CONTROL THROUGH MULTIPLE AGREE

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Abstract: This paper studies the main properties of control from a minimalist perspective. After reviewing the possibility that control be analyzed as a case of raising (as argued for by Hornstein 1999 *et seq*.), I put forward an alternative account that takes obligatory control to obtain through Multiple Agree (*pace* Landau 1999, 2000), the controller (or antecedent) and PRO being Goals of the same Probe. In so doing, I further propose a Merge-based formulation of the Theta Criterion (whose elimination was key in order to support movement based treatments of control), and consider the consequences of the proposed analysis for Chomsky's (2000, 2001) Phase Impenetrability Condition.

Keywords: (Multiple) Agree, Control, Raising, PIC, Theta Criterion.

1. INTRODUCTION

If something defines minimalism as opposed to the GB framework is the theoretical flexibility it exhibits, typically associated to its "programmatic" nature. Minimalism allows one to approach linguistic phenomena from different angles (Chomsky 1993, 1995, 2000), which is both good and bad. Good because it makes it possible to explore analyses that depart from theoretical standards, which can always provide us with a fresh perspective (this is what happened in GB, where proposals made slight departures from the basic framework outlined in Chomsky 1981, 1986 and related literature). It is also bad, though, since proposals about the very same phenomenon may make assumptions that are so different and deep in nature that comparing them is virtually impossible, or simply uninformative to draw conclusions.

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For comments and discussion, I am grateful to Noam Chomsky, Tomohiro Fujii, Carme Picallo, Itziar San Martin, Roger Martin, and Juan Uriagereka. Special thanks to Norbert Hornstein for his open, thought-provoking, and encouraging attitude in conversations about linguistics over the years. Norbert was also generous to discuss some of the issues that are addressed in this paper over the e-mail. Although we do not agree about how control must be analyzed, I hope theoretical discussions like this one make us keep in mind that an important goal of minimalism (actually, of any serious approach to language that seeks to reduce stipulations) is to accept the possibility that there may be *more than one* plausible and adequate analysis for *the same* phenomenon, even when they are in apparent conflict. Finally, I would also like to express my gratitude to Alexandru Nicolae and Alexandra Cornilescu for their interest in this piece.

This research has been partially supported by grants from the Ministerio de Educación y Ciencia-FEDER (HUM2006-13295-C02-02), and from the Generalitat de Catalunya (2009SGR-1079).

RRL, **LVI**, *4*, p. 313–346, Bucureşti, 2011

Examples of the scenario I have just described abound in the literature of the last twenty years. Thus, whereas some still advocate for a unified and pre-syntactic lexicon (Chomsky 1995 *et seq*.), others propose distributed or post-syntactic lexicons (Boeckx 2010, Halle, Marantz 1993, Starke 2010, and others). Whereas some take labels to be dispensable (Collins 2002), others still assume they are crucial in syntactic representations (Hornstein 2009). Whereas some argue that the sequence of functional categories is part of UG (Cinque 1999, Starke 2010), others suggest that it is a reflex of principles that operate in the semantic component (Fortuny 2008). Whereas some regard variation as encoded in lexical items (Chomsky 2001, Kayne 2000, 2005, Biberauer *et al.* 2010), others accept syntactic variation (Baker 2008), and yet others restrict it to the morpho-phonological component (Chomsky 2010, Boeckx 2011). Whereas some propose that only CP and vP are phases (Gallego 2010a), others leave the door open for DPs and PPs (Chomsky 2007, Svenonius 2004, and Abels 2003), and others make every XP − or every application of Merge − a phase (Müller 2010, Epstein, Seely 2002). Whereas some treat structural Case as a reflex of φ-feature agreement (Chomsky 2000, 2001), others see structural and inherent Cases as assigned via some prepositional/aspectual head (Pesetsky, Torrego 2001, 2004, Svenonius 2002); and of course there are more approaches (see Legate 2008 and references therein). The list could go on and on, and I hope it is representative of how large and diverse in nature proposals can be.

But perhaps the phenomenon that illustrates this *laissez faire* nature of minimalism best is control. Ever since Hornstein (1999) first proposed that control should be analyzed as raising (i.e., involving NP movement into a Case position, and not PRO), a huge literature has emerged militating for and against this view (see Boeckx, Hornstein, Nunes 2010 for a recent summary). In this paper I will not provide a detailed review of all the pros and cons of Hornstein's bold and insightful analysis; instead, I would like to: (i) sketch an approach to control that aligns with Chomsky's (2000, 2001, 2004, 2008) framework of phases, (ii) focus on what theoretical assumptions make Hornstein's proposal incompatible with it, and (iii) discuss its consequences for the status of the *Phase Impenetrability Condition* (Chomsky 2000, 2001).

Following Chomsky (2004), I argue that the «Theta Criterion» (a key assumption behind the GB approach to control) can be recast as a consequence of the division of labour between External Merge and Internal Merge, which, according to Chomsky, reflects the duality of semantics. In particular, I defend that the hypothesis that a given syntactic object Σ receives one (and only one) theta-role follows from the fact that Σ can be externally merged once. I formulate this idea as follows:[1]

[1] The idea was first formulated in Gallego (2009: 45 fn 15), and later on developed in Gallego, Picallo (2010). See also Epstein *et al.* (2012) for related discussion as for why theta-role assignment must precede Case assignment.

(1) Theta Criterion (Merge-based definition)
Each argument bears one and only one theta-role because each argument is externally merged one and only one time

To the extent that (1) is correct, there is not need to invoke the «Theta Criterion» (and consequently Deep Structure either) to preclude an argument from receiving more than one theta-role. This follows from the way Merge operates. I consider such a possibility in this paper, developing an analysis of control couched in the theory of phases that will share some traits of Landau's (1999, 2000, 2004) – in particular, the idea that control involves (long-distance) Agree. I will take advantage of this discussion in order to develop Chomsky's (2008) modification of his Phase Impenetrability Condition (PIC), arguing that its role is just to capture the effects associated to the strict cycle. Under this conception of the PIC, Transfer simply marks the interior of phases unmodifiable, without removing it from the narrow syntax. This twist to Chomsky's original definition of the PIC will allow the matrix C to (long-distance) agree with both the 'controller' and PRO in a multiple fashion (in the sense of López 2007, Hiraiwa 2005, and others) without violating locality constraints. I will thus propose the following approach to obligatory control:

(2) Probe-Goal Control
a. α controls β if they are nominal Goals of the same Probe, and
b. either α or β is φ-defective
c. otherwise, α and β are obviative

The paper is divided as follows. Section 2 reviews the basic assumptions and properties of control made in the GB framework. In section 3 I consider two types of problematic aspects of control: those of GB analyses of control, and those of raising based accounts. Section 4 puts forward an analysis of obligatory control based on the idea that control is akin to binding, and thus requires Agree (Chomsky 2000, 2001, Landau 1999, 2000). Section 5 summarizes the main conclusions.

2. BASIC PROPERTIES OF CONTROL: FROM GB TO MINIMALISM[2]

Building on previous observations (most notably, by Rosenbaum 1967, 1970), the GB framework draws a crucial line between raising and control infinitivals (see Bouchard 1984, Chomsky 1981, Hornstein, Lightfoot 1987,

[2] Needless to say, what follows does not make justice to the properties, intricacies, and empirical findings of control. Since all I want is to outline the basics behind this phenomenon and how it was approached in the GB-MP transition, I refer the reader to Martin (1996), San Martin (2004), Landau (1999, 2000, 2004), Boeckx, Hornstein, Nunes (2010), and references therein for a much careful and throughout discussion.

Manzini 1983, Williams 1980, and others)[3]. As can be seen in (3), raising involves movement of an NP from a theta position into a Case position, while control (more precisely, obligatory control; henceforth OC) creates a construal relationship between an argument of the matrix clause and a null category that occupies the subject position of the infinitival.

(3) a. [$_{TP}$ Mourinho$_i$ seems [$_{TP}$ t_i to [$_{VP}$ t_i like Zidane]]] RAISING
b. [$_{TP}$ Mourinho$_i$ wants [$_{CP}$ [$_{TP}$ PRO$_i$ to [$_{VP}$ t_i hire Zidane]]]] CONTROL

Different empirical arguments were provided in order to defend the necessity of a null formative within the infinitival clause in the case of (3b), like the presence of subject-oriented modifiers and anaphors, all of which require a local, clause-bounded, antecedent (e.g., *They wanted [$_{CP}$ PRO to leave happy]*, *John needs [$_{CP}$ PRO to shave himself]*). Given the possibility for PRO to be interpreted as an anaphor or a pronominal (in OC and non-OC cases respectively), Chomsky (1981) suggested that this empty category should be defined as [+ anaphor, + pronominal], a contradictory statement that motivated the so-called «PRO Theorem»:

(4) PRO Theorem
If α is an empty category, then α is PRO if and only if α is ungoverned (equivalently, α is trace if and only if α is governed)
[from Chomsky 1981: 60]

The ungoverned status of PRO had a non-trivial consequence: PRO could not receive Case, which was consistent with the idea that the «Case Filter» applied to NPs with an overt realization in the PF component. The «PRO theorem» was resorted to in order to rule out the sentences in (5), which show how PRO is barred in positions governed by an overt C.

(5) a. Rubalcaba prefers [$_{CP}$ for {*PRO/him} to fight until the end]
b. Rubalcaba thinks [$_{CP}$ that {*PRO/he} has chances to win]

In the GB literature PRO was said to be 'controlled' by a c-commanding NP argument (be it subject or object; see (6a) and (6b)), or be arbitrary in interpretation (see (6c)), and the control dependency was marked through coindexation.

(6) a. Peter$_i$ wants [$_{CP}$ PRO$_i$ to abandon John] SUBJECT CONTROL
b. Peter told Mary$_i$ [$_{CP}$ PRO$_i$ to abandon John] OBJECT CONTROL
c. [$_{CP}$ PRO$_{arb}$ to abandon John] would not be fair ARBITRARY PRO

[3] The control vs. raising rivalry has also been present in determining the properties of modal verbs, an issue I put aside in this paper. See Wurmbrand (1999, 2004) and references therein for discussion.

Tacking stock, the basic GB ingredients in order to account for the properties of control were the very existence of PRO, the «PRO Theorem», c-command, and indices. In the context of minimalism, all the devices postulated in order to account for the nature of linguistic phenomena are subject to simplicity and conceptual necessity arguments, which impose conditions that, though present in previous models of generative grammar in one form or another, had not played such a paramount role.

Chomsky (1993) dispenses with government and indices, due to its redundant nature, which leaves little room for some core aspects of the GB analysis of control. Actually, Chomsky, Lasnik (1993[1995]) had already questioned (4) by arguing, on the light of data like (7) and (8), that "like other NPs, PRO contains standard Case as well as agreement features" (p. 119). The examples in (7) indicate that PRO has to move from a theta-position to the position occupied by *there*. As for the data in (8), they show that PRO needs something else apart from moving from a theta position into an ungoverned one.

(7) a. We never expected [$_{TP}$ there to be found {*PRO/many treasures}]
b. We never expected [$_{TP}$ PRO$_i$ to be found t$_i$]
(8) a. *PRO$_i$ to strike t$_i$ [$_{CP}$ that the problems are insoluble]
b. *PRO$_i$ to seem to t$_i$ [$_{CP}$ that the problems are insoluble]

From the data above, Chomsky, Lasnik (1993[1995]) concluded that "these anomalies would be overcome if PRO, like other arguments, has Case, but a Case different from the familiar ones" (p. 119). This is the so-called Null Case, licensed "[whenever] I lacks tense and agreement features […] by the infinitival element (with null agreement) and the head of Ing of gerundive nominals" (p. 120). Although Chomsky, Lasnik (1993) did not offer a full picture of their Null Case-based analysis of PRO, it was clear that it would have to depart from what was assumed in GB. Somewhat surprisingly, nothing specific about control was said in Chomsky (1993) either, nor any of the subsequent minimalist papers, where PRO is still taken to receive Null Case. This does not mean that there are not minimalist analyses of control: Hornstein (1999), Martin (1996), San Martin (2004), and Landau (1999, 2000, 2004) are notable examples, and there are more that deserve credit (see O'Neil 1997, Manzini, Roussou 1999, among others).

An obvious possibility to reformulate control into the minimalist picture is to collapse it with binding, and relate it to Agree. Though tempting, already in the GB era there were arguments against the idea of collapsing control and binding. For instance, as Chomsky, Lasnik (1993) noted, control is generally driven by a specifically designated argument (subject or object, as we saw in (6)), unlike binding. As (9b) shows, binding can involve adjuncts (or non-core arguments):

(9) a. John$_i$ told Mary$_j$ [PRO$_{\{*i/j\}}$ to leave]
b. John$_i$ told Mary$_j$ about {himself$_i$/herself$_j$}

This asymmetry is capitalized on by Boeckx, Hornstein, Nunes (2010) to support the idea that control is movement. From their perspective, (9a) is nothing but a standard case of minimality, ruled out because *Mary* intervenes between the deep and surface positions of *John*. Despite appearances, there are ways to tackle the problem raised by (9) with no need to invoke movement. To advance what I will defend in the next section, there are at least two factors that must be controlled for in these examples. One is the fact that the constituents that are bound and controlled are contained by an argument (the infinitival clause is the internal argument of *tell*) and an adjunct respectively.[4] The second factor concerns the existence of an operation, apart from *Move*, that can establish a non-local dependency between two elements, namely Chomsky's (2000, 2001) *Agree*. Given these differences, asymmetries are actually expected in (9). Since I address these technical issues in the following section, let us stop our discussion at this point.

In the preceding pages I have briefly (and probably inaccurately) sketched the main properties of control in the GB framework. In the next section I would like to focus on the conceptual problems that Hornstein (1999, 2003) attributes to GB approaches to control. I will argue that the most relevant one (i.e., the elimination of Deep Structure) does not necessarily entails that the movement theory of control (MTC) is to be preferred over a proposal that can recast the «Theta Criterion» without restoring Deep Structure.

3. RECASTING THE THETA CRITERION WITHOUT DEEP STRUCTURE

In this section I discuss the aspects of GB analyses of control that are most problematic from a minimalist point of view. After that, I turn my attention to the assumptions made by MTC practitioners, paying attention to those about which I am skeptical.

3.1. Problematic aspects of control in GB

In the simplest cases of OC, control can be defined as an anaphoric depencency between two NPs (a controller and PRO itself), subject to locality conditions. Just like binding. As noted in the preceding section, it is tempting to entertain this resemblance and take control to be a subcase of binding, which − we have seen − has been discarded on empirical grounds.

[4] I am assuming that verbs like *tell*, *speak*, and *inform* are unergatives, which entails that '*about* PPs' are not arguments (in the sense of Hale, Keyser's 1993 *et seq*. framework). Extraction facts in non-P-stranding languages support this possibility.

Interestingly enough, the conceptual problems for collapsing control and binding are not so strong, certainly not in those approaches where binding involves raising too (see Boeckx, Hornstein, Nunes 2007, Grohmann 2003, Kayne 2002, Hornstein 2007, and Zwart 2002). Before going into the details of the analysis I will assume for control, let us consider the premises of the GB approach to control that Hornstein (1999, 2003) questions.

(10) a. The lexical legitimacy of PRO (and more generally expressions that require a grammatical restriction, like bound pronouns or reflexives)
b. The status of Null Case (which is by definition exclusive of PRO)
c. The long-distance dependency between controller and PRO (which involves c-command and indices)
d. The «Theta Criterion» (which blocks movement into theta positions)

Although all the factors listed in (10) should be inspected and reconsidered before developing any alternative analysis of control, their relevance is not equivalent. While I agree that it is odd for a lexicon to have lexical items such as anaphoric pronouns, which make no substantive contribution (they seem to be mere grammar-internal formatives, with no semantic features other than those of the controller/binder), I think the idea of eliminating anaphors and PRO from the lexicon is too radical, for at least two reasons: first, reflexives do make a specific semantic contribution (they contain interpretable φ-features, and whatever one associates to 'sameness', a notion that can be expressed through different strategies cross-linguistically; see Uriagereka 1997)[5], and second, this idea forces us to assume that elements like *himself* (or *him*, with a bound variable interpretation) are always copies of another element. This requires departing from the standard conception of Chomsky's (1993) Copy Theory of Movement so that deletion of lower copies can give rise to partial deletion − or null deletion, in cases of so-called "backward control", to which I return in section 4.4. − under certain circumstances (see Grohmann 2003, Hornstein 1999, 2001, and Nunes 2004 for discussion)[6].

(10b) is murkier, for it is certainly *ad hoc* to have a variety of Case that is exclusively assigned to a dedicated formative, as Hornstein (1999) originally noted. Uriagereka (2006) concurs, suggesting that Null Case, much like partitive, is

[5] By the same logic, it is also problematic for a lexicon to have uninterpretable features. I assume that these features are a defining design trait of the language faculty, and not an imperfection that should be expunged from the lexicon. Similar qualms should apply to expletives.

[6] This provides a straightforward explanation for cases where binding and control are expressed through multiples copies of the same lexical item (see Boeckx, Hornstein, Nunes 2010: §4.5.4. for details). I assume that those cases are the result of the relevant languages having or not elements like reflexives and PRO in their lexicons. Since the presence of these elements is subject to parametric variation (e.g., Romance lacks long distance anaphors of the Icelandic sort; see Reuland 2005), the fact that the same lexical item is used should not be seen as an knock-down argument in favor of the MTC.

assigned to certain complements in a context-free configuration by V.[7] This is one possibility to get rid of (10b)'s oddity. Another way to go about this is San Martin's (2004) proposal that PRO receives not Null Case, but regular structural Case (see also Sigurðsson 1991, 2008, Bobaljik, Landau 2009, and references therein). San Martin (2004) shows this for Basque, where dative is an elsewhere Case, assigned only if a vP contains three DPs (regardless of the verb's valency). Thus, (11) shows that the infinitival clause contains two DPs, marked as absolutive and dative (*ogia* and *Mariari* repectively). As San Martin (2004) argues, this indicates that there is a third DP receiving ergative Case: PRO.[8]

(11) Jon [$_{CP}$ PRO Mariari ogia ematen] saiatu da (Basque)
John-ABS Mary-DAT bread-Det.ABS give-NOMIN-INN try AUX-3.ABS
'John has tried to give bread to Mary'
[from San Martin 2004: 112]

The same point can be made with Spanish, where accusative Case is a 'dependent' Case (in Marantz's 1991 sense). If accusative is assigned after nominative, then one must conclude that PRO receives nominative in (12); otherwise it is unexpected that the object of *encontrar* (Eng. find) assigns accusative, as the clitic *las* (Eng. (femenine) them) indicates.

(12) Juan quiere [$_{CP}$ PRO encontrarlas] (Spanish)
Juan want-3.SG find- CL-3.PL.ACC
'Juan wants to find them'

Let us now turn to (10c). It is not controversial to assume some version of c-command in order to capture the dependency between PRO and its controller, but indices must be dispensed with if we want to stick to Chomsky's (1995)

[7] Obata (2010: 96 and ff.) explores another route, arguing that, along with a Null Case assigning T, there is a Null Case assigning V. In her account, the object position of verbs like *wash* (and also *shave*, *dress*, and the like; see Martin 1996: 187 and ff.), is occupied by a PRO. Obata (2010) extends this analysis to *tough*-movement scenarios:

(i) John is eager to please PRO

Plausibly, not all tough-movement cases involve PRO. Examples like (ii), where *it*-replacement is possible, may involve actual movement (see Hartman 2009).

(ii) John is easy to please

(iii) It is easy to please John (cf. *It is eager to please John)

[8] Notice that, if PRO receives structural Case, then it is not possible to explain its null phonetic status (and that of NP traces more generally) in Hornstein's (1999, 2003) formulation, for Hornstein attributes this fact to the lack of Case. Boeckx, Hornstein (2006) and Boecx, Hornstein, Nunes (2010) account for the Case facts by suggesting that the variety of nominative that PRO receives is default, not structural. As for cases where the controller and PRO manifest a distinct Case value (nominative and quirky or vice-versa), these authors assume that the relevant NP is assigned Case twice, apparently overrinding freezing effects (and consequently licensing hyper-raising). See Bobaljik, Landau (2009) for discussion.

Inclusiveness Condition. As the reader may have guessed, Hornstein (1999, 2003) does so by proposing that PRO is actually a copy of the controller, which moves into the matrix clause in order to get Case. Although this proposal differs from the GB story, it is undeniable that it nicely and straightforwardly explains the interpretation of PRO and its null phonetic status. This is perhaps the most tempting and insightful aspect of Hornstein's analysis. Consider this in the derivation depicted in (13):

(13) [$_{TP}$ <John> T needs [$_{TP}$ <John> T to [$_{vP}$ <John> see Mary]]]
↑_____↑_____|
CASE-POSITION THETA-POSITION

Move can indeed capture the interpretive dependency behind control straightforwardly. Nonetheless, it is worth asking whether the same is true of Chomsky's (2000, 2001) *Agree*, a context-sensitive operation between a Probe and one (or more) Goal(s). One can of course say no by denying the conceptual and empirical validity of Agree altogether (this is what Chandra 2007 does), but resorting to Agree is nonetheless a possibility (and I come back to it in the next section).

Finally, consider (10d), which I take to be the most worrisome assumption of the MTC. Remember that an important trait of GB analyses of control was the key role of the «Theta Criterion», which implied the existence of n different theta-roles for n different arguments. Hornstein (1999, 2003) argues that, since the level of Deep Structure is eliminated from the architecture of UG (Chomsky 1993), there is no reason to keep the «Theta Criterion», nor any of its assumptions. Let us recall this GB module as defined in Chomsky (1981).

(14) Theta Criterion (GB definition)
Each argument bears one and only one theta-role, and each theta role is assigned to one and only one argument [from Chomsky 1981: 36]

The empirical contribution of (14) was that it could rule out the sentences in (15), where either an NP receives two theta-roles (*John* in (15a)) or the same theta-role is assigned to two NPs (*the city* and *the car* in (15b)):

(15) a. *John destroyed
b. *John destroyed the city the car

Hornstein's critique to the «Theta Criterion» concentrates on its first clause, not the second (if I interpret him correctly, he would account for (15b) by assuming that, say, *the car* cannot be inserted in the theta-position occupied by *the city*). Importantly, Hornstein follows Bošković (1994), Lasnik (1999), and Bošković, Takahashi (1998) in seeing theta-roles as features that can be checked, like other formal features

(agreement, Case, etc.). He thus assumes that movement can target theta positions, which is precisely what is needed to defend the MTC. With this discussion in mind, let us go back to (13). Under Hornstein's (1999, 2003) analysis, *John* moves from a theta position into a Case position, crucially going through another theta-position:

(16) [$_{TP}$ <John> T [$_{vP}$ <John> needs [$_{TP}$ <John> T to [$_{vP}$ <John> see Mary]]]]
↑_____↑_____↑_____|
CASE-POSITION THETA-POSITION (2) THETA-POSITION (1)

Hornstein (1999:78 and ff.) goes on to argue that the number of theta-roles a chain can receive is in fact potentially unbounded. Thus, it can receive one (as in (17a)), two (as in (17b)), three (as in (17c)), and more. In the examples below I indicate theta positions in bold.

(17) a. [$_{TP}$ John$_i$ T [$_{vP}$ arrived **t$_i$** early]]
b. [$_{TP}$ John$_i$ T [$_{vP}$ **t$_i$** wants [$_{TP}$ t$_i$ to [$_{vP}$ arrive **t$_i$** early]]]]
c. [$_{TP}$ John$_i$ T [$_{vP}$ **t$_i$** wants [$_{TP}$ t$_i$ to [$_{vP}$ arrive **t$_i$**] [$_{beforeP}$ before [$_{TP}$ **t$_i$** having dinner]]]]]]

This clearly departs from the Rizzi's (1986) «Chain Condition», which restricted the number of Case and theta positions per chain to one. Hornstein's (1999) point is largely conceptual, but well-designed: if Deep Structure is dispensed with, then its modules (X-bar theory, the Projection Principle, the Theta Criterion, etc.) should be dispensed with as well. This opens the door for theta-roles to be assigned via movement, which was ruled out by stipulation in GB: theta-role assignment takes place in Deep Structure, and by definition operates before grammatical transformations (i.e., Move). Though perfectly legitimate in and of itself, this conception of theta-roles as features is problematic on both empirical and theoretical grounds (as the reader can gather from the debate between proponents of the MTC and the PRO approach; see Hornstein 1999, 2003, Boeckx, Hornstein 2006, Bobaljik, Landau 2009, Boeckx, Hornstein, Nunes 2010, Landau 1999, 2000, 2003, 2004, and more).

The first empirical argument, which has not received much attention in the literature, comes from the observation that theta features have no morphological reflex. Thus, unlike in the Case realm, where morphemes may indicate whether a DP receives accusative (*-m* in Latin *puellam*; the girl$_{ACC}$), dative (*a* in Spanish *a María*; María$_{DAT}$), or ergative (*-ek* in Basque *Jonek*; Jon$_{ERG}$), to the best of my knowledge, theta-roles have no overt realization (there is no morpheme M indicating "α is a theme" or "α is an experiencer").[9] Of course, this can happen to be a mere coincidence, but it is nonetheless intriguing that theta features lack a PF realization.

[9] This situation holds only for so-called structural Cases (nominative-accusative, ergative-absolutive, and perhaps dative). As is well-known, inherent Cases (genitive, dative, commitative, allative, etc.) do reflect a theta-role morphologically. A potential counterexample is ergative Case, if it turns out to be inherent (see Albizu, Etxepare, Rezac 2011 and references therein for discussion).

In Chomsky (1995:312 and ff.), two additional arguments to divorce movement from theta positions are offered. This author first notes that there are no verbs like HIT and BELIEVE with the same theta structure of *hit* and *believe* but lacking accusative Case so that movement of *John* (to pick up a theta-role) is licensed, as in (18):

(18) a. $John_i$ [$_{VP}$ t_i [$_{V'}$ HIT t_i]]
b. $John_i$ [$_{VP}$ t_i [$_{V'}$ BELIEVE [$_{TP}$ to be t_i intelligent]]] [from Chomsky 1995: 313]

A second problem is raised by examples like (19), also discussed by Chomsky (1995).

(19) a. *[$_{TP}$ $John_i$ [$_{vP}$ t_i expects [$_{TP}$ t_i to [$_{vP}$ be [$_{vP}$ someone kissing Sam]]]]]
b. [$_{TP}$ $John_i$ [$_{vP}$ t_i expects [$_{TP}$ $someone_j$ to [$_{vP}$ be t_j kissing Sam]]]]

In (19a), Chomsky (1995) assumes that *John* is merged in the embedded [Spec, TP] position, which blocks movement of *someone*. Under the (currently abandoned; see Chomsky 2004) assumption that Merge is more economic than Move (Chomsky 2000), everything should be fine. Therefore – Chomsky concludes – (19a) is ruled out because *John* moves from [Spec, TP] to matrix [Spec, vP] in order to check a theta feature. (19b) is fine, on the other hand, since *John* starts its derivational life in a theta position and moves to a Case one. As Boeckx, Hornstein, Nunes (2010: 242-243) observe, this is not the only way to interpret the facts: the asymmetry can indeed be used to argue against movement into theta positions (as Chomsky does), but it could also be used to argue against DPs being first-Merged in non-theta positions (which is what Boeckx, Hornstein and Nunes appeal to).

Let me conclude by discussing two final empirical issues.[10] The first one concerns the Spanish example that Hornstein (2003) adduces to defend movement into

[10] There are more phenomena that strike me as problematic under Hornstein's MTC. Consider, for instance, the binding examples in (i) (assuming that binding and control are derived through movement), which is possible in Spanish:

(i) Se acusó a sí misma María (para salvar a Juan) (Spanish)
SE accused-3.SG to herself María to save to Juan
'María acussed herself (in order to save Juan)'

Here the anaphor *a sí misma* c-commands the binder, the subject *María*. Under the analysis of VOS sentences by Ordóñez (1998), the object undergoes A-movement to a position above the subject. Let us assume that this position is an outer specifier of vP. If this is so, it is unclear what type of derivation is needed to stick to the MTC. Presumably, the subject would be base-generated in object position, then move to [Spec, vP] to pick-up the Agent theta-role, and then move to the outer [Spec, vP], where the anaphor is spelled-out, as indicated in (ii) through (iv), where I use copy notation in the case of *María*:

(ii) [$_{TP}$ T . . . [$_{vP}$ <María> v [$_{VP}$ se acusó <María>]]]
(iii) [$_{TP}$ Se $acusó_j$ . . . [$_{vP}$ <María> [$_{vP}$ <María> v [$_{VP}$ t_j <María>]]]
(iv) [$_{TP}$ Se $acusó_j$ . . . [$_{vP}$ a sí $misma_i$ [$_{vP}$ $María_i$ v [$_{VP}$ t_j t_i]]]

It is at best unclear how any chain reduction/linearization algorithm (see Nunes 2004) should operate to obtain (iv) from the representation in (iii). Somehow it has to be the case that the higher occurrence is spelled-out as an anaphor, while the intermediate one is as a full-fledged DP. There may be means of achieving the desired result, but I fail to see a non-stipulative way of doing so.

theta positions. Attributing the examples to Bošković (1994), Hornstein (2003) notes that Chilean Spanish licenses the structures in (20).

(20) a. Marta le quiere gustar a Juan (Chilean Spanish)
Marta CL-to.him want-3.SG like to Juan
Marta wants Juan to like her
b. A Juan le quiere gustar Marta (Chilean Spanish)
to Juan CL-to.him want-3.SG like Marta
Juan wants to like Marta
[from Hornstein 2003: 24]

As Hornstein (2003) observes, the interpretation of these sentences is different: in (20b) *Juan* has two thematic functions, while in (20a) it only has one. Let us assume that this is correct, although in my own idolect (20a) and (20b) have the same thematic interpretation (in Peninsular Spanish, only *Juan le quiere gustar a Marta* has the intended reading for (20b)). Crucially, Hornstein (2003) compares (20b) − where, recall, *a Juan* is assumed to raise from the embedded [Spec, vP] position to the matrix one − with (21), a raising construction where *Al profesor* (Eng. to the teacher) is supposed to move, yet again, from its theta position.

(21) Al profesor le empezaron a gustar los estudiantes (Spanish)
to- the teacher CL-to.him began-3.PL to like the students
'The teacher began to like the students' [from Hornstein 2003: 24]

Hornstein's (2003) reasoning is as follows:

> These three facts together implicate movement from one theta position to another. The *a* case on *Juan* in [20b] indicates movement from the domain of *gustar*, whence the inherent case marking was effected. However, in contrast to [21], *quiere* has an external thematic argument to assign and in [20b] *Juan* clearly bears it as the gloss indicates. The obvious implication is that *Juan* has moved from the thematic position of *gustar* to a thematic position of *quiere* and thereby obtained a second theta-role, as Bošković (1994) concludes. [from Hornstein 2003: 24]

Not necessarily so. The crucial fact is that the quirky DP raises in a control scenario such as (20b) in the same way it does in a raising one (see (21)). But this could be equally consistent with *Juan* being generated in the [Spec, vP] of *quiere*, acquiring inherent morphology after matrix T agrees with quirky PRO. Such possibility is represented below.

(22) a. [$_{TP}$ Tφ [$_{vP}$ Juanφ v quiere [$_{CP}$ PRO$_{QUIRKY}$ le gustar Marta]]] (before Agree)
b. [$_{TP}$ T [$_{vP}$ **a** Juanφ v quiere [$_{CP}$ PRO$_{QUIRKY}$ le gustar Marta]]] (after Agree)

In other words, the idea is that *Juan* may become *a Juan* after matrix T long-distance agrees with *Juan* and PRO, in a multiple fashion (an option I will elaborate on below). Similar processes of Case transmission are found in other control structures of Spanish, as noted by Torrego (1998). Thus, in the object control example in (23), the object of *dejar* (Eng. allow/let) can be spelled-out in nominative (and accusative too, the unmarked situation), precisely the Case that PRO receives.

(23) Me dejas pedir yo? (Spanish)
CL-to.me let-2.SG ask I
'Do you let me order?' [from Torrego 1998: 118]

The final empirical argument brings us back to the reformulation of the «Theta Criterion». Recall that what Hornstein's MTC threatens is its first clause, which precludes multiple theta-role assignment to the same DP. Not much is said about the second clause, which blocks assignment of the same theta-role to different DPs. If one truly dispenses with the «Theta Criterion» entirely, then both clauses should run the same fate. If so, then it is not immediately clear why a sentence like (24), with an interpretation in which both *En Joan* and *la Maria* are agents of *voler*, is ruled out:

(24) *En Joan vol la Maria estimar (Catalan)
the Joan want-3.SG the Maria like
'Joan/Maria wants to love Maria'

To be more precise, it is unclear why *la Maria* cannot get the Agent theta-role of *voler* after *En Joan* does. The relevant derivation would be as in (25), where (25d) is the crucial step.

(25) a. [$_{vP}$ En Joan v [$_{VP}$ estimar la Maria]]
En Joan receives Agent theta-role from *estimar*
la Maria receives Theme theta-role from *estimar*
b. [$_{vP}$ En Joan$_i$ vol [$_{vP}$ t$_i$ v [$_{VP}$ estimar la Maria]]]
En Joan receives Agent theta-role from *voler*
c. [$_{TP}$ En Joan$_i$ T [$_{vP}$ t$_i$ vol [$_{vP}$ t$_i$ v [$_{VP}$ estimar la Maria]]]]
En Joan moves to [Spec, TP] to receive Case / check EPP
d. [$_{TP}$ En Joan$_i$ T [$_{vP}$ t$_i$ [la Maria$_j$ vol [$_{vP}$ t$_i$ v [$_{VP}$ estimar t$_j$]]]]]
la Maria moves to [Spec, vP] to receive Agent theta-role from *voler*

If theta-roles are features, and if they can be assigned to more than one DP, just like one DP can receive more than one theta-role, nothing should bar (25d). One may counter that *la Maria* is frozen in object position, and thus cannot tuck-in in [Spec, vP],

but this is not obvious, since *voler* allows for restructuring (and clitic climbing into the matrix clause). Minimality is not an option either, since the lower copy of *en Joan* does not intervene (like copies more generally, Chomsky 2000, 2001). Norbert Hornstein (p.c.) suggests that (25d) may be ruled out due to a violation of cyclicity, but this possibility is not bullet-proof, at least under a phase-based approach to the cycle, where certain counter-cyclic operations are allowed (e.g., φ-feature inheritance, raising to object/subject; see Chomsky 2007, 2008). So, to repeat, the derivation in (25) is ruled out, which is unexpected if both clauses of the «Theta Criterion» are equally dispensable.

3.2. Problematic aspects of the MTC

I would like to close this section with what I take to be the most conceptually problematic aspects of the MTC. I will focus on two (the nature of chains and the role of Merge at the interfaces), both of which have become relevant in the minimalist literature.

The first argument has to do with the nature of syntactic chains, a matter of much debate in the works of the last twenty years (see Boeckx 2003 and references therein). Roughly speaking, a general consensus has been reached according to which chains are the only objects that feed the external interpretive components, via the so-called interfaces Φ (PHON) and Σ (SEM) (see Chomsky, Lasnik 1993[1995: 45]). If we want the external components to receive legible objects, then a plausible hypothesis is for them to be unambiguous, giving one (and only one) instruction of the relevant type, as has been argued by Boeckx (2003), Richards (2010), Rizzi (2006), and others. A way to phrase this idea is Boeckx's (2003) *Principle of Unambiguous Chain* (PUC), an interface condition that can arguably be subsumed under Chomsky's (1986b) *Full Interpretation*:

(26) Principle of Unambiguous Chain
Chains must be defined unambiguously [from Boeckx 2003: 13]

For Boeckx (2003) chains are ambiguous if they contain more than one strong position (i.e., a position that requires creation of a specifier, plus feature checking). Boeckx (2003) argues at length that in cases where one element is forced to participate in more than one checking operation, the system resorts to additional strategies (resumption, multiple agree, etc.) so that the PUC is not violated. From a wider perspective, (26) can be applied not only to Case checking situations, but also to cases where interface demands must be met by transferred chunks of a derivation. Let us consider this in more detail, with respect to both Φ (PHON) and Σ (SEM). A rather natural assumption about PHON / Φ is that linearization of chains targets one occurrence, typically the highest one. In (27), the relevant Φ algorithm (based on

Kayne's 1994 LCA), has to decide which occurrence of *Mary* is to be spelled-out. If both copies of *Mary* were to be pronounced, the Φ component would collapse, as it would receive contradictory instructions (see Nunes 2004).[11]

(27) [$_{TP}$ <Mary> T [$_{vP}$ was [$_{vP}$ v promoted <Mary>]]]

Suppose we extend this view to interpretive effects such as theta-role assignment, binding, and discourse-oriented interpretations of the sort discussed by Rizzi (1997 *et seq*.). What I have in mind is, in the end, very likely an appropriately extended interface version of the «Theta Criterion». To make my point, consider (28), an example due to Juan Uriagereka (p.c.), where scattered binding of *which picture of himself and herself* is impossible:

(28) a. [$_{CP}$ Which pictures of himself and herself$_i$ did John and Mary think [$_{CP}$ t $_i$ [$_{TP}$ I saw t$_i$]]]?
b. *[$_{CP}$ Which pictures of himself and herself$_i$ did John think [$_{CP}$ t$_i$ [$_{TP}$ Mary saw t$_i$]]]?

The interesting case is (28b), where the anaphors *himself* and *herself* cannot be bound in the intermediate and lower clauses by *John* and *Mary* respectively. That is to say, one cannot break down the wh-phrase so that different chunks are interpreted in different positions 'for binding purposes'. Thus, one cannot have (29), where I use bold letters to indicate the material relevant for binding:

(29) *[$_{CP}$ . . . **John** . . . [$_{CP}$ <which pictures of **himself** and herself> . . .
. . . [$_{vP}$ . . . **Mary** . . . <which pictures of himself and **herself**>]]]

I take the ban on scattered binding to tell us that the part of the wh-phrase undergoing reconstruction cannot operate in two different positions, pretty much like a chain cannot contain two Case positions (e.g., **John seems that likes Mary*), nor two spelled-out occurrences (e.g., **Mary was promoted Mary*). The binding fact is similar to the effect in (30):

(30) *[$_{CP}$ Who thinks [$_{CP}$ that, which problem$_i$, Mary hates t$_i$]]?

[11] Chomsky (2008) regards the pronunciation of one copy as a process that minimizes computation in the phonological component. There are different answers to the question of why it must be the highest copy the one that feeds Φ. Chomsky (2008) argues that this is the most natural way for the operation to have a visible effect, while Nunes (2004) relates it to the idea that the highest chain is the one that has checked the relevant features. There are more complex situations, where apparently intermediate or even the lowest occurrence of a chain can be pronounced under certain circumstances (see Stjepanović 1999, Nunes 2004).

Rizzi (2006) convincingly argues that cases like (30) are ruled out because *which problem* cannot satisfy two different criteria (checking both Q and topic features), one of them in passing. For me the problem is the same of (27) and (29): Full Interpretation is violated when the same syntactic object provides different instructions of the same type.[12]

The final conceptual problem of the MTC is related to the semantic contribution of Merge at the interfaces. Until recently, the operation Move was seen as an imperfection, an extraneous mechanism combining three operations: Merge, Agree, and Pied-piping (Chomsky 2000, 2001). Chomsky (2004) gives a twist to such conception, arguing that Move is nothing but an instance of Merge. In particular, Chomsky (2004) advocates for two variants of Merge: External Merge (EM; where α and β are drawn from the Lexicon (or Lexical Array)) and Internal Merge (IM; when either α or β is drawn from a previously assembled syntactic object). Chomsky (2004) goes further and provides an interface rationale for the existence of these two varieties of Merge:

> The C-I system requires that SEM express a variety of semantic properties. These include at least argument structure; call such properties "theta-theoretic," without commitments to one or another version of interpretability at the C-I interface. But beyond theta theory, C-I makes use of other kinds of semantic information, including scopal and discourse-related properties (new/old information, specificity, etc.) […] The NS derivation therefore has to provide the basis for assignment of order at the SM interface, and for multiplicity of semantic properties at the C-I interface […] Let us […] reduce the multiplicity to duality: argument structure and everything else […]. There are two kinds of Merge (external and internal) and two kinds of semantic conditions at C-I […] We therefore expect them to correlate. […] Argument structure is associated with external Merge (base structure), everything else with internal Merge (derived structure). [from Chomsky 2004: 111]

If the correlation Chomsky suggests is correct, then there is a natural way of reformulating the «Theta Criterion» without having to resurrect Deep Structure. By definition, EM manipulates α and β only one time (upon selection from the Lexicon, which takes place only once), but IM can manipulate α and β as many times as needed (depending on our theory of (successive cyclic) movement). Therefore, the hypothesis that a syntactic object Σ receives one theta-role (an unambiguous thematic interpretation) can naturally be related to the fact that Σ is externally merged only once.[13] Let us then recast the «Theta Criterion» as follows.

[12] An alternative would be to say that the instructions given to the interfaces can be multiple, but restricted by phase. Under this possibility, a syntactic object Σ would be able to receive one theta-role per phase, and, for consistency, one discourse-position per phase, one linearization-position per phase, and one binding-position per phase. The empirical evidence that we have reviewed indicates that this is not what we find, and it is in fact untable even for those approaches where binding obtains through movement, since the same syntactic object Σ may receive two theta-roles per phase .

[13] There are potential counterexamples to Chomsky's (2004) correlation. Norbert Hornstein (p.c.) points out that phenomena like QR, wh-phrases base-generated in CP, and modal/negative/polarity scope are not products of movement. This is correct, and may require a minor qualification of Chomsky's

(31) Theta Criterion (Merge-based definition)
Each argument bears one and only one theta-role because each argument is externally merged one and only one time

What (31) tries to capture is the idea that the uniqueness of theta-role assigment can be deduced from the nature of EM, if one is willing to accept Chomsky's (2004) hypothesis about the duality of Merge correlating with the duality of semantics at the C-I interface.

Let us sum up. In this section I have reviewed the aspects of the GB analysis of control that Hornstein (1999, 2003) regards as suspect. I have concluded that, short of indices, most of them can actually be recast in a Deep Structure-free system. I have also underscored what I take to be suspect about the MTC: the idea that, once Deep Structure is erased, the «Theta Criterion» is too. As I have argued, this is not only empirically and conceptually problematic, it also departs from the correlation between Merge and the interfaces that Chomsky (2004) invites us to entertain. In the following section I sketch an approach to control couched in the framework of phases. Although I will not be able to present a comprehensive analysis of all the control facts − I do hope the analysis suffices to cover the basic data of OC −, I will briefly suggest how this proposal carries over to specific subcases (partial control, non-obligatory control, etc.).

4. WAYS TO CONTROL: MOVE OR AGREE?

In this section I argue that control must be seen as a subcase of binding, developing the Probe-Goal analysis of binding put forward in Gallego (2010b). Consequently, I endorse Landau's (1999, 2000, 2004) proposal that control requires Chomsky's (2000, 2001) Agree, but I will departing from the specifics of his analysis. Given the relevance of binding for my approach to control, I will briefly summarize my 2010b analysis, and I will then extend it to control.

4.1. Binding through Agree

The gist of Gallego (2010b) is that binding can be recast under Chomsky's (2000, 2001) Probe-Goal framework. This analysis pays special attention to two observations: first, if α and β engage in a binding dependency, they must agree in

suggestion. Notice that Chomsky phrases his hypothesis as an 'expectation', not an 'axiom'. What one calls "argument structure" must combine elements that can provide the relevant theta-theoretic notions: thus, EM of *John* and *dance*, provides such interpretation, but EM of, say, C and TP, does not. Moreover, it is not only the fact that some instances of EM provide discourse oriented interpretations (as Hornstein correctly points out), also some instances of IM fail to provide scope (copies left in intermediate positions, cases of IM due to labeling failures; see Chomsky 2011, Ott 2011). For proposals where scope and discourse dependencies are treated as analogous to argument structure, see Demirdache, Uribe-Etxebarria (2000) for tense/aspect, Hornstein, Uriagereka (2002) for QR, Gallego (2009/In progress) for the left periphery.

nominal (φ) features, and second, one of those elements must be φ-defective. The fact that anaphors and their antecedents must manifest gender (32a), number (32b), and person (32c) agreement is well-known (see Lebeaux 1983):[14]

(32) a. Peter combed {himself/*herself}
b. John shaved {himself/*themselves}
c. Henry defended {himself/*yourself}

The φ-defective status of one of the elements that establish binding is also a fairly standard observation (see Burzio 1986, 1991). An important component of Chomsky's (2000, 2001) analysis of Case assignment is the assumption that functional categories can be selected having a partial or complete set of φ-features. In Chomsky's terms, these elements can be φ-complete or φ-defective. The main consequence of morphological defectiveness is that it disables φ-defective Probes (e.g., unaccusative v) to assign structural Case. In Chomsky (2000, 2001), φ-defectiveness is restricted to Probes (lacking person, number, or both).

In the recent literature, however, one can also find references to the idea that Goals (i.e., DPs in the search space of a φ-Probe) can be defective. This happens in the case of *there*-type expletives and Romance SE (D'Alessandro 2007, López 2007, Raposo, Uriagereka 1996). This idea has also been explored with respect to pronouns (see Cardinaletti, Starke 1999, Déchaîne, Wiltschko 2002, and Roberts 2010). In the context of binding, this very claim was made by Burzio (1986, 1991), who proposed that anaphors are feature-less elements. The φ-defective status of Romance anaphors is shown in the chart below. As can be seen, contrary to first and second person pronouns, the Spanish anaphor *se* offers neither number nor gender distinction:

(33) Reflexive / Reciprocal pronouns in Spanish

	NUMBER	
PERSON	SINGULAR	PLURAL
FIRST	me	nos
SECOND	te	os
THIRD	se	se

The paradigm above has been analyzed in different ways. Whereas all linguists agree that anaphors are φ-defective, some take them to be totally defective (having no φ-features at all; see Burzio 1986, 1991), and others take them to be partially defective (having just [person]; see Cinque 1988, D'Alessandro 2007, López 2007, Raposo, Uriagereka 1996). Here I will assume that anaphors contain

[14] The idea that binding participants must agree was also entertained by Chomsky, Lasnik (1993 [1995: 104]), who regarded the process of reflexive cliticization as a syntactic process that places the reflexive in a position sufficiently near to its antecedent.

the minimal φ-specification: (underspecified) person (see Gallego 2010b for qualifications). In a system like Chomsky's (2000, 2001) this entails that the φ-complete Probe launched from transitive v will not be able to receive a value, nor assign Case to the internal argument. This will turn an otherwise transitive vP into a defective domain, akin to unaccusative or passive vP. Such prediction is confirmed by the auxiliary selection facts in Italian: when anaphors show up, the auxiliary verb required is *essere* (Eng. *be*).

(34) a. Gianni si è visto (Italian)
Gianni AN be-3.SG seen
'Gianni has seen himself'
b. Io mi sono visto (Italian)
I AN be-1.SG seen
'I have seen myself' [from Burzio 1991: 85]

In the derivation of (34), both v and the anaphor create an incomplete and complex feature dependency (what López 2007 refers to as *Co-Valuation*, which is analogous to Hiraiwa's 2005 *Multiple Agree*) that has to be valued by a higher Probe: C-T. Consider the derivation of a sentence like (35) in (36):

(35) John shaved himself

(36) a. $[_{vP}$ John $v_{[person:] [number:]}$ $[_{VP}$ shave himself$_{[person:3]}$]]
b. $[_{vP}$ John $v_{[person:3] [number:]}$ $[_{VP}$ shave himself$_{[person:3]}$]]
c. $[_{CP}$ $C_{[person:3] [number:]}$ $[_{TP}$ John$_i$ $[_{vP}$ t_i $v_{[person:3] [number:]}$ $[_{VP}$ shave himself$_{[person:3]}$]]]]

In (36a), the Probe-Goal dependency fails to value v's number, since the anaphor is φ-defective. In the CP phase, the φ-Probe on C scans its domain, matching not only the external argument (as in regular transitive sentences), but also the anaphor, and crucially v too. This results in a multiple dependency whereby the Goal is a 'complex entity' (a 'multiple Goal'), formed by the antecedent and the anaphor. The important thing to note is that *John* and *himself* are formally collapsed, being treated by the Agree procedure as the same unit. I formalize this as follows:

(37) Probe-Goal Binding
a. α binds β if they are Goals of the same Probe,
b. otherwise, α and β are obviative

Under this Probe-Goal analysis, antecedent and anaphor establish an agreement dependency via the Probe. Note, however, that the logic in (37) does not force the antecedent to c-command the anaphor: the only c-command dependency (Chomsky's

2008 narrow definition of c-command) is that between C and the antecedent-anaphor cluster[15]. This covers Condition (A). What about Condition (B)? Consider the example in (38), where *John* and *him* must be obviative (locally):

(38) John$_{\{*i/j\}}$ shaved him$_i$

Given (37), the fact that *him* cannot be bound by *John* follows from their having different Probes. In a sense, the key for *John* and *him* to be obviative has to do with the absence of the collapsing effect that Multiple Agree yields: since *John* and *him* have a different context (established by the Probes C and v), and are formally distinct (being assigned nominative and accusative respectively), they are semantically distinct as well.

Let us stop. In this section I have briefly summarized the analysis of binding sketched in Gallego (2010b). Following Chomsky (2000, 2001, 2008), I have argued that an element is locally A-bound if it and its antecedent are both matched by the same Probe. If such multiple dependency is not created—as is the case in local obviation—, then binding cannot obtain. Notice that, to a large extent, what this theory is saying is that the interpretation of a DP is parasitic on its Probe, which tokenizes it by means of Case. If two DPs receive a different tokenization (nominative vs. accusative), then they must be formally (and interpretively) different. In the following section I extend this analysis to cases of OC.

4.2. Control through Agree

Consider the examples in (6) again, repeated here for convenience:

(39) a. Peter$_i$ wants [$_{CP}$ PRO$_i$ to abandon John] SUBJECT CONTROL
b. Peter told Mary$_i$ [$_{CP}$ PRO$_i$ to abandon John] OBJECT CONTROL
b. [$_{CP}$ PRO$_{arb}$ to abandon John] would not be fair ARBITRARY PRO

As I have already advanced, my claim is that the dependency between *Peter* and PRO in (39a) and (39b) − I will come back to (39c) later − should be akin to that of *John* and *himself* in the examples discussed in the previous section. For this to be possible we need matrix C or v to agree with both *Peter* and PRO, as depicted in (40):

[15] The collapsing effect that we have just discussed is also appealed to, in different terms, by Reuland (2001) and Uriagereka (1997), who argue for a process of Chain Fusion that has the same effect that Hiraiwa's (2005) Multiple Agree and López's (2007) Co-valuation have: it renders the formal features of the antecedent and the anaphor indistinguishable.

(40) a. [$_{CP}$ C [$_{TP}$ Peter$_i$ T [$_{vP}$ t_i v wants [$_{CP}$ PRO to abandon John]]]]
b. [$_{CP}$ C [$_{TP}$ Peter$_i$ T [$_{vP}$ t_i v told [$_{VP}$ Mary [$_{CP}$ PRO to abandon John]]]]]

Given the similarities between binding and control, PRO could be treated as a species of anaphor, hence φ-defective. This is precisely the proposal by Martin (1996:§3.2.1. and 3.3.3.), who argued that PRO is a SE-type silent clitic that undergoes movement to matrix T. Martin's (1996) analysis follows Chomsky's (1986, 1993) idea that the "self" part of *himself* (covertly) raises to Infl in English, just like SE does in Romance (overtly). Notice that we do not need to resort to movement, as long as Multiple Agree is available, but the key idea I want to embrace is Martin's (1996). Let us thus assume (41), a minimal modification of (37):

(41) Probe-Goal Control (first version)
a. α controls β if they are Goals of the same Probe,
b. otherwise, α and β are obviative

The proposal has advantages, but also problems. Let us start with the former. The first appealing aspect of a Probe-Goal analysis of control is that it collapses this dependency with binding, thus simplifying the apparatus needed to account for two phenomena that involve the same basic fact: a local anaphoric relation between two nominals. A second consequence of an Agree analysis is that it explains both why PRO must be bound by the closer DP, as in object control cases (Rosenbaum's 1967, 1970 *Minimal Distance Principle*).[16] In (39b) *Peter* cannot bind PRO because *Mary* acts as a syntactic intervener (in the sense of Rizzi 1990, Chomsky 2000, and others) between matrix v and PRO.

Let us now explore the possibility that an analysis based on (41) can be extended to three particularly intricate cases of control: (i) control into adjuncts, (ii) non-obligatory (i.e., arbitrary) control, and (iii) partial control.[17] For adjunct-control cases, all that is required is for the PRO within the adjunct to be the Goal of the relevant matrix Probe. Following a suggestion by Noam Chomsky (p.c.), I would like to argue that control obtains in the same way it obtains in the binding case of (42), which takes place if the adjunct becomes probeable after cyclic transfer.[18]

[16] It also explains why PRO cannot be a syntactic object in OC cases. If it were, the subject (of the infinitival) would intervene.

[17] In Hornstein's (1999, 2003) proposal, adjunct-control configurations require that movement out of adjuncts is legitimate (despite their strong island status, which in turn requires adopting Nunes' 2004 Sideward Movement). As for non-obligatory control, Hornstein (2003:49-50) proposes that such cases do not involve PRO, but an arbitrary pro.

[18] See Chomsky (2004: 118−119) for the idea that adjuncts become set-Merged after transfer to the interfaces, by means of an operation dubbed SIMPL, which turns a pair-Merge configuration, <α, β>, into a set-Merge one, {α, β}.

(42) John$_i$ just thinks [$_{PP}$ about himself$_i$]

Consider non-obligatory control next, which obtains when PRO has no controller and receives a generic or arbitrary interpretation:

(43) a. [$_{CP}$ PRO$_{arb}$ Reading the papers] was required to pass
b. [$_{CP}$ PRO$_{arb}$ Saying those things] does not matter

Since I assume Martin's (1996) hypothesis that PRO is like Romance SE, the non-obligatory interpretation of PRO in (43) should be available to SE too. As the data in (44) show, this is in fact what we find. The non-obligatory control reading is the silent variant of what is called 'impersonal (SE)' (see D'Alessando 2007), a construction where SE is interpreted as an indefinite (with the rough meaning of 'someone' or 'everyone' in (44a) and (44b) respectively).

(44) a. Se han llevado el coche, porque no lo veo (Spanish)
SE have-3.PL taken the car because not CL-it see-1.SG
Someone took the car, as I don't see it
b. En España se gasta demasiado dinero (Spanish)
in Spain SE spend-3.SG too-much money
People spend too much money in Spain

Notice that this interpretive difference follows from the fact that whatever Probe matches PRO here, it does not match another DP that can be used to anchor its reference. Raposo, Uriagereka's (1996) analysis nicely captured this interpretive asymmetry between 'anaphoric SE' and 'impersonal SE' by arguing that whereas the former inherits the φ-features of the subject, the latter, starting off in [Spec, vP], cannot be c-commanded by a DP from which it can inherit φ-features. Impersonal SE, therefore, receives the poorest feature specification − only [human], [indefinite], according to Raposo, Uriagereka (1996).

What about partial control? Relevant cases are like that in (45) (see Landau 1999, 2000), where PRO is interpreted as including both the controller and someone else:

(45) The manager$_i$ wants [$_{CP}$ PRO$_{i+j}$ to meet at 7]

These cases pose a problem for Hornstein's (1999, 2003) MTC, since the Copy Theory of Movement cannot explain this interpretive fact. From the perspective entertained here, what we expect is for binding to manifest similar situations, and again that is what we find. Consider the following examples:

(46) Nos veo fregando platos (Spanish)
CL-us see-1.SG washing dishes
'I see us washing dishes'

In the example in (46) the pronoun *nos* is partially bound by the subject. Descriptively, the subject and the object match in person (not number), and partial binding obtains.

Let us now turn into the problems of this approach. Needless to say, all the problems that can be attributed to Landau's (1999, 2000, 2004) approach can be attributed to the present proposal too. For reasons of space, I would like to concentrate on three particularly relevant objections. The first one concerns Case. As we have seen, PRO is controlled because it agrees with a higher DP, both of them being Goals of the same φ-Probe (be it C or v). We have also seen that the Case of PRO is an unsettled issue: for some, it has no Case (Hornstein 1999, 2003); for others, it has Null Case (Chomsky, Lasnik 1993[1995], Martin 1996); and yet for others it has structural Case (Sigurðsson 1991, 2008, Bobaljik, Landau 2009, Landau 1999, 2000, San Martin 2004). One obvious problem for a Multiple Agree approach to control is that the controller and PRO can bear different Case specifications, as the example below indicates:

(47) A en Joan li agrada [$_{CP}$ PRO sentir música clàssica] (Catalan)
to the Joan CL-to.him like-3.SG listen music classical
'Joan likes listening to classical music'

Here *A en Joan* and PRO bear different Cases: inherent (assigned by the psych-verb *agradar*) and either null or nominative respectively. This poses a problem under the expectation that the Goals of the same φ-Probe must receive the same Case value. A way to get around this issue is to emphasize that the φ-Probe only requires matching in φ-features, Case assignment being the product of such dependency, plus additional morphological factors. This is what we have in (47) (assuming that PRO and *Joan* match in φ-features), but the question still remains as to why the DPs manifest different Cases. Such mismatches typically arise with psych-verbs, which assign quirky Case. If we follow Chomsky (2000, 2004) in that quirky is inherent + structural Case, then a way to understand (47) is to assume that *A en Joan* and PRO have the same structural Case, even though the former DP manifests morphologically inherent Case. Notice that the same should be said for object control situations: *Mary* and PRO in (48) should both receive accusative.[19]

[19] In Gallego (2010a) I extend the same analysis to those subjunctive clauses where the subject is bound by the object of the main clause:

(i) Le pedí a Juan que limpiase la habitación (Spanish)
CL-to.him asked-3.SG to Juan that clean-up-SUBJ-3.SG the room
'I asked Juan to clean up the room'

In examples like (i), I argued that embedded pro receives abstract accusative, even though it manifests itself as nominative, which I attribute to the fact that it is 'trapped' in the C __ T context.

(48) [$_{vP}$ Peter v told **Mary$_{ACC}$** [$_{CP}$ **PRO$_{ACC}$** to abandon John]]
| _____↑_____↑

The second problem I would like to consider arises when the locality constraints that Agree is subject to are taken into account. Chomsky (2000, 2001) argues that at the end of every phase, a given portion of the syntactic structure is handed over to the interpretive components, and is thus rendered invisible for computational purposes. The operation that takes care of this is Transfer, and its effects are encoded in what Chomsky calls the *Phase Impenetrability Condition* (PIC).

(49) Phase Impenetrability Condition
In phase α with head H, the domain of H is not accessible to operations outside α; only H and its edge are accessible to such operations
[from Chomsky 2000: 108]

The PIC restricts the search space of a Probe by removing the complement domain of previous phases from the narrow syntax. Assuming that control infinitivals are phases (Chomsky 2000, 2001), then PRO should not be visible to a matrix Probe, since it occupies the complement position of embedded C. There are three solutions: (i) an Agree based analysis of control is wrong, (i) PRO moves, and (iii) the PIC version in (48) is wrong. I discard (i), for obvious reasons. Martin (1996) advocates for (ii), suggesting that PRO (PRO/SE) cliticizices into matrix T. Although Martin's (1996) solution is appealing (and compatible with everything I have said), I will not adopt it, for the evidence for PRO-cliticization in these cases is not strong. I will thus assume that the PIC must be relaxed, allowing for Probes to scan into previously transferred domains.[20] This is a weak conception of the PIC (akin to Uriagereka's 1999 conservative Spell-Out), whereby the syntactic material is transferred to the interfaces, but left in the syntax[21].

This 'relaxation' of the PIC is actually suggested by Chomsky (2007, 2008), and entails that the key consequence of transfer in a phase by phase fashion is to capture the computational justification for the strict cycle: for that it is sufficient that Transfer marks the phase interior as unmodifiable. The proposals in Chomsky (2000, 2001) take this to mean that the entire syntactic object is removed from narrow syntactic computation, but the strict cycle − the computational intuition behind Transfer − requires only something weaker, as Noam Chomsky (p.c.) notes: namely that no later operation applies to the interior of the phase that has been passed (no IM, for example). Note, in this respect, that although the interior of a phase cannot be modified, it can be

[20] One other possibility, consistent with the present approach, is that control CPs are defectives, like Romance subjunctives (see Gallego 2010a). This may explain why clitic climbing is allowed in these contexts, at least under the assumption that clitic climbing is A-movement out of a defective domain.

[21] Notice that this is different from Chomsky's (2001) version of the PIC. Such version was also less strict that the one in (48), but it was shown to be problematic by Epstein, Seely (2002).

inspected, as there is nothing to prevent a Probe from "looking into" a phase, not affecting anything there, but (potentially) affecting something outside the phase.

There are several interesting cases to consider under this conception of the PIC. Chomsky (2011) pays attention to the inherent nominative object of an experiencer verb (e.g., $John_{DAT}$ likes $Mary_{NOM}$). In these cases, Chomsky assumes that the psych vPs is a phase, but the internal argument is matched by matrix C for φ-feature valuation purposes[22]. This technical option solves the Case matching problem. Under this weaker version of the PIC, PRO can receive Case within the CP (be it null or structural), and still be visible to any upstairs Probe.

The third and final issue I want to explore concerns one of the problems that Hornstein sees in an Agree-based analysis of control. Since this point attacks the very heart of the present proposal, it must be addressed:

> There is another conceptual point I would like to briefly make […] Why should multiple agreement code control? In particular why should the fact that two DPs (one a PRO) both agreeing with the same functional head or both agreeing with different functional heads that agree with each other lead to control? Note, the question is not *could this be the case*? We can stipulate anything we want. The question is why it *should* be so. Why should multiple agreement operations set up control relations especially when the agreement is quite indirect? Clearly this is not so for other cases of multiple agreement. There is no conceptual reason that I can see why it should be so here. Let me put this another way. Landau (1999) seems to tacitly hold the following in order to get the relevant antecedent relation from AGREE: A and B agree iff A is the antecedent of B or B is the antecedent of A […]. Let me say this one more way. On a movement theory, control is the reflex of chain membership. In particular, it is the reflex of a chain's spanning multiple thematic positions. Control holds because of the Copy operation is defined over identical instances of the same expression. On Landau's (1999) proposal, control is a reflex of AGREE but it is not clear why AGREE should have the power to establish antecedence. [from Hornstein 2003: 40]

Hornstein is making a fair and very sensible point, one about which we should have something to say if we want an Agree-based story of control to be plausible. Hornstein (2003) is right in pointing out that there is nothing inherent to Agree that makes two syntactic objects participating in such dependency to be understood as one and the same − things are different with Copy, for this operation manipulates occurrences of the same syntactic object, making identity fall into place at once. The examples in (50) contain different elements that agree, but clearly the do not participate in control/binding dependencies. In (50a), for instance, *pudieron* agrees with *arrestados*, *muchos*, and *criminales* in number and person, and *arrestados*, *muchos*, and *criminales* further agree in gender; yet no binding or control dependency arises.

[22] Noam Chomsky (p.c.) assumes that Nominative Case is inherent, assigned by psych V. In previous approaches (Chomsky 2001), this instance of nominative was taken to be assigned by C.

(50) a. Pudieron ser arrestados muchos criminales (Spanish)
could-3.M.PL be arrested-M.PL many-M.PL criminals-M.PL
'Many criminals could have been arrested'
b. Los soldados fueron evacuados (Spanish)
the-M.PL soldiers-M.PL be-3.PL evacuated-M.PL
'The soldiers were evacuated'

The fact that control does not obtain in examples like those in (50) − and many others − despite Agree being resorted to might be taken to support the MTC, or at least to question the present approach. But there are good reasons to reject such conclusion. Firstly, the syntactic objects participating in control or binding must be of the relevant kind, which for concreteness I understand as them being DPs. From this it follows that although nouns, determiners, verbs, participles, and adjectives may (multiply) agree, they cannot trigger control / bind each other. Secondly, an important aspect of binding as opposed to correference is that the first type of dependency is strictly local and obligatory. The same holds for OC. It must therefore be the case that PRO is defective, like anaphors are[23]. Following Martin (1996), I assume PRO is akin to SE, and thus contains just unvalued person[24]. Being φ-defective, it is expected for OC PRO to behave like an anaphor, and, more importantly with respect to Hornstein's (2003) question, it makes sense for it to acquire the reference of (i.e., be "controlled" or "bound" by) another DP. Given these observations, it is necessary to revise (41) as follows (I use bold letters to indicate the changes):

(51) Probe-Goal Control (final version)
a. α controls β if they are **nominal** Goals of the same Probe, and
b. either α or β is φ-defective;
c. otherwise, α and β are obviative

[23] This possibility is compatible with the empirical observations made by Cecchetto, Oniga (2003). As these authors noted, PRO can agree with some clause-mates, in Latin and other languages:

(i) Iubeo te PRO esse bonum (Latin)
order-1.SG CL-to.you be good-MASC.SG
'I order you to be good'
(ii) (Ego) volo PRO esse bonus (Latin)
I want-1.SG be good-MASC.SG
'I want to be good'

Cecchetto, Oniga (2003) use these data to argue against Null Case, which, as we have already seen, is independently worrisome. The facts in (i) and (ii) indicate that PRO carries the same Case of its controller, which follows from a Multiple Agree story (despite intricacies pointed out in Bobaljik, Landau 2009). Note that this does not entail that *bonus* / *bonum* agrees with PRO clause internally, for agreement can take place across the CP boundary.

[24] Recall that for Martin (1996) SE/PRO had to raise to matrix T for control to obtain. This is not necessary if agreement can take place at a distance.

(51) now captures the precise conditions for control (and binding) to emerge, and why Agree may be behind it. From the perspective adopted here, what Agree does in the relevant situations is collapsing two (or more) syntactic objects so that the interface cannot formally distinguish them. As Uriagereka (1997) first argued with respect to binding, if two objects are formally undistinguishable, it is rather natural that the semantic component treats them as interpretively undistinguishable too.

4.3. A note on backward control

In this final section I would like to briefly consider an apparent case of backward control in Spanish (see Hernanz 1990, 1999 for discussion). The relevance of this is clear the moment backwards control, in the sense of Polinsky, Potsdam (2002, 2006), is taken to reinforce the MTC. The data are as follows. Let us start by considering (52), which contains a standard control situation. Here (52b) is the interesting case, for one may argue that *María* occupies its first-Merge position within the embedded clause, the upstair copy in [Spec, TP] being deleted:

(52) a. María decidió llamar a su hermana (Spanish)
María decided-3.SG call to her sister
'María decided to call her sister'
b. Decidió María llamar a su hermana (Spanish)
decided-3.SG María call to her sister
'María decided to call her sister'

The problem raised by (52b) is actually not big, for one may still assume a PRO-based account, taking *María* to occupy a post-verbal position in matrix vP, from where it could control PRO. The example in (53), studied by Ordóñez (2009), is much trickier, for this time it is more difficult to argue that *María* is a matrix subject, unless we assume that *llamar* raises to a position close to *decidir* in order to form a complex predicate in the overt syntax.

(53) Decidió llamar María a su hermana (Spanish)
decided-3.SG call María to her sister
'María decided to call her sister'

Ordóñez (2009) provides several arguments against a movement analysis for cases like this. Consider the following: (i) if the subject is an NPI, only matrix negation can lincense it, (ii) backward control is sensitive to locality constraints in a way forward control is not, (iii) structures outside the control realm (causatives and preception verbs) display the same pattern, and (iv) the insertion of an element after the infinitive can also affect the matrix object.

(54) NPI licensing
a. Nadie olvidó no tocarse la nariz (Spanish)
nobody forgot-3.SG not touch-SE the nose
'Nobody forgot to touch his nose'
b. No olvidó no tocarse nadie la nariz (Spanish)
not forgot-3.SG not touch-SE nobody the nose
'Nobody forgot to touch his nose'
c. *?Olvidó no tocarse nadie la nariz (Spanish)
forgot-3.SG not touch-SE nobody the nose
'Nobody forgot to touch his nose' [from Ordóñez 2009: 3]

(55) Locality
a. *?No sabe si contestar Juan las cartas (Spanish)
not know-3.SG whether answer Juan the letters
'Juan does not know whether he should answer the letters'
b. Juan no sabe si contestar las cartas (Spanish)
Juan not know-3.SG whether answer the letters
'Juan does not know whether he should answer the letters'
[from Ordóñez 2009: 3]

(56) INF + Subject order in causative and perception contexts
a. Ayer nos hizo leer Juan el libro (Spanish)
yesterday CL-us made-3.SG read Juan the book
'Juan made us read the book yesterday'
b. Ayer oyó cantar Pedro *La Traviata* (Spanish)
yesterday heard-3.SG sing Pedro La Traviata
'Pedro heard how La Traviata was sung' [from Ordóñez 2009:4]

(57) INF + Object
a. Obligaron a firmar a Bush los acuerdos de paz (Spanish)
forced-3.PL to sign to Bush the agreements of peace
'They forced Bush to sign the peace agreements'
b. ?Obligó a firmar el Congreso a Bush los acuerdos de paz (Spanish)
forced-3.SG to sign the Congress to Bush the agreements of peace
'The Congress forced Bush to sign the peace agreements'
[from Ordóñez 2009: 5]

Capitalizing on these facts, which strongly advise against a movement based approach to backward control in Spanish, Ordóñez (2009) argues that the vP headed by the infinitival moves in order to derive the final linear order, following Hinterhölzl (2005). The derivation defended by Ordóñez (2009) is shown in the six steps in (58):

(58) a. $[_{vP}$ María decidió $[_{CP}$ $[_{TP}$ PRO $[_{VP}$ llamar a su hermana]]]]
b. $[_{TP}$ **decidió$_i$** $[_{vP}$ María t_i $[_{CP}$ $[_{TP}$ PRO $[_{VP}$ llamar a su hermana]]]]
↑_____|

c. [$_{TP}$ **[$_{TP}$ PRO [$_{VP}$ llamar a su hermana]]**$_j$ [$_{TP}$ decidió$_i$ [$_{vP}$ María t_i [$_{CP}$ t_j]]]]

d. [$_{TP}$ [$_{TP}$ **a su hermana**$_k$ [$_{TP}$ PRO [$_{VP}$ llamar t_k]]$_j$ [$_{TP}$ decidió$_i$ [$_{vP}$ María t_i [$_{CP}$ t_j]]]]

e. [$_{TP}$ **María$_z$** [$_{TP}$ a su hermana$_k$ [$_{TP}$ PRO [$_{VP}$ llamar t_k]]$_j$ [$_{TP}$ decidió$_i$ [$_{vP}$ t_z t_i [$_{CP}$ t_j]]]]

f. [$_{TP}$ **[$_{VP}$ llamar t_k]**$_v$ [$_{TP}$ María$_z$ [$_{TP}$ a su hermana$_k$ [$_{TP}$ PRO t_v]$_j$ [$_{TP}$ decidió$_i$ [$_{vP}$ t_z t_i [$_{CP}$ t_j]]]]

g. [$_{TP}$ **[decidió$_i$ [$_{vP}$ t_z t_i [$_{CP}$ t_j]]]**$_w$ [[$_{VP}$ llamar t_k]$_v$ [María$_z$ [a su hermana$_k$ [$_{TP}$ PRO t_v]$_j$ t_w]

The remnant-movement analysis that Ordóñez (2009) advocates for has been explored in other contexts (Haegeman 2000, Hinterhölzl 2000, 2005, Koopman, Szabolcsi 2000, and Müller 1998), and seems to be capable of deriving the desired word order without movement of the infinitival subject. I would like to adopt Ordóñez's (2009) analysis with some qualifications. For concreteness, I assume that in order to derive (53), only the steps in (59) are necessary:

(59) a. [$_{vP}$ María decidió [$_{CP}$ [$_{TP}$ PRO [$_{VP}$ llamar a su hermana]]]]
b. [$_{TP}$ **decidió$_i$** [$_{vP}$ María t_i [$_{CP}$ [$_{TP}$ PRO [$_{VP}$ llamar a su hermana]]]]
c. [$_{TP}$ decidió$_i$ llamar$_j$ [$_{vP}$ María t_i [$_{CP}$ [$_{TP}$ PRO [$_{VP}$ t_j a su hermana]]]]

As can be seen, I assume that TP cannot be fronted (step (58c); see Abels 2003), and that the object does not undergo scrambling out of the moved TP, for such movement would violate the derived island constraint (step (58d); see Wexler, Culicover 1981). I crucially assume that the infinitival can A-bar move (as argued by Vicente 2007 on independent grounds).[25]

This slightly modified version of Ordóñez's (2009) analysis can still account for the fact that (60) is ruled out in Catalan:

(60) *?Va decidir trucar la Maria la seva germana (Catalan)
AUX-3.SG decide call the Maria the her sister
'Maria decided to call her sister'

[25] I remain agnostic whether this involves Xº or XP movement. If the latter, then the object would have to move to an outer specifier of the vP (Ordóñez 1998), so that a lower segment can still be fronted.

Ordóñez (2009) attributes the deviance of (60) to the fact that the subject in «V + Subj + INF» and «V + INF + Subj + Obj» orders occupies a derived position, a position different from the *in situ* and preverbal ones, which is not licensed in Catalan. The derivation in (58) can account for this if the subject moves from its first-Merge position to a position below [Spec, TP], roughly as indicated in (61). I label this projection XP, for nothing hinges on the actual label. For the purposes of this paper, what is important is that this position is post-verbal and unlicensed in Catalan (see Ordóñez 2007 for ample discussion).

(61) $[_{TP}$ decidió$_i$ llamar$_j$ $[_{XP}$ María$_z$ X $[_{vP}$ t$_z$ t$_i$ $[_{CP}$ $[_{TP}$ PRO $[_{VP}$ t$_j$ a su hermana]]]]]]

Let us conclude. In this section I have discussed how Spanish sentences such as (52), which may indeed be approached adopting Hornstein's (1999, 2003) MTC, can be handled under a PRO based analysis. As I have defended, largely building on Ordóñez (2009), these cases do not necessarily involve backward control.

5. CONCLUSIONS

I started this paper emphasizing the possibilities that the programmatic nature of minimalism offers, and how fruitful and stimulating − but risky at the same time − this can be. Perhaps the theoretical debate that most accurately captures this prejudice-free panorama is control, and the possibility that this phenomenon can be reduced to raising. Such is the reductionist proposal that Norbert Hornstein (and his collaborators, Cedric Boeckx, Jairo Nunes, and others) made, right after proposing that QR could boil down to A-movement (Hornstein 1994). The possibility that QR can be reduced to A-movement was shown to be problematic by Kennedy (1997), but the control debate is still out there.

In this paper I have offered some arguments against Hornstein's (1999, 2003) approach to control, some of them conceptual, some of them empirical. I am aware that this just increases the literature on the debate, which is huge already. I have tried to emphasize that, by and large, the most compelling argument to depart from Hornstein's analysis is the division of labor that Chomsky (2004) attributes to Merge. If Chomsky's (2004) suggestion that the EM/IM distinction is an optimal way to reduce semantic notions to a broad duality (argument structure and scope-discourse), then Hornstein's idea cannot be stated. There are other problems, and the basic idea behind the «Theta Criterion» can be kept with no need of Deep Structure. Finally, I have argued that control could be analyzed like binding, with OC PRO being a species of anaphor that establishes Multiple Agree with some matrix clause dependent; therefore, I take control to involve Agree, like Landau (1999, 2000, 2004), although details of implementation differ.

The analysis I have argued for may be correct, but it may also be wrong. Whatever the result, I hope it is clear that the spirit of Hornstein's proposal (and of my

reaction to it) is what serious analyses − called minimalist or not − should seek: reducing stipulations, as this is the only means to understand how natural language works.

REFERENCES

Abels, K., 2003, *Successive cyclicity, anti-locality, and adposition stranding,* Ph.D. Dissertation, UConn.

Albizu, P., R. Etxepare, M. Rezac, 2011, "The structural ergative of Basque and the theory of Case", Ms., UPV - IKER/CNRS - SFL/CNRS.

Baker, M. C., 2008, "The macroparameter in a microparametric world", in T. Biberauer (ed.), 351−373.

Biberauer, T. (ed.), 2008, *The Limits of Syntactic Variation*, Amsterdam, John Benjamins.

Biberauer, T., A. Holmberg, I. Roberts, M. Sheehan (eds.), 2010, *Parametric Variation. Null Subjects in Minimalist Theory*. Cambridge, Cambridge University Press.

Bobaljik, D., I. Landau, 2009, "Icelandic Control is not a Movement: The Case from Case", *Linguistic Inquiry,* 40, 113−132.

Boeckx, C., 2003, *Islands and chains. Stranding as resumption*, Amsterdam, John Benjamins.

Boeckx, C., 2008, "The person-Case constraint and repair strategies", in: R. D'Alessandro *et al.* (eds.), *Agreement Restrictions*, Berlin, Mouton de Gruyter, 87−102.

Boeckx, C., 2010, "Defeating Lexicocentrism", Ms., ICREA – CLT/UAB.

Boeckx, C., 2011, "Approaching parameters from below", in: A.M. Di Sciullo, C. Boeckx (eds.), *Biolinguistic Approaches to Language Evolution and Variation*, Oxford, Oxford University Press, 205−221.

Boeckx, C., N. Hornstein, 2004, "Movement under control", *Linguistic Inquiry,* 35, 431−452.

Boeckx, C., N. Hornstein, 2006, "Control in Icelandic and theories of control", *Linguistic Inquiry,* 37, 591−606.

Boeckx, C, N. Hornstein, J. Nunes, 2007, "Overt Copies in Reflexive and Control Structures: A Movement Analysis", *UMD WPL,* 15, 1−46.

Boeckx, C., N. Hornstein, J. Nunes, 2011, *Control as Movement,* Cambridge, Cambridge University Press.

Bošković, Ž., 1994, "D-structure, θ-criterion, and movement into θ-positions", *Linguistic Analysis,* 24, 247−286.

Bošković, Ž., D. Takahasi,1998, "Scrambling and last resort", *Linguistic Inquiry,* 29, 347−66.

Bouchard, D., 1984, *On the Content of Empty Categories,* Dordrecht, Foris.

Burzio, L., 1986, *Italian Syntax: A Government-Binding Approach*, Dordrecht, Reidel.

Burzio, L., 1991, "The morphological basis of anaphora", *Linguistics,* 27, 81−105.

Cardinaletti, A., M. Starke, 1999, "The typology of structural deficiency: on the three grammatical classes", in: H. van Riemsdijk (ed.), *Clitics in the languages of Europe*, Berlin, Mouton de Gruyter, 145−233.

Cecchetto, C., R. Oniga, 2004, "A Challenge to Null Case Theory", *Linguistic Inquiry,* 35, 141−149.

Chandra, P., 2007, *(Dis)agree: movement and agreement reconsidered,* Ph.D. Dissertation, UMD.

Chomsky, N., 1981, *Lectures on government and binding*, Dordrecht, Foris.

Chomsky, N., 1986, *Knowledge of language: Its nature, origin, and use,* New York, Praeger.

Chomsky, N., 1993, "A minimalist program for linguistic theory", in: K. Hale, S. J. Keyser (eds.), *The view from building 20: Essays in linguistics in honor of Sylvain Bromberger*, Cambridge, MA, MIT Press, 1−52.

Chomsky, N., 1995, *The minimalist program,* Cambridge, MA, MIT Press.

Chomsky, N., 2000, "Minimalist inquiries: The framework", in: R. Martin *et al.* (eds.), *Step by step. Essays on minimalist syntax in honor of Howard Lasnik*, Cambridge, MA, MIT Press, 89−155.

Chomsky, N., 2001, "Derivation by phase", in: M. Kenstowicz (ed.), *Ken Hale: A life in language,* Cambridge, MA, MIT Press, 1−52.

Chomsky, N., 2004, "Beyond explanatory adequacy", in: A. Belletti (ed.), *Structures and beyond. The cartography of syntactic structures (vol. 3)*, Oxford, NY, Oxford University Press, 104−131.

Chomsky, N., 2005, "Three factors in language design", *Linguistic Inquiry,* 36, 1−22.

Chomsky, N., 2007, "Approaching UG from below", in: U. Sauerland, H-M. Gärtner (eds.), *Interfaces + recursion = language? Chomsky's minimalism and the view from syntax-semantics*, Berlin, Mouton de Gruyter, 1−30.
Chomsky, N., 2008, "On phases", in: C. Otero *et al.* (eds.), *Foundational issues in linguistic theory. Essays in honor of Jean-Roger Vergnaud*, Cambridge, MA, MIT Press, 134−166.
Chomsky, N., 2011, "Problems of Projection", Talk given at University of Leiden, Leiden.
Chomsky, N., H. Lasnik, 1993, "The theory of principles and parameters", in: J. Jacobs *et al.* (eds.), *Syntax: An international handbook of contemporary research*, Berlin: Walter de Gruyter, 506−569 [Also published in Chomsky 1995].
Cinque, G., 1988, "*Si* constructions and the theory of Arb", *Linguistic Inquiry,* 19, 425−504.
Cinque, G., 1999, *Adverbs and functional heads. A cross-linguistic perspective,* Oxford, Oxford University Press.
Collins, C., 2002, "Eliminating labels", in: S. Epstein, T. Seely (eds.), *Derivation and explanation in the minimalist program,* Malden, MA, Blackwell, 106−132.
D'Alessandro, R., 2007, *Impersonal si constructions*, Berlin, Mouton de Gruyter.
Déchaîne, R. M., M. Wiltschko, 2002, "Decomposing pronouns", *Linguistic Inquiry,* 33, 409−442.
Demirdache, H., M. Uribe-Etxebarria, 2000, "The primitives of temporal relations", in: R. Martin *et al.* (eds.), *Step by step. Essays on minimalist syntax in honor of Howard Lasnik*, Cambridge, MA, MIT Press, 157−186.
Epstein, S., D. Seely, 2002, "Rule applications as cycles in a level-free syntax", in: S. Epstein, D. Seely (eds.), *Derivation and explanation in the minimalist program*, Malden, MA, Blackwell, 65−89.
Epstein, S., D. Seely, H. Kitahara, 2012, "Exploring phase based implications regarding clausal architecture. A case study: Why structural Case cannot precede theta", in: A. Gallego (ed.), *Phases: developing the framework*, Berlin, Mouton de Gruyter.
Fortuny, J., 2008, *The emergence of order in syntax*, Amsterdam, John Benjamins.
Gallego, A., 2009, "On Freezing Effects", *Iberia,* 1, 33−51.
Gallego, A., 2010a, *Phase Theory,* Amsterdam, John Benjamins.
Gallego, A. ,2010b, "Binding through Agree", *Linguistic Analysis,* 34: 163−192.
Gallego, A., in progress, "The basic elements of the left periphery", Ms., CLT-UAB.
Gallego, A., C. Picallo, 2010, "Theta Criterion without D-Structure", Ms., CLT-UAB.
Grohmann, K., 2003, *Prolific peripheries*, Amsterdam, John Benjamins.
Haegeman, L., 2000, "Remnant movement and OV order", in: P. Svenonius (ed.), *The derivation of OV and VO*, Amsterdam, John Benjamins, 69−96.
Hale, K., S. J. Keyser, 1993, "On the argument structure and the lexical expression of syntactic relations", in: K. Hale, S. Keyser (eds.), *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, Cambridge, MA, MIT Press, 53−109.
Hale, K., S. J. Keyser, 2002, *Prolegomenon to a theory of argument structure*, Cambridge, MA, MIT Press.
Halle, M., A. Marantz, 1993, "Distributed morphology and the pieces of inflection", in: K. Hale, S. Keyser (eds.), *The view from building 20. Essays in honor of Sylvain Bromberger*, Cambridge, MA, MIT Press, 111−176.
Hartman, J., 2009, "Intervention in *tough* constructions", *Proceedings of NELS,* 39.
Hernanz, M. Ll., 1990, "La teoria del control i els infinitius no controlats", *Caplletra,* 8, 21−40.
Hernanz, M. Ll., 1993, "A propósito de los adjuntos libres", in: A. Viana (ed.), *Sintaxi. Teoria i perspectives,* Lleida, Pagès, 125−173.
Hernanz, M. Ll., 1999, "El infinitivo", in: I. Bosque, V. Demonte (eds.), *Gramática descriptiva de la lengua española*, Madrid, Espasa, 2197−2356.
Hinterhölzl, R., 2000, "Licensing Movement and Stranding in West Germanic OV languages", in: P. Svenonious (ed.), *The derivation of VO and OV*, Amsterdam, John Benjamins, 293−327.
Hinterhölzl, R., 2005, *Scrambling, Remnant Movement, and Restructuring in West Germanic*, Oxford, Oxford University Press.
Hiraiwa, K., 2005, *Dimensions of symmetry in syntax: Agreement and clausal architecture,* Ph.D. Dissertation, MIT.
Hornstein, N., 1994, "An argument for minimalism: The case of antecedent-contained deletion", *Linguistic Inquiry,* 25, 455−480.

Hornstein, N., 1999, "Movement and control", *Linguistic Inquiry,* 30, 69−96.
Hornstein, N., 2001, *Move! A minimalist theory of construal,* Oxford, Blackwell.
Hornstein, N., 2003, "On control", in: R. Hendrick (ed.), *Minimalist syntax*, Oxford: Blackwell, 6−81.
Hornstein, N., 2007, "Pronouns in a Minimalist Setting", in: N. Corvert, J. Nunes (eds.), *The Copy Theory of Movement,* Amsterdam, John Benjamins, 351−385.
Hornstein, N., 2009, *A Theory of Syntax*, Cambridge, Cambridge University Press.
Hornstein, N., D. Lightfoot, 1987, "Predication and PRO", *Language,* 63, 23−52.
Hornstein, N., J. Uriagereka, 2002, "Reprojections", in: S. Epstein, D. Seely (eds.), *Derivation and explanation in the minimalist program,* Malden, MA, Blackwell, 106−132.
Huddleston, R., G. Pullum (eds.), 2002, *The Cambridge grammar of the English language*, Cambridge, Cambridge University Press.
Kayne, R., 1994, *The antisymmetry of syntax,* Cambridge, MA, MIT Press.
Kayne, R., 2000, *Parameters and universals,* Oxford, NY, Oxford University Press.
Kayne, R., 2002, "Pronouns and their antecedent", in: S. Epstein D. Seely (eds.), *Derivation and explanation in the minimalist program,* Malden, MA, Blackwell, 133−166.
Kayne, R., 2005, *Movement and Silence,* Oxford, NY, Oxford University Press.
Kennedy, C., 1997, "Antecedent-contained deletion and the syntax of quantification", *Linguistic Inquiry,* 28, 662−688.
Koopman, H., A. Szabolsci, 2000, *Verbal Complexes*, Cambridge, MA, MIT Press.
Landau, I., 1999, *Elements of control*, Ph.D. Dissertation, MIT.
Landau, I., 2000, *Elements of Control: Structure and Meaning in Infinitival Constructions*, *Studies in Natural Language and Linguistic Theory*, Dordrecht, Kluwer.
Landau, I., 2003, "Movement Out of Control", *Linguistic Inquiry,* 34, 471−498.
Landau, I., 2004, "The scale of finiteness and the calculus of control", *Natural Language and Linguistic Theory,* 22, 811−877.
Landau, I., 2006, "Severing the distribution of PRO from Case", *Syntax,* 9, 153−170.
Lasnik, H., 1996, "Case and expletives: Notes toward a parametric account", in: R. Freidin (ed.), *Current Issues in Comparative Grammar,* Dordrecht, Kluwer, 162−189.
Lasnik, H., 1999, "Chains of Arguments", in: S. Epstein, N. Hornstein (eds.), *Working Minimalism,* Cambridge, MA, MIT Press, 189−215.
Lebeaux, D., 1983, "A Distributional Difference between Reciprocals and Reflexives", *Linguistic Inquiry,* 14, 723−730.
Legate, J. A., 2008, "Morphological and abstract case", *Linguistic Inquiry,* 39, 55−101.
López, L., 2007, *Locality and the architecture of syntactic dependencies*, New York, Palgrave.
Manzini, R., 1983, "On control and control theory", *Linguistic Inquiry,* 14, 421−446.
Manzini, R.., A. Rousso, 2000, "A minimalist theory of A-movement and control", *Lingua,* 110, 409−447.
Marantz, A., 1991, "Case and Licensing", in: G. Westphal *et al.* (eds.), *Proceedings of the 8th Eastern States Conference on Linguistics (ESCOL 8)*, Ithaca, NY, CLC Publications, 234−253.
Martin, R., 1996, *A minimalist theory of PRO and control,* Ph.D. Dissertation, UConn.
Müller, G., 1998, *Incomplete Category Fronting,* Dordrecht, Kluwer.
Müller, G., 2010, "On Deriving CED Effects from the PIC", *Linguistic Inquiry,* 41, 35−82.
Nunes, J., 2004, *Linearization of chains and sideward movement,* Cambridge, MA, MIT Press.
Obata, M., 2010, *Root, successive-cyclic and feature-splitting internal merge: Implications for feature-innheritance and transfer*, Ph.D. Dissertation, University of Michigan.
O'Neil, J., 1997, *Means of Control: Deriving the Properties of PRO in the Minimalist Program*, Ph.D. Dissertation, Harvard University.
Ordóñez, F., 1998, "Post-verbal asymmetries in Spanish", *Natural Language and Linguistic Theory,* 16, 313−346.
Ordóñez, F., 2007, "Cartography of postverbal subjects in Spanish and Catalan", in: S. Baauw *et al.* (eds.), *Romance languages and linguistic theory 2005: Selected papers from 'Going Romance', Utrecht, 8-10 December 2005*, Amsterdam, John Benjamins, 259−280.
Ordóñez, F., 2009, "Backwards or in situ? Infinitival Overt Subjects in Romance", Talk given in *XIX Colloquium on Generative Grammar*, University of the Basque Country, Vitoria (Spain).

Ott, D., 2011, *Local Instability: The Syntax of Split Topics,* Ph.D. Dissertation, Harvard University.
Pesetsky, D., E. Torrego, 2001, "T-to-C movement: Causes and consequences", in: M. Kenstowicz (ed.), *Ken Hale: A life in language*, Cambridge, MA, MIT Press, 355−426.
Pesetsky, D., E. Torrego, 2004, "Tense, Case, and the nature of syntactic categories", in: J. Guéron, J. Lecarme (eds.), *The syntax of time,* Cambridge, MA, MIT Press, 495−537.
Polinsky, M., E. Potsdam, 2002, "Backward control", *Linguistic Inquiry,* 33, 224−282.
Polinsky, M., E. Potsdam, 2006, "Expanding the scope of control and raising", *Syntax, 9*, 171−192.
Raposo, E., J. Uriagereka, 1996, "Indefinite *SE*", *Natural Language and Linguistic Theory,* 14, 749−810.
Reuland, E., 2001, "Primitives of binding", *Linguistic Inquiry,* 32, 439−492.
Reuland, E., 2005, "Agreeing to bind", in: H. Broekhuis *et al.* (eds.), *Organizing Grammar. Studies in Honor of Henk van Riemsdijk*, Berlin, Mouton de Gruyter, 505−513.
Richards, N., 2010, *Uttering Trees,* Cambridge, MA, MIT Press.
Rizzi, L., 198,. "On chain formation", in: H. Borer (ed.), *Syntax and semantics: The syntax of pronominal clitics*, New York, Academic Press, 65−95.
Rizzi, L., 1990, *Relativized Minimality*, Cambridge, MA, MIT Press.
Rizzi, L., 1997, "The fine structure of the left periphery", in: L. Haegeman (ed.), *Elements of grammar. Handbook in generative syntax*, Dordrecht, Kluwer, 281−337.
Rizzi, L., 2006, "On the form of chains: Criterial positions and ECP effects", in: L. Cheng, N. Corver (eds.), *wh-movement: Moving on*, Cambridge, MA, MIT Press, 97−133.
Roberts, I., 2010, *Agreement and head movement: Clitics, incorporation and defective goals*, Cambridge, MA, MIT Press.
Rosenbaum, P., 1967, *The grammar of English predicate complement constructions*, Cambridge, MA, MIT Press.
Rosenbaum, P., 1970, "A principle governing deletion in English sentential complementation", in: R. Jacobs, P. Rosenbaum (eds.), *Readings in English transformational grammar,* Waltham, MA, Ginn, 20−29.
San Martin, I., 2004, *On subordination and the distribution of PRO,* Ph.D. Dissertation, UMD.
Sigurðsson, H. Á., 1991, "Icelandic Case-marked PRO and the licensing of lexical arguments", *Natural Language and Linguistic Theory,* 9, 327–363.
Sigurðsson, H. Á., 2008, "The case of PRO", *Natural Language and Linguistic Theory,* 26, 403−450.
Starke, M., 2010, "Towards an elegant solution to language variation: Variation reduces to the size of lexically stored trees", Ms., U. Tromso.
Stjepanović, S., 1999, *What do second position clitization, scrambling and multiple wh-fronting have in common?,* Ph.D. dissertation, UConn.
Svenonius, P., 2002, "Case is uninterpretable aspect", Ms., U.Tromsø.
Svenonius, P., 2004, "On the edge", in: D. Adger *et al.* (eds.), *Peripheries: Syntactic edges and their effects*, Dordrecht, Kluwer, 259−287.
Torrego, E., 1998, *The dependencies of objects*, Cambridge, MA, MIT Press.
Uriagereka, J., 1997, "Formal and Substantive Elegance in the Minimalist Program", in: M. Bierwisch *et al.* (eds.), *The role of economy principles in linguistic theory,* Berlin, Akademie Verlag, 170−204.
Uriagereka, J., 1999, "Multiple spell-out", in: N. Hornstein, S. Epstein (eds.), *Working minimalism,* Cambridge, MA, MIT Press, 251−282.
Uriagereka, J., 2006, "Complete and partial Infl", in: C. Boeckx (ed.), *Agreement systems,* Amsterdam, John Benjamins, 267−298.
Vicente, L., 2007, *The syntax of heads and phrases. A study of verb (phrase) fronting,* Ph.D. Dissertation, University of Leiden.
Wexler, K., P. Culicover, 1981, *Formal principles of language acquisition,* Cambridge, MA: MIT Press.
Williams, E., 1980, "Predication", *Linguistic Inquiry,* 11, 203−238.
Wurmbrand, S., 1999, "Modal verbs must be raising verbs", in S. Bird *et al.* (eds), *WCCFL 18 Proceedings,* Somerville, MA, Cascadilla Press, 599−612.
Wurmbrand, S., 2004, "Two types of restructuring − Lexical vs. Functional", *Lingua,* 114, 991−1014.
Zwart, J-W., 2002, "Issues relating to a derivational theory of binding", in: S. Epstein, D. Seely (eds.), *Derivation and Explanation in the Minimalist Program,* Malden, MA, Blackwell, 269−304.