
 (Lit.) 'Mary asked John for the children to read' [Terzi 1997]
- (81) I Maria parakalese to Yianni<sub>i</sub> [PRO<sub>i/\*k</sub> na divasi].  
 the Mary asked John-ACC Subj. read-3sg  
 'Mary asked John to read' [Terzi 1997]
- (82) \*I Maria parakalese to Yianni [na diavaso pro].  
 the Mary asked John-ACC Subj. read-1sg  
 (Lit.) 'Mary asked John that I read' [Terzi 1997]

To summarize, in Greek *pro* or lexical DPs are only licensed when V-T-C movement has taken place, the only strategy available to fill C in subordination contexts in this language. Interestingly, this only happens in PC environments (both

with subject and object Control predicates). In contrast, PRO only arises in the absence of V-T-C movement. This strongly supports that lexical subjects are licensed in CPs and PRO in bare TPs.

#### 5.2.2.2.3. Arabic

Arabic is like Greek in many respects: first, it lacks infinitival clauses and employs subjunctive clauses with full agreement in the embedded predicate. Second, it also lacks a Complementizer specific for Subjunctive clauses. Third, it employs a subjunctive morpheme (*?an*) in the embedded inflection.

Turning now to where lexical subjects are licensed, as in Greek, lexical subjects are only licensed when V-T-C movement has applied in the embedded clause, i.e. when Comp is full. Again, this only takes place with PC predicates, as illustrated by (83-84). That the null subject in such contexts is *pro* rather than PRO is signaled by the fact that it can be free in reference (85). Once more, the generalization is that lexical subjects/*pro* arise in CPs.

- (83) rafada Zayd-un [*?an* yarhal-a amr-un].  
 refused-3sg Zayd-NOM Subj. leave-Subj-3sg amr-NOM  
 ‘Zayd refused for amr to leave’
- (84) *?aqna*-a Zayd-un<sub>i</sub> amr-an<sub>k</sub> [*?an* y(OT?)arhal-a Hind-un<sub>j</sub>].  
 persuaded-3sg Zayd-NOM amr-ACC Subj. leave-3sg Hind-NOM  
 (Lit.) ‘Zayd persuaded amr for Hind to leave’
- (85) *?aqna*-a Zayd-un<sub>i</sub> amr-an<sub>k</sub> [*?an* yarhal-a *pro*<sub>i/k/j</sub>].  
 persuaded-3sg Zayd-NOM amr-ACC Subj. leave-3sg  
 (Lit.) ‘Zayd persuaded amr to leave/someone else to leave’

#### 5.2.2.2.4. Italian, some Italian dialects and European Portuguese

Let us consider another set of languages that involve movement of some verbal element to Comp. All instances support the idea at hand: regardless of the finite or infinitival nature of the embedded clause, lexical subjects are licensed within CPs, and PRO in complements that are TPs.

Starting with Italian, according to Rizzi (1982) postverbal subjects are assigned Nominative Case when Aux-to-Comp movement has taken place in infinitival or gerundive clauses, i.e., when Comp is full. This is illustrated in (86-87) below:

- (86) Suppongo[non esser la situazione suscettibile di ulteriori miglioramenti].  
 I-suppose not-to-be the situation susceptible of further improvement  
 ‘I suppose that the situation is not susceptible to further improvement’
- (87) \*Suppongo[*la situazione* non esser suscettibile di ulteriori miglioramenti]  
 I-suppose not-to-be the situation susceptible of further improvement  
 ‘I suppose that the situation is not susceptible to further improvement’

Support for the claim that the Aux in (86) is in Comp is provided by two observations: First, the fact that in conditional clauses, *if* (*se* in Italian) is incompatible with a raised Auxiliary (88-89). Second, that the order that we find is [Auxiliary DP].

- (88) [Avesse lui capito al volo], tuto sarebbe andato bene.  
Had he understood at flight, all would-be gone well  
'If he had understood at once, all would have gone well'
- (89) \*[Se avesse lui capito al volo], tutto sarebbe andato bene.  
If had he understood at flight, all would-be gone well  
'If he had understood at once, all would have gone well'

Salentino employs subjunctive complements in PC contexts and Infinitivals in complements of EC predicates. As EC involves a PRO subject, we expect that whatever strategy that licenses lexical subjects only applies to PC contexts, and not to EC. As expected, Salentino displays postverbal lexical subjects in PC contexts, where the embedded subject appears postverbally after the Complementizer plus the verb cluster [Ku verb] (90). In fact, nothing can break the adjacency between particle KU and the predicate<sup>16</sup> (91).

- (90) Oyyu ku bbene lu Maryu krai.  
Want-1sg that come-3sg the Maryu tomorrow  
'I want Maryu to come tomorrow' [Calabrese 1992]
- (91) \*Oyyu ku lu Maryu bbene krai.  
Want-1sg that the Maryu come-3sg tomorrow  
'I want Maryu to come tomorrow' [Calabrese 1992]

European Portuguese licenses lexical subjects in inflected infinitives. Raposo (1987) makes a parallelism between some instances of European Portuguese (EP) inflected infinitives and the Aux-to-Comp Italian cases discussed above. He notes that the contexts in which both phenomena arise in the languages are strikingly similar. Consider the asymmetry of lexical subject licensing in European Portuguese in (92-93). These examples show that lexical subjects are only licensed in postverbal positions in embedded inflected infinitival clauses. The fact that the subjects appear postverbally suggests that in such instances T has raised to C. Raposo argues that the reason for the verb movement in (92) is that embedded INFL needs to be governed and Case marked from the matrix predicate in order to be able to assign Nominative Case to the embedded subject. This implies a general Infl-to Comp process rather than the restricted Aux-to-Comp in Italian, but the general idea holds: lexical subjects are licensed when Comp is full.

- (92) O Manel pensa [terem os amigos levado o livro].  
the Manel thinks to-have-3.pl the friends taken-away the book  
'Manel thinks that the friends had taken away the book' [Raposo 1987]
- (93) \*O Manel pensa [os amigos terem levado o livro].  
the Manel thinks the friends to-have-3.pl taken-away the book  
'Manel thinks that the friends had taken away the book' [Raposo 1987]

<sup>16</sup> Interestingly, Salentino also allows preverbal subjects. See Calabrese (1992) for details.

Southern Italian dialects<sup>17</sup> are of special interest with respect to lexical subject licensing in infinitival clauses. In Sardinian, for example, Control predicates invariably select for bare infinitives, but only PC predicates allow for postverbal subjects (95-96). That lexical subjects appear postverbally suggests that the verb has moved to Comp. In short, as expected, lexical subjects are licensed when Comp is full. Turning to the Logudorese-Nuorese dialect of Sardinian, rather than bare infinitives as in Sardinian, we find inflected infinitival clauses similar to the ones found in Portuguese in PC contexts. Crucially, it also allows for postverbal subjects only where the verbal cluster has moved to Comp (96). The embedded null subject in PC contexts is arguably *pro* rather than *PRO*, since distinct subject agreement markers are allowed in matrix and embedded predicates (97).

- (94) Su pitzinnu est provande [a dormire].  
 ‘The boy is trying to sleep’ [Allan Jones 1992]
- (95) Non Keljo [a cantare tue].  
 ‘I do not want you to sing’ [Allan Jones 1992]
- (96) Non Keljo [a cantares tue].  
 Neg want-1sg to sing-2sg you  
 ‘I do not want you to sing’
- (97) Non keljo [a cantaren pro].  
 Neg want-1sg to sing-3pl they  
 ‘I do not want them to sing’ [Allan Jones 1992]

To summarize, Italian and European Portuguese provide additional evidence that (i) finiteness is irrelevant in lexical subject licensing and (ii) lexical subjects are licensed when C is filled by whichever strategy that is available in the language.

#### 5.2.2.2.5. For-to in INFL vs. For in Comp.: some comparisons

In this section I will cover languages that contain certain particles whose categorial status has been controversial between Infl or Comp. Again, descriptively speaking, it seems that lexical subjects are invariably licensed only when Comp is involved.

Hoebeker (1975), De Vriendt (1978) and Haegeman (1986), among others, have attested that several Flemish dialects of Dutch display Nominative Subjects in Infinitival clauses, which are introduced by what looks like prepositions. Additionally, these complements include an infinitival *te* marker. Both *PRO* and lexical subjects are allowed in these Infinitival clauses (98-99). At first sight, this suggests that *PRO* and lexical subjects are licensed in parallel structural conditions.

- (98) [Voor *gie* da te krygen] goaje vele moeten veranderen  
 for you that to get go-you a lot must change  
 ‘In order to get that you will have to change a lot’ [Haegeman 1986]

<sup>17</sup> See Ledgeway (2000) for a Minimalist approach to the syntax of southern Italian dialects.

- (99) dan-k proberen [voor PRO weg te goan].  
 that-I try for PRO away to go  
 'that I try to go away' [Haegeman 1986]

Interestingly, Haegeman (1986) provides evidence that, contrary to Control complements to EC predicates like *try*, which only license PRO, infinitival clauses that license lexical subjects with Nominative Case are CPs. Specifically, a Focus marker (*te*), which usually attaches to Comp, is only allowed in infinitivals with specified subjects but not in infinitivals with PRO.

The Flemish data above are strikingly similar to the Belfast English data discussed in Henry (1987), in the sense that the string [*Voor...te*] (*for..to* in Belfast English) is found when both PRO and when lexical subjects are licensed. However, crucially, Henry concludes that *for* is a Complementizer and not part of INFL when it occurs with lexical subjects.

Let us consider the data in Belfast English more closely. The generalization is that Raising, ECM, EC and PC predicates take *for to* complements but, as expected, only PC predicates license lexical subjects. All examples are taken from Henry (1987).

- (100) John tried [*for to* win]. EC  
 (101) John seems [*for to* be happy]. Raising  
 (102) I wanted John [*for to* win]. ECM  
 (103) I wanted very much [for John to win.] PC

The ECM status of (102) is supported by the fact that there is an adjacency requirement between the matrix predicate and *John*, as (104) shows:

- (104) \*I wanted very much John for to win.

*For* has been claimed to have a double status in Belfast English (Henry 1992), as part of the inflectional cluster in Raising, ECM and EC but, crucially, as a Complementizer in PC contexts where lexical subjects are licensed. Evidence for the idea that *for* raises from INFL to COMP in PC is provided in (105), where doubling of *for* results in ungrammaticality:

- (105) \*I wanted very much [for John for to win].

Turning now to the Flemish data, it is plausible that, parallel to Belfast English, Flemish *Voor* is in Comp when lexical subjects are licensed, but in INFL in EC contexts. If this is correct, both Flemish and Belfast English provide evidence that lexical subjects are licensed when Comp is full and conversely, PRO when there is no Comp. A similar proposal has been suggested for Standard English *for-to* constructions by Watanabe (1993), which was later adopted by Bošković (1997). Watanabe (1993), following a suggestion by Chomsky, proposes that in a sentence like (106) below, *for-to* is base generated under INFL and that *for* raises to Comp. If this is correct it provides further support in favor of the idea that, in this context, lexical subjects are licensed by the INFL to COMP process, i.e., when Comp is full.

(106) John wants for Mary to leave the party.

Considering the facts about *for-to* complements, there is some dialectal variation in English that is worth mentioning. Interestingly, different dialects of English differ with respect to the possibility of certain predicates taking *for-to* complements with lexical subjects. For instance, predicate *try* does not take [*For DP to*] complements in Standard English (107), Belfast English or the Ottawa Valley English. However, Ozark English does allow (108). This suggests that predicate *try* in Ozark, much like in Spanish and unlike in standard English, belongs to the PC class.<sup>18</sup>

(107) \*John tried for Bill to learn the problem.

(108) John tried for Bill to learn the problem.

Crucially, Carroll (1983) points out that, despite the great variation, ‘there are no reported dialects that permit the Complementizer and disallow an overt subject and no reported dialects that disallow *for* but do have an overt subject.’ This conforms to the generalization that lexical subjects appear in the presence of Comp.

English based Creole languages are worth considering in this section because they are in the process of developing a Complementizer system. It has been argued that the development into Creole languages should involve the same process of language change as other natural languages do, i.e., the changes should be within the realm of possibilities allowed by Universal Grammar. One natural change found in languages undergoing creolization is the appearance of embedded subordinating clauses and the development of the Complementizer system.

In accordance with what we have seen so far, we would expect that lexical subjects are only licensed in the presence of a Complementizer when the Complementizer has been developed. Consider the case of Haitian Creole attested in Koopman and Lefebvre (1981). They argue that Complementizer *pu* has two sources, one a preposition (which nowadays introduces final clauses) and the other the modal particle, both homophonous to the present day Complementizer *pu*. The Complementizer that derived from the modal introduces complements of predicates like *want, tell, decide, ask, promise, wish and believe*, all PC predicates. (109) and (110) exemplify the Modal and Complementizer uses of *pu* respectively.

(109) m pu ale lekol.  
I MODAL GO school  
‘I have to go to school’

(110) yo te vle pu m t âtre nâ trup šakmél.  
They PAST want COMP I PAST join in troops Jackmel  
‘They wanted me to join the troops of Jackmel’

<sup>18</sup> This is not surprising, since unlike other EC predicates, which universally display EC properties, predicate *try* shows great variation in its properties as EC or PC across languages.



Koopman and Lefebvre propose that Modal *pu* has lost its modal meaning of obligation and has historically left the INFL position for COMP. Evidence for this change comes from the fact that *pu* can co-occur with the modal main verb *must* only when *pu* is in COMP, not when *pu* is a modal marker (i.e., not when it is in INFL). The historical change is supported by the frequency changes in the use of *pu* as a Complementizer. Whereas there was no reported use of *pu* as COMP in Sylvain (1936), in Hall (1953) we find a strong tendency for *pu* in COMP. Interestingly, and in contrast to the Modal use of *pu*, we find that all *pu*-s in COMP are followed by lexical subject. This conforms to the general pattern that I expect: lexical DPs are licensed in the presence of Comp.

5.2.2.2.6. Scandinavian languages

Let us next look at Scandinavian languages. The interest comes from the fact that there is controversy as to the status of certain markers as being part of INFL or COMP. Consider the comparison between Icelandic and Norwegian in this respect. Among others, Thráinsson (1993) attests that in Norwegian, the infinitival marker *á* appears in Control and ECM/Raising whereas finite clauses are introduced by *at*. In contrast, in Icelandic, the infinitival marker *að* appears both in Finite and Control complements (but never in ECM or Raising). The question arises whether Icelandic *að* is a Complementizer or an Infinitival marker, since it introduces both finite clauses with overt lexical subjects and infinitival clauses with PRO.

In order to be consistent with the claim in this paper, we would expect that lexical subjects are licensed when *að* is in Comp, and conversely, PRO should be licensed when *að* is in INFL.

(111)

|           | Finite | Control | ECM | Raising |
|-----------|--------|---------|-----|---------|
| Icelandic | að     | að      | Ø   | Ø       |
| Norwegian | at     | á       | á   | á       |

One asymmetry found between Finite and Infinitival complements in Icelandic reveals that Icelandic also conforms to the expected pattern. Evidence comes from Topicalization, which is allowed in finite complements (112) but not in Control (113) (Thráinsson (1993)). Let us elaborate on this. It has been suggested that Focus in Icelandic follows Comp (it is placed in [spec TP] according to Thráinsson (1992) or in a special Focus projection between CP and [Ags SP] (Bobaljik and Jonas 1992)). Thráinsson (1993) takes the asymmetry in (112-113) to be proof that Control predicates do not take CPs in Icelandic and that *að* is not in C in Control. Conversely, the possibility of having topics after *að* in Finite clauses provides evidence that *að* is in C. If this is correct, again we find that lexical subjects are licensed only when *að* is in Comp, namely, when Comp is full, and PRO in bare TPs.

- (112) Rísanrir segja [að á morgun, éti þeir ríkisstjórnina t<sub>j</sub>]  
 the-giants say that to-morrow eat they the government  
 ‘The giants say that tomorrow they will eat the government’

- (113) \*Risanrir lofa [að á morgun, éta ríkisstjórnina t.]  
the-giants promise to to-morrow eat the government

### 5.3. Summary

The inquiry into crosslinguistic data strongly suggests that lexical subjects are invariably licensed in CPs and that PRO appears in TPs. Regardless of the finite or infinitival nature of the clause involved, whatever strategy that the language has for filling Comp, it invariably correlates with lexical subject licensing. On the other hand, the null subject in Exhaustive Control (PRO) arises only when there is no Comp involved, i.e., in TP type complements.

## 6. The nature of the T-Probe

The second crucial ingredient responsible for the distribution of PRO/lexical subjects is the nature of the embedded T that is involved. It is traditionally believed that licensing lexical subjects, PRO and Raising involve different degrees of defectiveness in T in each instance. Specifically, Raising T is more defective than Control T, which, in turn, is more defective than T in lexical subject licensing. Focusing exclusively on Control and lexical subjects, I suggest that T in Control is Partial whereas it is Complete in lexical subject licensing. The key ingredient that differentiates them is the [person] feature that is only present in Complete-T.

Turning now to the distribution of PRO and lexical subjects, if all there is to their distribution is the requirement to satisfy Case (see section 4) we are left without an explanation of why DPs and PRO are in complementary distribution. A first descriptive pattern that may shed some light to this issue was identified in section 5, repeated in (114) below:

- (114) In complement clauses, lexical subjects arise in CPs, whereas PRO is licensed in bare TPs.

If Comp is relevant in licensing lexical subjects and in disallowing PRO, we need to determine what the precise contribution of Comp to the system is.

The Basque infinitival paradigm analyzed in section 4.1 will help us determine the precise contribution of Comp in licensing lexical subjects. There is an interesting asymmetry in infinitival complements in Basque: only embedded clauses that are marked with structural Case license lexical subjects (or pro) in the subject position of the embedded clause (115-116). Also, when the embedded clause is marked with structural Case, the matrix predicate displays agreement not only with matrix nominals, but also with the embedded clause as a whole (3-Absolutive). In contrast, EC predicates take complements marked with inherent Case, and only license PRO. In such instances, the matrix Auxiliary displays no agreement with the embedded clause (117-118). These correlations are stated in (119).

- (115) [John-E.....[DP..v.]-A...decide....Aux(3A-3E)]

- (116) [John-E..you-D..[DP..v...]-A..recommend..Aux(3A-2D-3E)]

(117) [John-A.....[PRO..v...] ...try.....Aux(3A)]

(118) [John-E you-A ...[PRO..v...] ...send....Aux(2A-3E)]

(119) PRO is licensed in clauses NOT marked with Structural Case, whereas DPs are licensed in clauses marked with Structural Case.

That the matrix Auxiliary displays agreement only with those clauses that are marked with Structural Case (115-116) is not surprising. As San Martin and Uriagereka (2002) note, there is a widely attested correlation whereby predicates only display person agreement with elements that are marked with structural Case, not with inherently Case marked arguments. Although the correlation between Structural Case and the Person system is well attested, it remains to be understood why and how the system uses this difference between Structural Case/person system vs. Inherent Case/no person system. For our purposes, we can say that Comp, by virtue of containing a Structural Case, includes a [person] feature in it in Basque. From this, we may conclude that the contribution of Comp to the system in Basque is that it endows the local T-Probe with [person]. In contrast, since there is no Comp in licensing PRO, it is reasonable to suppose that T in such instances is [-person].

The question is whether we can extend this proposal to other languages. One option is to suggest that, parallel to the Basque instances, all embedded clauses that license lexical subjects are Case marked with Structural Case. This is plausible in clausal gerunds that license lexical subjects, as discussed in Pires (2001), which are forced to move under passivization.

(120) I prefer [John reading the book].

(121) \*It is expected [John reading the book].

(122) [John reading the book] was preferred.

However, Pires (2001) argues that Clausal gerunds are best represented as TPs rather than CPs for two reasons: first, they disallow Complementizers in the embedded clause and second, short wh-movement to the embedded [spec CP] is disallowed. Nevertheless, the fact that Clausal gerunds may appear either in subject (123) or object position (124) strongly suggests that the clause itself is marked with Case. Since the Case marking is on the entire clause, it is reasonable to assume that Case is in the periphery of the clause, probably in Comp, as in Basque. If this is correct, clausal gerunds that license lexical subjects should also have a Comp that contains a [person] feature.<sup>19</sup>

(123) [His leaving the party so early] was a surprise.

(124) I prefer [his leaving the party].

<sup>19</sup> Notice that a parallel assumption can be made about inflected infinitivals in Portuguese, which license lexical subjects internally and only appear in Case marked positions according to Raposo (1987).

Conversely, we expect that, parallel to Basque EC instances, clausal gerunds that are complements of Exhaustive Control predicates do not contain Comp [person] because they are not marked with Case. The impossibility to passivize the clausal gerund itself in these instances (127) suggests that it needs no Case, which, in present terms, would indicate that T is [-person].

(125) John tried/avoided/started [PRO taking to Mary].

(126) \*John avoided/tried/started [Peter talking to Mary].

(127) \*[PRO talking to Mary] was avoided/tried/started.

Finally, support for the idea that Comp bears a [person] feature where lexical subjects are licensed comes from the extensive literature that corroborates that (i) some [person] feature related to point of view is involved in the periphery of clauses and (ii) in some languages Complementizers display agreement morphology with the subject itself as well as with the predicate (for dialects of German and Dutch see Bayer 1984, for West Flemish see Bennis and Haegeman 1984 and Haegeman 1990, 1992 and for Irish see McCloskey 1992a). The fact that Comp is placed in the periphery indicates that postulating a [person] feature in it is on the right track, and that the specific contribution of Comp to T is that it endows T with a [person] feature.

## 7. Explaining the facts

Case and the [person] feature seem to be the crucial ingredients that are involved in licensing PRO and Lexical subjects. As for the complementary distribution of PRO and lexical subjects, we know that the explanation cannot be related to Case. Rather, the distinguishing feature between Partial T and Complete T is the presence/ absence of the [person] feature. The next question is how this [person] feature contributes to the system so that PRO is only allowed with Partial-T and lexical subjects only with Complete-T. Notice that a complete understanding of the distributional problem will only be reached when we answer two distinct questions, namely those stated in (128-129) and illustrated by the examples in (130-133).

(128) Why is Partial T compatible with PRO (130) but incompatible with lexical subjects (131)?

(129) Why is Complete T compatible with lexical subjects (132) but incompatible with PRO (133)?

(130) John tried [PRO T-Partial to kiss Mary].

(131) \*John tried [he T-Partial to kiss Mary].

(132) John said [that he T-Complete kissed Mary].

(133) \*John said [that PRO T-Complete kissed Mary].

### 7.1. Why Partial-T is compatible with PRO but incompatible with lexical subjects

This section provides an answer to the question of why Partial T is compatible with PRO but incompatible with Lexical subjects. The answer will be straightforward once we analyze some aspects about the nature of the elements involved (PRO and lexical subjects) together with the notion Binding Domain stated in Minimalist terms.

It is a fact that all arguments but PRO have a minimal [person] feature. Pronouns and anaphors are themselves inflected for person and Names are invariably third person singular or plural. In contrast, there is no evidence that PRO has any features per se. Moreover, there is evidence that at least in one language, namely Hebrew, PRO has no [person] features. The argument goes as follows: in Hebrew, 3<sup>rd</sup> person null subjects (pro) are banned from all contexts except from controlled environments (Landau, forthcoming). Following Ritter (1995), Shlonsky (1997) suggests that in Hebrew, in contrast to 1<sup>st</sup> and 2<sup>nd</sup> null subjects, which contain a [person] feature, 3<sup>rd</sup> person pronouns do not contain a [person] feature. Assuming that pro is endowed with [person] features, the fact that 3<sup>rd</sup> person null subjects are banned from all contexts except from controlled positions suggests that the null subject in such instances is PRO rather than pro, and that PRO does not have [person] features.

In terms of the Binding properties, I will argue that PRO has no Anaphoric or Pronominal features either. The evidence comes from Binding Theory. To start with, in Binding Theory it is the feature composition of the element itself that determines the requirement that the element must meet in a given Domain. For instance, Anaphors are [+A, -P] and hence must be bound in its Governing Category. Conversely, Pronouns are [-A, +P] and must be free in their Governing Category, where Governing Category is defined as in (134).

- (134) Governing Category: the Governing Category of A is the Minimal Domain containing it, its governor and an accessible subject/SUBJECT  
 Accessible subject/SUBJECT:  
 Subject: NP in [Spec, XP]  
 SUBJECT: AGR.  
 Accessible subject/SUBJECT: A is an accessible subject/SUBJECT for B if the coindexation of A and B does not violate any grammatical principles.

In GB it was the feature composition of PRO as being simultaneously [+A, +P] that derived the fact that PRO had to appear in Ungoverned Positions (The PRO-Theorem). More specifically, PRO is anaphoric in OC (135) and pronominal in NOC (136). Thus, it was assumed that PRO was simultaneously [+anaphoric] and [+pronominal]. The only possibility in which it could meet these contradictory binding requirements was by not having a Domain. No doubt that the feature composition of PRO as being simultaneously [+A, +P] was not entirely justified, but it derived the empirical facts correctly.

- (135) He<sub>i</sub> tried [PRO<sub>i</sub> to abandon the investigation].

- (136) [PRO<sub>arb</sub> to abandon the investigation] would be regrettable.

Lasnik and Uriagereka (2005) argue that the notion Domain in Binding can be successfully redefined in Minimalist terms by replacing the notion Government with Probe. The definition is provided in (137):

- (137) X is the Binding Domain D for Y iff X is the minimal maximal projection which includes Y and Z, where Z is Y's Probe.

Interestingly, the distribution of PRO in GB and in the new Minimalist proposal in Lasnik and Uriagereka provides rather similar results. Technically, in GB, PRO in a sentence like (138) was not governed because Infinitival INFL was not considered a proper governor of PRO, and neither was the matrix predicate, because there was assumed to be a CP barrier that prevented outside Government of PRO.

- (138) John tried [<sub>CP</sub> PRO to bake a cake].

Turning now to the minimalist definition of Domain in (137), PRO does have a Probe with which it establishes a relation in its Domain. The reason is that PRO (the Goal) appears with a local Probe T that assigns Case to it. Thus, we can no longer maintain the idea that PRO does not have a local Probe in its minimal Domain. For a sentence like (138), this is represented as in (139).

- (139) John tried [ T-Partial.....PRO bake a cake].  
(Probe) (Goal)

However, this Probe is not a Complete Probe according to the discussion in the previous section that argues that Control T is a Partial Probe ([-person]). There is another non-local Complete Probe ([+person]) in the matrix clause, but minimality prevents probing an element when a more local one is available. This is represented in (140). The conclusion is that PRO does not have a Binding Domain.

- (140) [John.....T<sub><complete></sub>...v [TP .....T<sub><partial></sub>...PRO.....]]  
Minimality violation

The fact that both the GB version of Domain and the new Minimalist proposal provide the same result is intriguing, and suggests that the only position where PRO may appear is in a local relation with a Partial Probe. This does not solve the puzzle but does address the following question: if it is the feature composition of elements that determines the Binding condition that each element must meet, we must wonder what the feature composition of PRO might be that renders PRO possible in that position. The GB trick of considering PRO as [+A, +P] should be discarded. The reason is that, although PRO might appear in two distinct environments, one being [+A] and the other [+P], there is no reason to believe that PRO has both features simultaneously. One plausible alternative is that PRO does not have a Domain for Binding because it has no Binding Condition to meet. From this we may conclude that PRO does not have anaphoric or pronominal feat-

ures.<sup>20</sup> The final conclusion is that PRO does not have any phi, anaphoric or pronominal features.

To summarize, in this section I have suggested that PRO has no features. First, it has no phi-features per se. Second, PRO has no Binding Domain in the Minimalist version of Domain provided in Lasnik and Uriagereka, which suggests that PRO has no Anaphoric or Pronominal Features. At this point we do have an answer to the first question in (128), namely why, unlike PRO, lexical subjects are incompatible with Partial T. PRO is compatible with Partial T because, although Partial T prevents the definition of a Domain, PRO does not need one. In contrast, notice that all elements but PRO have certain Anaphoric and/or Pronominal features, which amounts to saying that they have some Binding Condition to meet in a Domain. However, in view of the fact that Partial T does not define a Domain, we may conclude that all nominals except PRO are incompatible with Partial-T precisely because they are unable to meet their Binding requirements in this context. In other words, Binding Theory would be violated and the derivation would cancel. Notice that the reason why PRO is not compatible with Complete T cannot be explained in the same terms. Complete T does define a Domain for Binding, but we know that PRO does not need one. In other words, no violation of Binding Theory occurs in such instances. In section 7.2 I will argue that PRO and Complete T are not compatible for independent reasons that have no relation to Binding Theory.

## 7.2. Why Complete T is compatible with Lexical subjects but incompatible with PRO

This section provides an answer to the second question, which will be straightforward assuming the mechanics of Control as Chain Collapse (Martin 1996, San Martin 2004) together with the observation in section 5.2.1 that PRO arises in TP complements rather than in CPs.

San Martin (2004 & forthcoming), along the lines of Martin (1996), suggests that the interpretation of PRO is the result of the need of the Chain of PRO to collapse with the Chain of the antecedent in order to survive at LF. There are several details in which the original proposal in Martin (1996) and the one presented in San Martin (2004) differ. However, in essence, the idea remains the same. For our purposes, the relevant question is why this mechanism is not available for PRO in contexts where the local Probe is Complete. In other words, we need to explain why (141-142) do not succeed:

- (141) \*John said that [PRO left].                      (142) \*PRO left.

At this point the descriptive generalization in section 5.2.1 becomes relevant: PRO arises in TP complements and not in CPs. In view of the fact that the control effect derives from Chain collapse, the relevant question is what prevents Chain collapse to take place when PRO is placed in CP-s. The key to the answer comes

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<sup>20</sup> Uriagereka (p.c.) notes that the question for my proposal is whether the logical possibility [+anaphor, +pronominal] in a binary system such as Binding theory does not exist, and if it does not, why.

from the standard assumption that CPs are Phases, namely objects that are evaluated for interpretation when they are completed. If PRO occurs within a CP, the Chain of PRO will be part of the object that will be sent for evaluation because it is not in the Head or the Edge of CP. Thus, at LF, the Chain of PRO simply does not have a local well-formed and interpretable Chain with which it can collapse and the Chain of PRO will violate FI. Notice that, although Complete-T does constitute a Domain for Binding, PRO does not need to satisfy any Binding requirements since it has no anaphoric or pronominal features. In other words, what is wrong with PRO being the Goal of a Complete-T has nothing to do with Binding Theory. Rather, PRO is not compatible with complete T because the Chain of PRO ends up without an interpretation at LF.

## 8. Summary and concluding remarks

This paper presents a proposal to account for the general fact that PRO and lexical subjects appear in complementary distribution. To begin with, that PRO and lexical subjects are Case-marked with regular Case suggests discarding both the Movement analysis of Control (Hornstein 1999, 2000) and the proposal for the distribution of PRO in Chomsky and Lasnik (1993) as valid on empirical and theoretical grounds. Specifically, if movement from Case-to-Case positions is banned by Last Resort, the embedded subject cannot have moved to the matrix subject position, as the former proposal suggests. On the other hand, if PRO receives regular Case rather than Null Case, minimalist considerations suggests dispensing with Null Case, which, after all, was exclusively related to PRO in the system.<sup>21</sup>

Within the inquiry into the problem of the distribution of PRO, I have identified two ingredients that are crucial in explaining the problem at hand. First, that the category of the embedded clause in each instance is different. Descriptively speaking, PRO and DPs exclusively appear in TPs and CPs, respectively. In other words, only DPs appear in Phases (CPs). Second, I have spelled out the traditional persistent idea that Control T is somehow more defective than T in relation to lexical subjects. Specifically, the former is ‘partial’ in the sense that it lacks the [person] feature that is present in the Probe that licenses lexical subjects, call it ‘complete’.

These two ingredients turn out to be crucial in the final explanation for the distribution of PRO and lexical subjects. Partial T is only compatible with PRO because, although it prevents the definition of Domain in Minimalist terms, PRO does not need one. Thus, since lexical subjects (anaphors, pronouns and R-expressions) need a Domain they are excluded from appearing with Partial T. Turning to Complete-T, the reason why it is only compatible with lexical subjects is not related to Binding. Complete-T involves CP, and CPs are Phases. If PRO ultimately needs collapsing with the Chain of the antecedent for surviving at LF, PRO and the antecedent need to appear in the same Phase. In other words, PRO is excluded from appearing in CPs because it would not have an antecedent with which to collapse.

One question that remains answering is why (143) does not succeed, with the meaning “John killed himself”. In other words, PRO does have an antecedent with

<sup>21</sup> Unless the system employs PRO in a general way, as suggested recently by Uriagereka (2004).



which it can collapse within the same Phase, and given the explanation for the complementary distribution between PRO and DPs above (143) should succeed. Notice that this is the traditional problem of why Subjects are only licensed in subject position. One possible answer is provided in San Martin (2004), and it relates to the way PRO enters the derivation. Specifically, it is suggested that PRO enters the derivation off-line, just when there is no other DP in the Numeration that can saturate the existing Theta Roles. In other words, the use of PRO is a Last Resort Operation. In embedded clauses with Transitive predicates as in (143), the derivation should employ the DP *John* from the Numeration first. In other words, the use of the Last Resort insertion of PRO would result in a violation of Last Resort.<sup>22</sup>

(143) \*Mary said that [John killed PRO]

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<sup>22</sup> See San Martin (2004 & forthcoming) for details concerning this proposal.

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