Proxy Control:

a new species of obligatory control under modality*

Aaron Doliana and Sandhya Sundaresan, University of Leipzig March 7, 2016

Abstract: This paper presents evidence from Brazilian Portuguese (BP), Tamil, and dialects of German and Italian for "proxy control", a new species of obligatory control (OC). Proxy control obtains in the scope of deontic modality and bears a clear connection to proxy readings obtained under anaphora (Jackendoff 1992, Lidz 2004) though the nature of the proxy relationship is fundamentally different in both. Formally, proxy control involves a non-exhaustive obligatory control relation between one set of individuals i and another, f(i), that is discourse-contextually related to it. We also provide agreement evidence from floating quantifiers and secondary predication in the proxy control complement in BP and Italian to argue that the proxy dependency must be motivated in the (morpho-)syntax. The theoretical implications of these findings are potentially far-reaching. In addition to widening the typology of possible obligatory control dependencies in natural language, proxy control also poses a strong challenge to movement theories of control (e.g. involving a null comitative PP containing the controller in the controlled constituent, as in Boeckx et al. 2010, a.o.). We thus propose an analysis of the proxy control facts in terms of Landau (2015b)'s "logophoric" control, suggesting in particular that the mediating perspectival C head in the control complement encodes a species of deontic modal (Mod $_{deontic}$).

^{*}We gratefully acknowledge Marcelo Giovannetti and Sinval de Medeiros Jr. for help with the Brazilian Portuguese data, Lotte Davis, Hagen Blix and Mary Worch for help with the German, and Julian Doliana, Pier Luigi Doliana, and especially Simone Loi for helpful discussion and feedback with the Italian data. Thanks go to Thomas McFadden and Barbara Stiebels for discussing the various theoretical and typological aspects of this paper with us. We are also indebted to the Syntax Zirkel at the Zentrum für Allgemeine Sprachwissenschaft (ZAS), Berlin for inviting us to present an earlier version of this idea, and to the audiences at the "Pronomes" (PMSSP) Workshop in Salvador Brazil, both of which resulted in much fruitful discussion and feedback. Of the authors (alphabetically ordered), the first is a native speaker of German and Italian, the second a native speaker of English and Tamil. Any errors are, of course, ours alone.

1 Overview

In the case of obligatory control (OC henceforth), and speaking atheoretically for now, the reference of a local (i.e. in the immediately higher or lower clause) and typically c-commanding controller must be either exhaustively or non-exhaustively replicated in that of the controllee, the typically silent subject of the controlled constituent. (1) shows us a standard case of exhaustive OC in the complement of *try*: the reference of the controller is identical to that of the controllee. (2) show us the two instances of non-exhaustive OC hitherto reported in the literature (Landau 2013, a.o.) partial control (2a), and split control (2b) — in both, the reference of the controller is a properly contained in that of the controllee:

- (1) Exhaustive OC: Matilda $_i$ struggled [EC $_i$ to guzzle that beer].
- (2) *Non-Exhaustive OC:*
 - a. *Partial OC:* Matilda_i agreed [EC_{i+} to meet at the bar].
 - b. *Split OC*: Matilda_i asked Lars_i [about EC_{i+j} splitting that pitcher of beer].

Crosslinguistically, exhaustive control predications have been observed to involve a "tighter" connection between the controlled and controlling clauses with respect to various ingredients of finiteness: tense, aspect, modality, subject reference, etc (Stiebels 2007, Landau 2013). Non-exhaustive OC predications, on the other hand – involving partial control and split control – seem to be more independent with respect to the embedding predicate, for the various aspects of finiteness: i.e. tense, mood, agreement, and subject case and reference.

In this paper, we expand on the typology of obligatory control in natural language by motivating the presence of a new (i.e. hitherto unobserved) form of obligatory control. This type of OC, which we term *proxy control*, seems to obtain exclusively in the presence of deontic modality. The nature of proxy control is best illustrated with a concrete example, as in (3b) below:

(3) a. **Proxy Control Scenario:** Johanna is a student helping to organize a student conference. She knows she will not be attending the conference as she will be away. She is simply asking Frau Pohl, who administrates the New Seminar Building, whether the attendees can use the facilities.

b. Johanna $_i$ hat Frau Pohl $_j$ gebeten, [$\mathrm{EC}_{f(i)}$ das Neue Seminargebäude für eine Johanna has Mrs Pohl asked the new seminar building for a studentische Tagung nutzen zu dürfen]. 'Johanna asked Mrs Pohl for student conference use.INF to may.INF permission to use the new seminarbuilding for a student conference.'

In (3b), there is a clear referential dependency between the matrix subject *Johanna* and the silent, embedded one. However, this dependency doesn't quite look like any of the control relationships illustrated in (1)-(2) above. Given the discourse-context, it is clear that Johanna herself will not be using the seminar-building, so the relationship is not one of exhaustive control. But for this same reason, it also doesn't correspond to one of the cases of non-exhaustive control (i.e. to partial or split control) illustrated above: the referent of the controller, Johanna, is not properly contained in that of the controllee either. What we have here, instead, is a non-exhaustive control relationship where the reference of the controllee is discourse-contextually associated with that of the controller in some way. In the specific case of (3b), for instance, this association is built on the notion that Johanna and the students are part of the same conference organizing committee. Johanna is asking purely *on behalf of* her co-committee members¹: the controller denotes the former, the controllee the latter.

Informally, therefore, proxy control delineates a non-exhaustive control relationship between an individual and another individual or group of individuals that are (discourse) contextually related to him/her. Formally, it instantiates a mapping between an individual i and a discourse-contextually defined function f on i, yielding another referent f(i). Proxy control, incidentally, also has a clear analog in cases of *proxy anaphora* (the name drawing upon the famous Madame Tussaud examples in Jackendoff 1992) and *near reflexives* described in Lidz (2004) and Reuland (2011) which again involves a relationship between an antecedent i and an anaphor that is related to that antecedent in some way — thus underscoring the parallel between control and anaphora more generally.

Given the heavy influence of the discourse-context in shaping the identity of the control relationship, it is entirely legitimate to ask whether the proxy control dependency should be encoded extra-grammatically, at the level of discourse-pragmatics. However, on the strength of novel evidence from Brazilian Portuguese and Italian showing that the proxy controller can trigger phi-agreement on floating quantifiers and secondary predicates in the control constituent, we will argue that this control dependency must

¹I.e. she stands as a *proxy* or representative for them in this matter.

be, at least in part, morphosyntactically instantiated. In particular, we will propose that proxy control should be analysed in terms of mediated "logophoric" control in the sense of Landau (2013), and propose that the mediating logophoric or perspectival C head encodes a species of deontic modal, which we call Mod_{deontic}. In this context, we will also argue that proxy control constitutes a very strong challenge to movement based theories of control (Hornstein 1999, et seq.). Hornstein (2003), Słodowicz (2008), Boeckx et al. (2010) and others argue that partial control, the most prototypical case of non-exhaustive OC, may indeed be derived via movement if we assume the presence of a null comitative PP containing the controller in the controlled clause. However, it is extremely difficult to see how such an analysis can be extended to the cases of proxy control at hand where the denotation of the controller need not be part of that of the controllee at all.

2 Proxy Control: empirical nuts and bolts

In this section, we will articulate the precise morphosyntactic and semantic conditions under which proxy control seems to obtain, arguing: (i) that the proxy dependency yields a discourse-contextually defined relationship between one set of individuals and another, (ii) that it obtains only in the scope of deontic modality (e.g. in the context of someone asking someone else for permission on behalf of a third party), which however may be overtly or covertly represented in the controlled constituent, (iii) that although proxy control appears to entail control shift, the two phenomena are strictly orthogonal to one another but frequently co-occur because of their mutual sensitivity to modality, and (iv) that the structural requirement for proxy control entails that for partial control.

2.1 Proxy control in Italian, Tamil, and German

Consider the following example from Italian.

- (4) a. Giovanna $_i$ ha chiesto alla responsabile $_j$ [di $EC_{i,i+k,f(i)}$ poter utilizzare Giovanna has asked to the responsible C may.Inf use.Inf l' aula magna per la visione di un film]. 'Giovanna asked the person the lecture hall for the vision of a film in charge for permission to use the lecture hall to watch a film.'
 - b. Exhaustive Control Scenario: Giovanna needs to watch 'The big feast' by Ferreri

- and write an essay on it. Unfortunately, her DVD-player is broken, so that she has to watch the film elsewhere. She decides to ask the school.
- c. **Partial Control Scenario:** Giovanna needs to watch 'The big feast' by Ferreri and write an essay on it with some other classmates. Unfortunately, none of their DVD-players work, so that they have to watch the film elsewhere. She has the idea to ask the school.
- d. **Proxy Control Scenario:** The following week is film week in art class. The teacher intends to show 'The big feast' by Ferreri to the class so she sends Giovanna to ask for permission to use the lecture hall. Giovanna, however, will be away that week, so she won't be able to watch the film in the lecture hall along with the teacher and classmates.

The example above lends itself to different types of control readings. Under the first scenario where Giovanna asks for permission for just herself, we get an exhaustive control reading $(i \to i)$, with the reference of the controller being exhausted by (i.e. identical to) that of the controllee. In the second scenario, where Giovanna asks for permission for herself and her classmates, we get a partial control reading $(i \to i+)$, with the reference of the controller being properly contained in that of the controllee. What is of interest, and novel, is the third scenario, where Giovanna is requesting permission on behalf of her classmates alone, with the discourse-context making it clear that she herself will not be present. Here, we have a proxy control dependency $(i \to f(i))$ where the referents of the controller and controllee clearly pick out disjoint sets in the discourse context, but nevertheless bear a clear discourse-contextual relationship with one another (specifically, that of membership in the same art class). This is, then, essentially parallel to the German example discussed at the very outset, in (3b).

Essentially parallel circumstances such as this yield the proxy control reading for the Tamil sentence in (5) below:

- (5) a. **Proxy Control Scenario:** Raman is an auto-rickshaw driver whose vehicle is being repaired at the moment. But he has agreed to take on a negotiating role on behalf of the rickshaw drivers union to make some extra money. The city government has forbidden auto-rickshaws from plying in the central business district. Raman is negotiating a lifting of this ban for his fellow union-members, even though he himself can't drive currently.
 - b. Raman $_i$ maanagaraačči-kittæ [$\mathrm{EC}_{f(i)}$ nagar-læ auto-væ oott-æ] anumadi-ke-tt-aan. Raman.nom goverment-obl city-loc auto-acc drive-inf permission-ask-pst-3msg

In (5b), the non-exhaustive controller of the embedded nonfinite subject is the matrix subject Raman denoting the auto-rickshaw driver Raman in the discourse scenario. But the discourse-context makes explicit that Raman himself cannot participate in the event described in the control clause, i.e. cannot belong to the set of individuals denoted by the controllee. This is the kind of situation that feeds proxy control — Raman is merely a representative, asking on behalf of a group of individuals contextually related to him, yielding a control relation between himself (i) and these individuals (f(i)).

2.2 The nature of the proxy relation

The examples we have seen thus far from Italian, German and Tamil all reveal a consistent pattern with respect to the nature of the proxy relationship. They all involve a discourse scenario where an individual asks on behalf of another individual or group of individuals that are discourse contextually related to him or her, yielding a nonexhaustive control relationship from $i \to f(i)$. In (3b), the discourse-contextual relation defined by f is that of membership in the organizing committee for the student conference, in (4a) that of student membership in the same art class, in (5b) that of membership in the same rickshaw drivers' union. One can presumably conceive of other discourse-contextual relations as well, including ones where the notion of membership is defined more abstractly or loosely: *how* abstractly or loosely, whether there is an upper bound to these individual concepts that is clearly definable, and/or whether and to what extent this may be parametrized, is a matter that must be decided empirically, and is part of ongoing research.

However, at this stage we can already say concretely that the nature of the proxy relation in the control structures above seems more loosely defined than are proxy dependencies of another kind, namely in the realm of anaphora. The latter include the now well-known Madame Tussaud scenario discussed in Jackendoff (1992) involving examples like that in (6a), as well as "near reflexives" (Lidz 2004, Reuland 2011) involving the local binding of an anaphor attached to a 'self' or (other) body-part morpheme, as in the Basque example in (6b) (from Schladt 2000, via Reuland and Winter (2009)):

(6) a. (Upon a visit in a wax museum:) All of a sudden Ringo_i started undressing himself_{f(i)}.

b. [aitak bere]_i burua $_{f(i)}$ hil du '[The father]_i killed father+ERG 3SGPOSS head+NOMDEF kill have+3SG+3SG himself $_{f(i)}$ '

In (6a), we have the real Ringo Starr entering the Madame Tussaud museum and start to undress the wax statue of himself: so the anaphor and the antecedent pick out different individuals in the discourse that are nevertheless related to one another, yielding a relation between i (the real Ringo, Beatles drummer) and f(i) (the wax statue of Ringo). Reuland and Winter (2009) argue that the same logic may be applied to a sentence like that in (6b): the 'self' morpheme is a body-part morpheme that creates a complex anaphor that denotes an individual that is related, but not exactly identical to, the antecedent, yielding again a relationship of the form $i \to f(i)$.

To this basic extent, the proxy relations in anaphora and control seem identical. However, the nature of the proxy in each is very different. To see why, observe that a proxy control reading is impossible in a control structure like that in (7a) below, even though a proxy anaphor is still possible.:

(7) a. (Upon a visit to a wax museum or a theater-performance about the Beatles:) All of a sudden Ringo_i asked $[EC_{i,*f(i)}]$ to undress himself_{f(i)}].

We can take the same Madame Tussaud scenario as in (6a): here, it is clear that, although a proxy anaphor reading is still available, the controllee in the control complement must be exhaustively controlled. I.e. it must denote the real Ringo Starr, not his statue. It is all too tempting to attribute the unavailability of a proxy control reading here to the nature of the world: after all, statues cannot function agentively (e.g. undress things). However, even if the discourse-context were changed to involve a potential proxy relation between the real Ringo Starr and an actor playing Ringo Starr (e.g. in a context where Ringo attend a play about the Beatles), a proxy control reading is ruled out. I.e. (7a) cannot have the reading that the real Ringo asked for the actor Ringo to start undressing himself. Only an exhaustive control reading is possible, as illustrated by the referential indices in (7a).²

This is a very interesting and potentially significant difference that speaks to the

²More generally, we note that, in proxy anaphora, the proxy anaphora stands as a proxy or substitute for the "real thing" in some way. Such a substitution is less obvious, or at the very least is more abstractly or loosely characterized, in the proxy control structures. In the Tamil example in (5b), for instance, the auto-rickshaw drivers (denoted by the controllee) do not represent or "stand in" for Raman in any clear way.

nature and possible structural representation of the proxy dependency in language, to potential differences between control and anaphora — two types of grammatical phenomena that otherwise have at their core the identical property that they both instantiate replication for reference across nominals — and to the interaction of these phenomena with the semantics of *de se* and *de re*. For now, we simply note the existence of this difference and defer further discussion pending more research.

2.3 The connection to deontic modality

Returning to the proxy control structures in (3b)-(4a), it is clear that they all involve some sort of permission semantics — more formally, a reading of deontic modality. This has a direct influence on the choice of control predicate that induces proxy control. In the German and Italian dialects we have tested so far, proxy control always seems to appear with predicates that express deontic modality: e.g. Italiana *chiedere* 'ask', *richiedere* 'ask, demand', *pregare* 'aks, beg', *promettere* 'promise', *assicurare* 'assure' or German *bitten* 'ask', *anflehen* 'beg', and *versprechen* 'promise', *versichern* 'assure'). The proxy-controller in all these cases is the seeker of permission and the proxy-controllee the (potential) receiver/goal.

In light of this claim about the role of deontic modality, the German examples in (8a) may seem problematic: in (8a) the players, but not the coach himself, are cheered for by the fans; in (8b) some other conference participant will get the better room, e.g. her co-organizers, but not she herself:³

- (8) a. Der Trainer_i bat die Fans_j, [$\text{EC}_{f(i)}$ mehr Anfeuerung zu bekommen]. '[The the coach asked the fans more cheering to receive.INF coach_i] asked [the fans]_j [$\text{EC}_{f(i)}$ to receive more cheering].'
 - b. Johanna $_i$ erzwang, $[EC_{f(i)}$ einen besseren Tagungsraum zu bekommen]. Johanna compelled a better conference room to receive.INF 'Johanna $_i$ asked $[EC_{f(i)}$ to get a better conference room].'

Unlike the proxy control German sentence in (3b), which has an overt permission modal *dürfen* ('may') in the control complement, these examples lack such an overt modal. In fact, adding such a modal to (8a) even seems to have the strange effect that the proxy control reading vanishes in favour of an exhaustive one:

³We thank Barbara Stiebels (p.c.) for bringing this to our attention.

(9) a. [Der Trainer] $_i$ bat [die Fans] $_j$, [$\mathrm{EC}_{i,*f(i)}$ mehr Anfeuerung bekommen zu the coach asked the fans more cheering receive.INF to dürfen]. '[The coach] $_i$ asked [the fans] $_j$ [$\mathrm{EC}_{i,*f(i)}$ to be allowed to receive may.INF more cheering].

However, at this stage, it is not at all clear whether such examples constitute genuine counter-examples to the idea that the proxy control dependency is intrinsically tied to a semantics of deontic modality. After all, while there may be no *overt* permission modal (i.e. dürfen 'may') in the embedded clause in (8a), it is nevertheless clear that a permission semantics is introduced as part of the meaning of the matrix verb beten 'ask'. Note, in this regard, that the overtness of the modal seems to be subject to crosslinguistic variation as well — even just with respect to the four languages considered here. Furthermore, its presence is apparently redundant with a number of predicates, such as 'permit', which entail deontic modality. As Tamil (5b) shows, there is no overt modal in the control complement. In Italian, however, the modal, even if seemingly redundant, must be present in the control complement for partial or proxy control readings to obtain.⁵ In Brazilian Portuguese, however, the opposite seems to hold. The modal could generally not be present in the control complement, while in German, its presence facilitates proxy control readings according to the German author, though the contrast is not as strong as in Italian. Furthermore, there is disagreement between the speakers of German that were consulted with respect to when the addition of the redundant modal would contribute meaningfully to the sentence. Finally, Barbara Stiebels (p.c.) also informs us, based on a brief survey of a German newspaper corpus, that the frequency of such redundant modals is very slim in comparison to examples without them (i.e. juxtapositions as 'permit-V.INF' vs. 'permit-may.INF-V.INF').

⁴As for (9a), we might surmise that the predicative noun 'cheering' be analysed as having an implicit argument 'for the players' so that the control relation is forced to be exhaustive. The proxy reading in (8a) would then arise from the semantics of that noun in combination with the recipient oriented predicate. Such issues clearly need to be investigated more thoroughly, however.

⁵Interestingly, in such cases, clitic climbing of a reflexive clitic *si* from the embedded lexical verb to the embedded modal blocks partial control, yielding exhaustive control so that (i) is ungrammatical.

⁽i) *Il presidente ha permesso al capo reparto [di EC_{i+} poter-si anche non riunir nel the president has permitted to.the chief section C may.Inf-refl also not gather.Inf in.the caso in cui dovesse reputar-lo inutile]. 'The president allowed the section chief to also case in which must.sbjv consider.Inf-it useless not gather in case he considered it useless.'

The conditions on the overtness of the modal in the controlled constituent clearly warrant further research. What seems incontrovertible, however, is that there is a semantic interpretation of permission seeking that is involved in all the proxy control structures given here crosslinguistically. For this reason, we will continue to assume that proxy control obtains in the scope of deontic modality and formally exploit this connection in our analysis of these facts.

2.4 Proxy control vs. control shift

Control shift is the phenomenon where a typically subject control predicate shifts to object control or vice versa. Thus, in (10a) involving 'promise', the controller is not the matrix subject as is typical but the matrix object whereas in (10b), it is the other way around, so we get subject rather than the standard object control with 'ask':

- (10) a. Grandpa promised the children_i [EC_i to be able to stay up for the late show].
 - b. Jim_i asked Mary [EC_i to be allowed to get himself a new dog].

(Landau 2013, 143–144)

The astute reader may have noticed that all the examples of proxy control we have listed so far from German, Italian and Tamil have also involved control shift. Thus, in the German example, repeated below, the (proxy-)controller is the matrix subject *Johanna*, not the matrix object *Frau Pohl*. Crucially, furthermore, the proxy control reading doesn't seem to be possible with object control:

- (11) a. **Proxy Control Scenario:** Johanna is a student helping to organize a student conference. She knows she will not be attending the conference as she will be away. She is simply asking Frau Pohl, who administrates the New Seminar Building, whether the attendees can use the facilities.
 - b. Johanna $_i$ hat Frau Pohl $_j$ gebeten, [$\mathrm{EC}_{f(i)}$ das Neue Seminargebäude für eine Johanna has Mrs Pohl asked the new seminar building for a studentische Tagung nutzen zu dürfen]. 'Johanna asked Mrs Pohl for student conference use.INF to may.INF permission to use the new seminarbuilding for a student conference.'

This suggests that proxy control is parasitic on control shift (or vice-versa). However, we will show here that control shift is neither a necessary nor a sufficient condition for

proxy control to obtain. I.e. on the one hand, proxy control may obtain even in the absence of control shift, cf. (12a):

- (12) a. **Proxy Control Scenario:** The following week is film week in art class. The teacher intends to show 'The big feast' by Ferreri to the class so she sends Giovanna to ask for permission to use the lecture hall. Giovanna will actually be away that week so that she won't be able to watch the film in the lecture hall along with the others. Nonetheless, she goes and asks. The secretary promises Giovanna to be allowed to use the lecture hall.
 - b. La responsabile ha permesso a Giovanna [di $EC_{f(i)}$ poter utilizzare The responsible has allowed to Giovanna C may.Inf use.Inf I' aula magna per la visione del film]. 'The person in charge althe lecture hall for the vision of the film lowed Giovanna [PRO $_{f(i)}$ to use the lecture hall to watch a film].'

On the other hand, control shift may obtain even in the absence of proxy control — e.g. as a result of passivization in the embedded complement, cf. (13).

(13) L' impiegat-a_i ha pregato il suo collega_j [di ec_i essere trattat-a the employee-f.sg has asked the his colleague.m.sg C be.inf teated-f.sg con piú rispetto]. 'The employee asked her colleague to be treated with with more respect more respect.'

The appearance of a dependency between proxy control and control shift, we argue, has to do with the fact that both depend on the presence of modality in the local clause (Sag and Pollard 1991, Petter 1998, for discussion of control shift).⁶ I.e. proxy control entails, not control shift, but modality – in particular, deontic (ability) modality, as we have discussed in detail above, and since certain types of control shift depend on this as well, the appearance of a direct relation between proxy control and control shift is simulated via transivity.

2.5 Proxy control vs. Partial control

Proxy control is very similar to another, better known type of non-exhaustive control – namely the control relationship termed "partial control". Here we thus ask what the

⁶The connection to modality is more tenuous with control shift, of course, since as we have just seen, certain types of control shift, as in (13) obtain, not due to modality, but due to passivization.

logical connection is, if there is any, between the structure(s) that can yield the former and those that can yield the latter.

Concretely, are there structures where we can get partial control but not proxy control? The answer, it turns out, is Yes. In (14) (adapted from Landau 2013, 164), only a partial control, but not a proxy control reading is available:

(14) Il presidente crede [di $EC_{i+,*f(i)}$ esser-si riuniti inutilmente la the president believes C be.Inf-refl gathered.m.pl in.vain the notte scorsa]. 'The chair believes to have gathered in vain last night.' night last

Now we ask whether there are any structures where we get proxy control but not partial control. The answer to this is more interesting — it turns out there aren't. I.e. without changing their fundamental structure, all the proxy control sentences on this handout could, in principle, also yield a partial control reading given a different discourse-context. To see why, consider the German example we have looked at most recently in (11b) above. The discourse context explicitly states that Johanna (represented by the matrix subject controller *Johanna*) will herself be away, thus precluding a partial control reading. However, under a different discourse-context where Johanna will herself also be attending the conference, (11b) simply yields a run-of-the-mill partial control reading.

In other words, while a partial control reading can be pragmatically ruled out to yield a proxy control reading, it doesn't seem possible to rule it out semantically (or lexically). Logically, the structural requirement for proxy control entails the structural requirement for partial control. Put another way, the environments that license proxy control are a proper subset of those that license partial control. Not unexpectedly, given this, the predicates that license proxy control, at least those tested so far, also seem to be a proper subset of those predicates that have been shown to license partial control, e.g.: factive regret, surprised, hate, shocked, attitudinal believe, think, imagine, deny, desiderative want, prefer, yearn, refuse and interrogative wonder, ask, interrogate, inquire.

⁷This is ultimately not that surprising if we think more carefully about the nature of the proxy and partial control dependencies. We might formalize the logical connection between reference under proxy control and reference under partial control as follows: Partial control can be viewed as the function taking the controller and returning itself plus some associated individual(s) j (+k). One can then think of exhaustive i to be the specific instantiation of the function i+ where i+ adds the empty set, yielding an identity function. The i+ function can then also be viewed as a specific instantiation of the proxy control function f(i), which can (i) take i and return i, (ii) take i and return i+j, and (iii) take i and return a set of individuals associated with i, e.g. j+k.

2.6 Summary of properties

Given the detailed descriptive presentation of what proxy control is and is not, in this section, we may summarize its properties as follows. Proxy control is a non-exhaustive control relation between one set of individuals i and another f(i), where f is a discoursecontextually defined function between the two sets of individuals. As such, proxy control bears a clear relation to other proxy relations holding between individuals, such as proxy anaphora. Nevertheless, the nature of the proxy relationship expressed in proxy control structures seems to more loosely or abstractly defined than it is for that in proxy anaphora. Specifically, proxy control between an individual and a body-part (or statue or other concrete representation) of that individual seems to be ruled out. Proxy control also entails the presence of a deontic modal, either overt or silent, in the control complement. I.e. there can be no proxy control in the absence of such modality. The controller in such structures is typically the seeker of permission while the controllee is the intended receiver of this permission. Proxy control readings frequently co-occur with control shift, lending the misleading impression that one is fed by the other: however, the connection between the two phenomena is more direct and due to the fact that both proxy control and types of control-shift are conditioned by the presence of modality. Finally, we have shown that the environments that license proxy control also license partial control: while the former can pragmatically rule out the latter, it cannot do so semantically. This conclusion is bolstered by the fact that the predicates that license proxy control seem to be a proper subset of those that license partial control.

3 Proxy Control is Obligatory Control

That there are two types of control relation in natural language — termed "non-obligatory control" and "obligatory control" — is well known. Obligatory control may be defined as per the OC signature in (Landau 2013, 33):

- (15) The OC signature -:
 - In a control construction [... X_i ...[S PRO $_i$...]...], where X controls the PRO subject of the clause S:
 - •The controller(s) X must be (a) co-dependent(s) [argument or adjunct] of S.
 - •PRO (or part of it) [this caveat subsumes cases of partial control as a subspecies of OC] must be interpreted as a bound variable.

Non-obligatory control (Williams 1980), on the other hand, may be negatively defined with respect to these points.

The natural question that arises at this juncture is whether proxy control is a species of obligatory control (OC) or of non-obligatory control (NOC). In fact, we aren't starting with a blank slate with respect to this question but already have a prediction. Landau (2013) presents diagnostics for bound variable behavior to argue in detail that partial control constitutes a species of OC crosslinguistically with respect to the definition given above. Given our discussion immediately above showing that environments that license proxy control entail those that license partial control, we predict that proxy control, too, should be a species of obligatory control.

Below, we show that this prediction is indeed fulfilled. To this end, we present evidence showing that the controller must be part of the clause that immediately selects the control complement: thus satisfying the co-dependence condition on control in (15) (see also Hornstein 1999, for discussion of this point). We also illustrate that proxy control structures yield only sloppy reading under ellipsis, thus showing that the bound variable condition on the controlled element, given in (15), is also satisfied.

3.1 Proxy controller must be co-dependent of control clause

Here, we illustrate that there is a minimality condition on the proxy control relation, as described in the OC Signature in (15). In particular, the controller involved in the proxy control relation must a thematic participant of the clause that directly embeds the control clause. In other words, only one level of embedding is allowed — there is no cyclic or true long-distance control across multiple clauses. This is illustrated by the multiply embedded Italian sentence below, under the "proxy-proxy" scenario given in (16):

- L' insegnante_k ha pregato Giovanna_i [di $EC_{i,*j,*k}$ chiedere alla responsabile_j (16)the teacher has asked Giovanna C ask.INF to.the responsible utilizzare l' aula magna per l' assemblea degli [di $EC_{f(i),*f(k)}$ poter the lecture hall may.INF use.INF for the assembly of the 'The teacher asked Giovanna to ask the person in charge for insegnanti]]. teachers permission to use the lecture hall for the teachers' assembly.'
 - b. **Potential proxy-proxy scenario:** The following week is the teachers' assembly, generally held in the lecture hall. The teacher who is in charge of organizing the room this time is a bit lazy so she sends a student of hers, Giovanna, to ask for

permission for her, and, won't actually attend the assembly herself.

In (16), the teacher is an immediate associate of Giovanna and the two share the class as her associates. The discourse-context we have set up pushes a non-minimal proxy control reading between the matrix subject *l' insegnante* 'the teacher' and the innermost embedded subject, across the medial subject. Despite this, such a reading is definitely impossible. Analogous tests for German and Tamil yield the same results.

If the proxy control dependency did instantiate a type of non-obligatory control, such a minimality restriction would be entirely unexpected. The presence of such a restriction, therefore, should already be taken as evidence showing that proxy control instantiates a species of OC.

3.2 Bound variable status

A standard test for the bound variable status of pro-forms is whether they yield only sloppy readings or whether they can yield both strict and sloppy readings, under ellipsis. A bound variable is predicted to yield only the former, but a deictic form is compatible with the latter.

When we apply this diagnostic to our proxy control structures, the results are again very clear: only a sloppy reading is possible under ellipsis. Thus, in the Italian proxy control example in (17), the only way to get a strict reading is if Pietro and Giovanna share their f(i) by virtue of, for instance, happening to be in the same class — this is, of course, nothing but an instance of accidental coreference:

Giovanna $_i$ della 3D ha chiesto alla responsabile $_j$ [di $EC_{f(i)}$ poter utilizzare Giovanna of.the 3D has asked to.the responsible C may.INF use.INF l' aula magna per la visione di un film] e Pietro $_k$ della 4F uguale the lecture hall for the vision of a film and Pietro of.the 4F same ... $[EC_{f(k),*f(i)}]$. 'Giovanna from the 3rd D asked the person in charge for per-

mission to use the lecture hall to watch a film and Pietro from the 4th F, too.'

The fact that we can only get sloppy readings under ellipsis in turn shows that the controlled subject in proxy control environments is interpreted as a bound variable, a typical signature of OC.⁸

⁸Italian does not have vP ellipsis so the example in (i) involves TP ellipsis. Nonetheless, the subjects need not be identical, which is the only relevant factor here. See the sloppy reading for a standard example

A different way to illustrate the bound variable status of the controlled element is with structures involving overt quantifier-variable binding, which can also yield proxy control. Thus, in German (18), the proxy control reading survives under a distributive reading of $i \rightarrow f(i)$:

- (18) a. *Context:* The DGfS (annual meeting of the German Linguistics Association) is held in Leipzig. The conference is composed of a number of different workshops, each one organized by different work groups. Each work group has a person responsible for organizing the rooms with Mrs Pohl who administrates the lecture building. The room organizers, however, all have so many other duties that they won't get a chance to actually attend the conference and use the rooms themselves.
 - b. Jede Organisatorin $_i$ hat Frau Pohl $_j$ gebeten, $[EC_{f(i)}]$ das Hörsaalgebäude für each organizer has Mrs Pohl asked the lecture building for ihren $_i$ Workshop nutzen zu dürfen]. 'Each organizer has asked Mrs Pohl her workshop use.INF to may.INF for permission to use the lecture building for her workshop.'

Similarly, Italian (19) can only mean that each student representative i asks on behalf of his or her own class f(i):

[Ogni rappresentante di classe] $_i$ ha chiesto alla responsabile $_j$ [di $EC_{f(i)}$ poter each representative of class has asked to the responsible C may.Inf utilizzare l' aula magna per la loro $_i$ assemblea di classe. 'Each class repuse.Inf the lecture hall for the their assembly of class resentative asked the person in charge for permission to use the lecture hall for their class assembly.'

3.3 Definition of Proxy Control

Based on the discussion in this section thus far, we will now take it to be uncontroversial that proxy control instantiates a new form of obligatory control, and define this phenomenon as follows:

of OC in (i).

⁽i) Maria ha cercato [di EC_i tagliar- Si_i i capelli] e Gianni_j uguale [... $EC_{j,*i}$]. 'Maria has tried to Maria has tried C cut-REFL the hair and Gianni same cut her hair and Gianni, too (tried to cut his hair).'

- (20) Informal definition of Proxy Control

 Proxy Control involves an obligatory control relation between an individual and another that is discourse-contextually related to it.
- (21) Formal definition of Proxy Control

 Proxy Control involves an obligatory-control dependency between an individual i and a (discourse-contextual) function f defined on i (yielding f(i)).

4 Proxy control is syntactic

There is an ongoing debate in the literature about whether the control dependency should be instantiated in the (narrow-)syntax at all, assuming a Y-modular grammatical architecture (Chomsky 2001, et seq.), whether it should be relegated to the realm of semantics (Chierchia 1989, Culicover and Jackendoff 2001) or, indeed, whether one should posit a systematic distinction between types of control dependency, with some being implemented in the syntax and others only in the semantics (as Wurmbrand 2002, does, for instance). The role of syntax is potentially even more nebulous/in question in structures involving partial or proxy control since the denotation of the controllee in these cases is essentially a function of the discourse context.

On the other side of the debate, robust morphosyntactic evidence from agreement and anaphora paradigms and complementizer effects from a number of languages (Rizzi 1997, Bianchi 2003, Giorgi 2010, Sundaresan 2012, Nishigauchi 2014, Charnavel 2015, Sundaresan 2016, a.o.) have argued that such discourse-contextual information does indeed interface with the syntactic module systematically and at designated structural "access points". Perhaps more to the point, Landau (2015b) presents agreement data from Greek and Turkish to argue that logophoric control is morphosyntactically implemented (though he argues that agreement itself is a PF rather than a narrow-syntactic phenomenon).

Turning specifically to the case of proxy control, the minimality restriction on the proxy-controller, discussed in 3.1 already suggests that proxy control is sensitive to structural restrictions. However, it is not entirely implausible to derive such a restriction in purely LF-semantic terms. The bound variable status of the controlled subject, discussed in Section 3.2 could, similarly, also be derived solely at LF.

In the rest of this section, however, we provide strong evidence in support of the idea that the proxy control (and, by extension therefore, also the partial control) dependency is, in fact, (morpho-)syntactic in nature. To this end, we present below novel evidence involving ϕ -agreement triggered on subject floating quantifiers (FQ) in the control complement in Italian and Brazilian Portuguese (BP, henceforth) and in secondary predicates in BP.

4.1 Agreement evidence from floating quantifiers

The problem with silent subjects, of course, is that they are silent: as such, they don't wear their features (ϕ or otherwise) on their sleeve. But in both Italian and BP, floating quantifiers exhibit overt ϕ -agreement with the DP they modify. In control complements in these languages, the floating quantifier associated with the silent, controlled subject can thus be used both to identify the ϕ -features carried by the silent subject and to show that the proxy control relation that yielded these ϕ -features must have happened early enough in the grammatical derivation to then trigger agreement on the floating quantifier.

4.1.1 Floating quantifiers in Italian

The Italian examples below all involve the floating quantifier tutt- 'all', which exhibit ϕ -agreement with the controlled subject, and show that the value of agreement varies according to the gender of the teacher. Thus, in (22a) the floating quantifier can be masculine plural and refer to the teacher and the girls per default, whereas (22b) shows that the floating quantifier can also be feminine plural as the teacher and the girls are all feminine:

(22)Quando [noi ragazz-e] $_{f(i)}$ della 4F andiamo in gita, [la nostra maestr-a]_i when we girls-F.PL of the 4F go.1PL in excursion the our teacher-F.sg chiede alla responsabilie [di $EC_{i+,f(i)}$ poter fare colazione tutt-i asks to.the responsible C may.INF do.INF breakfast all-M.PL nella stessa sala]. 'When [we girls] $_{f(i)}$ go on a school trip, [our teacher] $_i$ in.the same room asks the person in charge for permission $[EC_{i+f(i)}]$ to have breakfast all in the same room].'

⁹Similar strategies have been used in exhaustive control structures with data from Icelandic (Bobaljik and Landau 2009) and Italian (Cecchetto and Oniga 2004)

Quando [noi ragazz-e] $_{f(i)}$ della 4F andiamo in gita, [la nostra maestr-a]_i of the 4F go.1PL in excursion the our we girls-F.PL responsabilie [di $EC_{i+,f(i)}$ poter chiede alla fare colazione tutt-e asks may.INF do.INF breakfast all-F.PL to.the responsible C nella stessa sala]. 'When [we girls] $_{f(i)}$ go on a school trip, [our teacher] $_i$ in.the same room asks the person in charge for permission $[EC_{i+,f(i)}]$ to have breakfast all in the same room].'

The gender resolution rules in Italian given in (23) can now be used to test whether not only a partial control, but also a proxy control reading is possible when the controlled subject refers only to the girls:

- (23) Gender resolution in Italian
 - a. Only males \rightarrow M.PL
 - b. Mixed males and females \rightarrow M.PL
 - c. Only females \rightarrow F.PL; M.PL by default

The examples in (22) set the empirical baseline for floating quantification agreement in control complements in Italian. The deciding examples are those given in (24). In (24a) the teacher is masculine and his associates all feminine. Here the plural agreement on the floating quantifier is not telling as it could be the result of gender resolution in the partial control reading or the result of a default masculine in the proxy control reading. The sentence in (24b) however, crucially disambiguates: because the teacher is male, the feminine plural on the floating quantifier can only refer to the fully female group, i.e. the girls, f(i). It is important to note, here, that the adjunct temporal clause containing the DP *noi ragazze* 'the girls' can be omitted entirely and just be a part of the salient discourse-context (as indicated by its being enclosed in parentheses).

(24)Quando noi ragazz- $e_{f(i)}$ della 4F andiamo in gita, il nostro maestr-o_i a. when we girls-F.PL of the 4F go.1PL in excursion the our teacher-m.sg responsabilie [di $EC_{i+,f(i)}$ poter chiede alla fare colazione tutt-i to.the responsible may.INF do.INF breakfast all-M.PL 'When us girls go on a school trip, our teacher asks the nella stessa sala]. in.the same room person in charge for permission to have breakfast all in the same room.'

b. (Quando noi ragazz- $e_{f(i)}$ della 4F andiamo in gita), il nostro maestr- o_i when we girls-f.p.L of the 4F go.1pL in excursion the our teacher-M.sc chiede alla responsabilie [di $EC_{f(i),*i+}$ poter fare colazione tutt-e asks to the responsible C may.INF do.INF breakfast all-f.p.L nella stessa sala]. 'When us girls go on a school trip, our teacher asks the in the same room person in charge for permission to have breakfast all in the same room.'

4.1.2 Floating quantifiers in Brazilian Portuguese

The same effect can be replicated with floating quantifiers in Brazilian Portuguese (BP) which, just like in Italian, exhibit ϕ -agreement that can co-vary with the ϕ -features of a proxy-controlled silent subject.

Again, gender resolution works so that feminine plural agreement may only refer to a fully female group. This is the case in (25a), which is the crucial sentence. Here a male teacher is the controller, but the agreement on the floating quantifier is feminine plural. This is only possible in a proxy-control scenario. (25b) shows that the masculine plural agreement may refer to the girls by default, yielding proxy control, or to the teacher plus the girls, yielding partial control. (25c) shows that the invariant form *tudo* can also be used for generic reference so that it can satisfy proxy control, partial control or exhaustive control depending on the context.

- (25) a. Quando [nós garot-as] $_{f(i)}$ vamos a uma viagem da escola, [nosso professor] $_i$ when we girl-F.PL go.1PL to a trip of school our teacher.M.SG pede ao responsavel [para $\mathrm{EC}_{f(i),*i+}$ tomar-mos café tod-as junt-as asks to.the responsible C get.INF-1.PL coffee all-F.PL together-F.PL]. 'When [we girls] $_{f(i)}$ go on a school trip, [our teacher] $_i$ asks the person in charge [for permission $\mathrm{EC}_{f(i),*i+}$ to have breakfast all together].'
 - b. Quando [nós garot-as] $_{f(i)}$ vamos a uma viagem da escola, [nosso professor] $_i$ when we girl- $_{\rm F.PL}$ go.1pl to a trip of school our teacher.m.sG pede ao responsavel [para $_{\rm EC}_{f(i),i+}$ tomar-mos café tod-os junt-os asks to.the responsible C get.INF-1.pl coffee all-m.pl together-m.pl]. 'When [we girls] $_{f(i)}$ go on a school trip, [our teacher] $_i$ asks the person in charge [for permission $_{\rm EC}_{f(i),*i+}$ to have breakfast all together].'
 - c. Quando [nós garot-as] $_{f(i)}$ vamos a uma viagem da escola, [nosso professor] $_i$ when we girl-F.PL go.1PL to a trip of school our teacher.M.SG

pede ao responsavel [para $\mathrm{EC}_{f(i),i+,i}$ tomar-mos café tudo junto]. asks to the responsible C get.INF-1.PL coffee all together 'When [we girls] $_{f(i)}$ go on a school trip, [our teacher] $_i$ asks the person in charge [for permission $\mathrm{EC}_{f(i),*i+}$ to have breakfast all together].'

4.2 Agreement evidence from secondary predication

Secondary predicates in BP, like floating quantifiers, are also overtly marked for ϕ —agreement with a subject or object. Thus, structures involving secondary predication in the control clause, where the secondary predicate agrees with the controlled subject, may be adduced to glean information about the ϕ —featural make-up of this subject. This is illustrated below — the secondary predicate in all these examples is descalc- 'barefoot' which modifies and ϕ —agrees with the controlled subject:

- (26) a. Quando [nós mulheres] $_{f(i)}$ vamos ao centro de meditação, [nosso diretor] $_i$ when we women.f.pl go.1pl to.the centre of meditation our director.m.sg pede ao responsavel [para $\mathrm{EC}_{f(i),i+}$ assistir-mos ao seminário descalç-os asks to.the responsible C assist.INF-1pl to.the seminar barefoot-m.pl ['When [we women] $_{f(i)}$ go to the centre of meditation, [our director] $_i$ asks the person in charge [for permission $_{f(i),i+}$ to attend to the seminar barefoot].'
 - b. Quando [nós mulheres] $_{f(i)}$ vamos ao centro de meditação, [nosso diretor] $_i$ when we women.F.PL go.1PL to.the centre of meditation our director.M.SG pede ao responsavel [para $\mathrm{EC}_{f(i),*i+}$ assistir-mos ao seminário descalç-as asks to.the responsible C assist.INF-1PL to.the seminar barefoot-F.PL] 'When [we women] $_{f(i)}$ go to the centre of meditation, [our director] $_i$ asks the person in charge [for permission $\mathrm{EC}_{f(i),*i+}$ to attend to the seminar barefoot].'

The sentence in (26a) has the secondary predicate showing masculine agreement in the control complement. This is compatible with both partial control, where the director asks permission for himself and for the women, and with proxy control, where he asks permission for the women alone, the latter being a case of resolved masculine agreement. The deciding sentence is that in (26b) where the secondary predicate *descalç*- 'barefoot' surfaces with feminine agreement. Here, the partial control reading is strictly ruled out:

only a proxy control reading, where the director solicits permission for the women alone, is licit.¹⁰

4.3 Implications of the agreement data

The feminine agreement patterns that go along with the proxy control readings, on the floating quantifier in Italian (24b) and BP (25a) as well as on the secondary predicate in (26b) lead us to two important conclusions. First, since the floating quantifier and secondary predicate reflect the ϕ -features of the controlled subject, it shows that this subject bears feminine ϕ -features. Second, and relatedly, since the features on the quantifier are triggered by agreement, it shows that the proxy control dependency which yielded these features must itself have happened before this agreement took place in order to be able to feed it.

If we assume that ϕ -agreement due to Agree is a narrow-syntactic phenomenon, then proxy control must also happen in narrow syntax before Agree, and if Agree is a post-syntactic PF phenomenon (Bobaljik 2008), then the proxy control dependency must have been instantiated earlier at PF or in the narrow syntax. What is clear from these examples, however, is that proxy control cannot be an *exclusively* LF or discourse-pragmatic dependency. In fact, we can be even more specific than that. Given that proxy control clearly *also* has an LF semantic component (given the variable binding involved in the sentences given in Section 3.2), we can say that part of the proxy control dependency must be instantiated in the narrow syntax itself.

5 Formal analysis of proxy control

Two major syntactically based approaches in the generative tradition to the phenomenon of obligatory control are the movement-based approach of (Boeckx et al. 2010, and precedents) and the PRO-based one (in the sense of Landau 2015b, and predecessors thereof). Simplifying greatly, the former claims that OC is the result of thematic A-movement: the

¹⁰In contrast to Italian, the deontic modal in the control complement in BP cannot appear overtly in the above sentences:

⁽i) Quando nós garot-as $_{f(i)}$ vamos a uma viagem da escola, nosso professor pede ao when we girl-f.pl go.1pl to a trip of school our teacher.m.sg asks to.the responsavel [para poder-em tomar café tod-as junt-as]. responsible C may.inf-1.pl get.inf coffee all-f.pl together-f.pl

controlled subject is an A-copy of the controller. The latter type of analysis, on the other hand, argues that the controller is not internally but externally merged in the matrix clause: the controllee is a distinct null pro-form or "PRO" that stays in situ in the embedded clause and, much like an anaphor (perhaps even exactly like it), is referentially dependent on the controller in the immediately higher clause in some manner (e.g. via Agree).

Having established that the proxy control dependency must be syntactically motivated, we now turn to the question of whether it is more amenable to a treatment under a movement-based on PRO-based approach. To this end, we argue below in Section 5.1, that proxy control structures pose a serious challenge to movement based theories of control. On the strength of this, we propose in Section 5.2 that proxy control should be analyzed in terms of mediated logophoric control along the lines of Landau (2015b). To capture the dependency of proxy readings with deontic modality, we argue that the perspectival C head that mediates the proxy control dependency in Landau's system instantiates a species of deontic modal which we label Mod_{deontic}, and conclude the section with sample derivations.

5.1 Problems for the movement theory

The major strength of the movement theory of control (MTC) is its theoretical elegance: the thesis that the controller and controllee are simply two links of a thematic A-chain automatically yields the silence of the controlled element as well as a referential dependence between the two elements.

However, precisely because the controller and controllee are predicted to be identical under such an approach, *non*-exhaustive control dependencies represent a serious challenge (see Landau 2013, for discussion). Simply put, movement of a semantically plural DP from the control complement into the matrix clause cannot make the DP singular, i.e. in the case of partial control, $Move(DP_{i+})$ cannot output DP_i . One line of recent alternative analyses proposes that the controlled subject associates with a null comitative PP present in the control complement which in turn licenses the plural/collective interpretation of the controlled subject with plural/collective predicates. The association is proposed to be either the result of adjunction to VP (Hornstein 2003, Słodowicz 2008, Boeckx et al. 2010, Sheehan 2012; 2014), or of adjunction to the implicit subject to form a Big DP (Rodrigues 2007). Rodrigues (2007)'s analysis involving a null adnominal comitative PP inside the controlled DP is illustrated for the partial control sentence in (27)

below:

(27) The [mob boss]_i agreed [[$_{DP}$ EC_i [$_{PP}$ with [the other mobsters]_j]] $_{i+j}$ to meet at the hideout as planned].

Note that the controller and controllee are still identical in (27), just as desired: i.e. they instantiate an exhaustive control dependency due to A movement. The non-exhaustive reference yielding an effect of partial control is not part of this movement chain at all but is independently contributed by the (posited) presence of the comitative PP inside the controlled DP. This is a clever way to derive partial control under a movement-based approach, in light of the challenges described above (though see Landau 2007, and especially Landau (2016) for a number of arguments against the null comitative approach).

As a null hypothesis, proxy control and partial control should receive the same treatment. However, a null comitative analysis such as that described above will patently fail when extended to the cases of proxy control discussed here. An immediate problem is that proxy control simply cannot be expressed via a comitative relationship — recall again the discussion on the nature of the proxy relation, in Section 2.2. But an even more devastating problem is that the individual denoted by the controller need not be a member of the set of individuals denoted by the set of controllees. For the MTC, this would mean that there can be no DP with reference i in the control CP that moves to the matrix clause. Put another way, the reference of the DP that moves has to be f(i), and the control relation between the DP and its A-moved copy needs to be $i \to f(i)$. In other words, the tail and head of the A-movement chain have to have different referents, a clear problem. Even if this seemingly insurmountable issue were to be somehow circumvented, the MTC would still have an additional problem: namely if i and f(i) do not link to the same DP after all, where would the DP with reference f(i) move to from the control CP?¹¹

 $^{^{11}}$ An MTC-minded derivation solving this particular problem may look like this: The DP with reference f(i) starts out as the subject of the embedded clause. It then (sideward-)moves to merge with a P in the matrix clause licensing an oblique role with the meaning of 'for/on behalf of'. The connection between i and f(i) would then occur in the matrix clause because the 'on behalf of' PP is associated with the seeker of permission. The PP can then either remain implicit or, as is in fact possible, be pronounced. One major problem exists with such a solution: unless such a derivation can be sensibly restricted to only these cases of proxy control, opening up the possibility of such a derivation will necessarily lead to massive overgeneration. Basically, it would allow $i \to f(i)$ control relations across the board, with any kind of control complement, and with any kind of thematic role, as e.g. a sentence like (i).

⁽i) *John_i told the boy_i on behalf of his friends_k EC_k to go home.

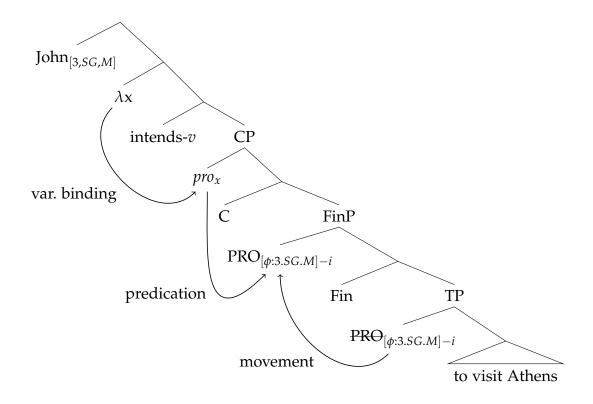
The discussion thus far has shown that proxy control structures pose a serious challenge to movement based approaches of control. We will thus reject a movement-based analysis of the proxy control facts in favor of a PRO-based analysis of these constructions, following in particular (Landau 2015b, and precedents).

5.2 Non-exhaustive control as logophoric control

For Landau (2008; 2015b;a), exhaustive OC obtains when there is a direct Agree relation between the controller and controllee (= PRO) – yielding a "predicative control" dependency. Non-exhaustive OC, on the other hand, obtains as a kind of *mediated "logophoric" control* (Landau 2015b): i.e. it is an Agree relation that is mediated via one (or more) intervening C heads in the control clause. Below, we will adapt Landau's analysis of logophoric control to yield the proxy control dependencies described thus far. Landau argues that logophoric control involves two chains of Agree dependency: The first involves a variable binding relationship between the controller and a perspectival *pro* variable – denoting the *Author* or *Addressee* of the control predicate – in the specifier of a logophoric/perspectival complementizer (containing the coordinates of an "internal logophoric center" as in Bianchi 2003, or a "perspectival center" as in Sundaresan (2012)) inside the control CP. The second involves a predicational relationship, modelled as Agree, between this variable and a PRO in the complement selected by the perspectival complementizer.

The sentence in (28) below would involve a logophoric control dependency which is thus implemented as in (29):

(28)	John intends to visit Athens.
(29)	



5.3 Deriving proxy control as logophoric control

We now have all our puzzle pieces assembled together. Below, we will offer a preliminary formal analysis of the following core conclusions: (i) Proxy control is a kind of obligatory control that is derived along the lines of Landau's logophoric control model described above (ii) Proxy control always and only obtains in the presence of deontic modality in the control complement: thus, the control predicate must select a CP that encodes information about deontic modality.

The most elegant way to combine the conclusions in (i)-(ii) is to propose the following. Following prior work (cf. Bhatt 2006, Hacquard 2006), we propose that this reading is encoded on a (potentially covert) deontic modal head that lives in a species of C (call it "Mod") in the left periphery of this CP. This same Mod_{deontic} head is equivalent to Landau (2015b)'s logophoric/perspectival C head.¹² in that it is the head that mediates the control dependency between the controller DP and the PRO in Spec, TP (see Cinque 1999, Hacquard 2006, for arguments that deontic (necessity and ability) modalities occur

 $^{^{12}}$ To this end, it might make sense to think of $Mod_{deontic}$ as a potentially parametrized instantiation of the Persp head in Sundaresan (2012). We leave this as an open question for the moment.

above T and Fin).

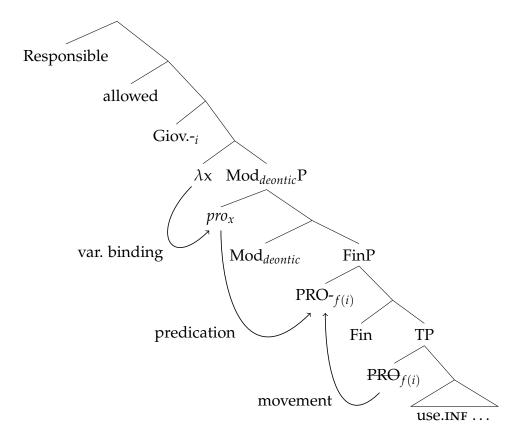
Consider now a proxy control sentence as in (12b), repeated below:

(30) La responsabile j ha permesso a Giovanna [di $EC_{f(i)}$ poter utilizzare l' The responsible has allowed to Giovanna C may.Inf use.Inf the aula magna per la visione del film]. 'The person in charge allowed Giolecture hall for the vision of the film vanna to use the lecture hall to watch a film.'

The derivation for (30) proceeds as follows: Mod_{deontic} encodes the semantics of deontic ability modality (with a contextually determined force): the *pro* operator it selects in its Spec thus always represents the *Addressee* of the permission coordinate associated with Mod_{deontic} (i.e. the (potential) Receiver of permission).¹³ The *pro* is now variable bound in the immediately superordinate clause – with the effect that it is anteceded/controlled by the *Addressee* of permission, namely *Giovanna*. In the complement/controlled clause, the *pro* enters a predicational relationship with the PRO in Spec, FinP in the complement of Mod. By transitivity, this yields an indirect/mediated dependency between PRO and *Giovanna*. The derivation looks like that in (31) below:

(31)

¹³We may additionally have to assume that the actual modal predicate *poter* in this sentence is either externally or internally merged into Mod. Either way, it is clearly associated with it. We leave this issue open for the present.



We assume, crucially, that it is the presence of the medial $\operatorname{Mod}_{deontic}$ head in the control complement that makes non-exhaustive control (including the $i \to f(i)$ proxy control relation) possible — though we remain agnostic for now about the precise technicalities of its implementation. The idea, simplifying and condensing greatly, is that the C layer is an "access point" for discourse-contextual information (see, for instance Rizzi 1997, Cinque 1999, Bianchi 2003, Giorgi 2010, a.o.), including information pertaining to different flavors of modality (see e.g. Ramchand 2012, von Fintel 2006, a.o.). Thus its presence must be assumed in order for non-exhaustive control relations like partial control (which may be formalized as a relation between an individual i and a contextually-defined group of individuals properly containing that individual – i.e. i+10 to be made to work (see also the brief discussion of "context extension" in Landau 2015b, 77, Pearson 2013. Further empirical support for this position is provided by the fact that proxy control in (30) is indeed only possible with the presence of the deontic modal

 $^{^{14}}$ Even more recently, Landau argues that the non-exhaustive nature of partial control reference is due to a mismatch between the morphological and semantic *φ*-features on PRO (Landau To Appear).

predicate poter – though an exhaustive control dependency is possible without it:15

(32) La responsabile_j ha permesso a Giovanna_i [di $PRO_{f(i)}$??/*(poter) utilizzare The responsible has allowed to Giovanna C may.INF use.INF I' aula magna per la visione del film]. 'The person in charge allowed the lecture hall for the vision of the film Giovanna_i [$PRO_{f(i)}$ to use the lecture hall to watch a film].'

6 Conclusion and open issues

In this paper, we have provided data from Brazilian Portuguese, German, Italian, and Tamil for a new kind of non-exhaustive obligatory control (OC) that we have termed proxy control. Proxy control which, we have argued, obtains only in the scope of deontic modality, instantiates a control dependency between one set of individuals i and another set of individuals that are discourse-contextually related to it — namely, f(i). To this extent, it essentially parallels proxy relations discussed in the realm of anaphora (Jackendoff 1992, Lidz 2004, Reuland and Winter 2009, Reuland 2011), although the nature of possible proxy relations in each is fundamentally different. We have also proposed that the environments in which proxy control occurs are a proper subset of those that license partial control. Such a conclusion then predicts that proxy control instantiates a species of OC rather than NOC, since partial control itself encodes an OC relation (Landau 2013). This prediction is confirmed: empirical diagnostics involving proxy control structures in Italian and German show that the controller must be a co-dependent of the control clause (i.e. in the immediately superordinate clause) and the controllee must be a bound variable, thus satisfying the two hallmarks of OC constructions crosslinguistically. Turning next to the not unreasonable question of whether proxy control should be entirely implemented in the semantics and/or in discourse pragmatics alone, we answered

 $^{^{15}}$ In fact, also the partial control reading in (i) is impossible without the additional modal *poter* – which is exactly what we predict, given the discussion of the relationship between partial and proxy control dependencies in Section 2.5. Interestingly, too, clitic climbing of the reflexive -si from the lexical verb to the modal verb in the control complement is only permitted with the exhaustive reading:

⁽i) Il presidente ha permesso al capo reparto [di EC_{i+} *(poter) anche non riunir-si nel the president has permitted to.the chief section C may.Inf also not gather.Inf-refl in.the caso in cui dovesse reputar-lo inutile]. 'The president allowed the section chief to also case in which must.sbjv consider.Inf-it useless not gather in case he considered it useless.'

the question in the negative by providing evidence showing that proxy control dependencies could feed morphosyntactic agreement that was overtly expressed on floating quantifiers and secondary predicates in Brazilian Portuguese and Italian. In the section immediately above, we showed that proxy control poses a serious challenge to the MTC: in particular, a null comitative analysis such as that proposed for partial control structures cannot obviously be extended to the cases of proxy control discussed here, both because the referent denoted by the controller is not contained in the set of individuals denoted by the controllee, and because the proxy relation is not comitative in nature. We have thus proposed that proxy control, like partial control and non-exhaustive control more generally, be treated as an instance of logophoric control via a mediating C head in the sense of Landau (2015b;a). Specifically, we argue that this intervening C head is a (potentially covert) deontic Mod_{deontic} head in the control complement, which is then associated with the modal predicate (silent or overt) in this clause in some way. This then yields the desired dependency between proxy control and deontic modality in the control clause.

Many issues still need to be ironed out; others remain entirely unaddressed. Given that we have reported data on a new grammatical phenomenon, this is to be expected. With respect to the former, it remains to be clarified exactly how the ϕ -features of the controllee in the proxy dependency are formally determined. The possible types of proxy reading available for proxy control structures and the extent to which these are subject to variation crosslinguistically also needs to be empirically clarified. With respect to the latter, it is entirely unclear at this stage how our proxy reading sentences relate to issues of *de se* and *de re*. For instance, if the actual controller *i* herself does not need to be involved in the actual control scenario, as in the proxy control structures discussed here, what implications do these have for issues of *de se*? And how (if at all) do the differences between proxy control and proxy anaphora, discussed with respect to the Madame Tussaud examples in (6a) vs. (7a) play into this?

Further typological research also needs to be undertaken to nail down the types of predicates that license proxy control readings crosslinguistically. For instance, there is preliminary evidence from German that the availability of a proxy control reading is capable of being restricted not only by the choice of predicate in the selecting clause but also in the controlled constituent itself. This is illustrated in the sentences below — the availability of proxy control is more restricted/marked when the embedded predicate is

hören 'hear/listen' but entirely licit when it is nutzen 'use': 16

- (33) a. "Der Student $_i$ bat die Verantwortliche, $\mathrm{EC}_{f(i)}$ den Vortrag im Neuen the student asked the responsible the lecture in the new Seminargebäude hören zu dürfen. 'The student asked the person in seminar building hear.INF to may.INF charge for permission to listen to the lecture in the new seminar building.'
 - b. Der Student $_i$ bat die Verantwortliche, $\mathrm{EC}_{f(i)}$ den Hörsaal im Neuen the student asked the responsible the lecture-hall in the new Seminargebäude nutzen zu dürfen. 'The student asked the person in seminar building use.INF to may.INF charge for permission to use to the lecture-hall in the new seminar building.'

These issues and others are matters of ongoing research.

References

Bhatt, Rajesh. 2006. Covert modality in non-finite contexts. De Gruyter.

Bianchi, Valentina. 2003. On finiteness as logophoric anchoring. In *Temps et point de vue/Tense and Point of View*, ed. Jacqueline Guéron and L. Tasmovski, 213–246. Nanterre: Université Paris X.

Bobaljik, Jonathan, and Idan Landau. 2009. Icelandic control is not a-movement: The case from case. *Linguistic Inquiry* 40:113–132.

Bobaljik, Jonathan David. 2008. Where's Phi? Agreement as a Post-Syntactic Operation. In *Phi-Theory*, ed. Daniel Harbour, David Adger, and Susana Béjar, 295–328. Oxford University Press.

Boeckx, Cedric, Norbert Hornstein, and Jairo Nunes. 2010. *Control as movement*, volume 126 of *Cambridge Studies in Linguistics*. Cambridge: Cambridge University Press.

Cecchetto, Carlo, and Renato Oniga. 2004. A challenge to null case theory. *Linguistic Inquiry* 35:141–149.

¹⁶We thank Hubert Truckenbrodt (p.c.) for bringing this kind of example to our attention. The German author among us agrees with Truckenbrodt on the existence of a contrast but not on its extent and feels, rather, that the contrast between (33a)-(33b) is not that large. More native speakers must clearly be consulted on this point.

- Charnavel, Isabelle. 2015. Apparent exemption from Condition A: a perspective-based theory. Http://ling.auf.net/lingbuzz/002683.
- Chierchia, Gennaro. 1989. Structured meanings, thematic roles, and control. In *Properties, types, and meaning*, ed. Gennaro Chierchia, Barbara Partee, and Raymond Turner, volume II: Semantic Issues of *Studies in Linguistics and Philosophy*, 131–166. Dordrecht: Kluwer Academic Publishers.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken hale: A life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, MA: MIT Press.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. New York: Oxford University Press.
- Culicover, Peter W., and Ray Jackendoff. 2001. Control is not movement. *Linguistic Inquiry* 32:493–512.
- von Fintel, Kai. 2006. Modality and language. In *Encyclopedia of philosophy*, ed. Donald Borchert. Detroit: MacMillan Reference USA. Http://mit.edu/fintel/fintel-2006-modality.pdf.
- Giorgi, Alessandra. 2010. *Towards a syntax of indexicality*. Oxford Studies in Theoretical Linguistics. Oxford: Oxford University Press.
- Hacquard, Valentine. 2006. Aspects of modality. Doctoral Dissertation, MIT.
- Hornstein, Norbert. 1999. Movement and control. *Linguistic Inquiry* 30:69–96.
- Hornstein, Norbert. 2003. On control. In *Minimalist syntax*, ed. Randall Hendrick, 6–81. Oxford: Blackwell Publishing.
- Jackendoff, Ray. 1992. Mme. Tussaud meets the binding theory. *Natural Language and Linguistic Theory* 10:1–31.
- Landau, Idan. 2007. Movement-resistant aspects of control. In *New horizons in the analysis of control and raising*, ed. William D. Davies and Stanley Dubinsky, 293–325. Dordrecht: Springer.
- Landau, Idan. 2008. Two routes of control: Evidence from case transmission in russian. *Natural Language and Linguistic Theory* 26:877–924.

- Landau, Idan. 2013. *Control in generative grammar*. Cambridge: Cambridge University Press.
- Landau, Idan. 2015a. Direct variable binding and agreement in obligatory control. Ms., Ben Gurion University.
- Landau, Idan. 2015b. A two-tiered theory of control. Cambridge, Mass.: MIT Press.
- Landau, Idan. 2016. Against the null comitative analysis of Partial Control (a squib). V3, lingbuzz/002546.
- Landau, Idan. To Appear. Agreement at PF: an argument from partial control. Syntax.
- Lidz, Jeffrey. 2004. Causation and refexivity in Kannada. In *Clause structure in South Asian languages*. Springer.
- Nishigauchi, Taisuke. 2014. Reflexive binding: awareness and empathy from a syntactic point of view. *Journal of East Asian Linguistics* 23:157–206.
- Pearson, Hazel. 2013. The sense of self: Topics in the semantics of de se expressions. Doctoral Dissertation, Harvard University, Cambridge.
- Petter, Marga. 1998. *Getting PRO under control*, volume 8 of *LOT International Series*. The Hague: HIL, Holland Academic Graphics.
- Ramchand, Gillian. 2012. Indexical vs. anaphoric modals. University of Tromsø.
- Reuland, Eric. 2011. Anaphora and language design. Cambridge, Mass.: MIT Press.
- Reuland, Eric, and Yoad Winter. 2009. Binding without identity: Towards a unified semantics for bound and exempt anaphors. In *Proceedings of 7th Discourse Anaphora and Anaphor Resolution Colloquium*.
- Rizzi, Luigi. 1997. The fine structure of the left periphery. In *Elements of grammar*, ed. Liliane Haegeman, 281–337. Dordrecht: Kluwer Academic Publishers.
- Rodrigues, Cilene. 2007. Agreement and flotation in Partial and Inverse Partial Control configurations. In *New horizons in the analysis of control and raising*, ed. William D. Davies and Stanley Dubinsky, 213–229. Dordrecht: Springer.

- Sag, Ivan, and Carl Pollard. 1991. An integrated theory of complement control. *Language* 67:63–113.
- Schladt, Mathias. 2000. The typology and grammaticalization of reflexives. In *Reflexives: Forms and functions*, ed. Zygmunt Frajzyngier and Traci Curl. Amsterdam: Benjamins.
- Sheehan, Michelle. 2012. A new take on Partial Control: An overview. *Cambridge Occasional Papers in Linguistics* 6:1–47.
- Sheehan, Michelle. 2014. Partial Control in the Romance languages: The covert comitative analysis. In *Romance languages and linguistic theory 2012: Papers from 'going romance' leuven 2012*, ed. Karen Lahousse and Stefania Marzo, 181–198. Amsterdam: John Benjamins.
- Słodowicz, Szymon. 2008. *Control in Polish complement clauses*. Munich: Verlag Otto Sagner.
- Stiebels, Barbara. 2007. Towards a typology of complement control. ZAS Papers in Linguistics 47:1–80.
- Sundaresan, Sandhya. 2012. Context and (co)reference in the syntax and its interfaces. Doctoral Dissertation, University of Tromsø/Universität Stuttgart, Tromsø.
- Sundaresan, Sandhya. 2016. Perspective is syntactic: evidence from anaphora. Http://ling.auf.net/lingbuzz/002893.
- Williams, Edwin. 1980. Predication. *Linguistic Inquiry* 11:203–238.
- Wurmbrand, Susi. 2002. Syntactic vs. semantic control. In *Studies in comparative Germanic syntax*, ed. C. Jan-Wouter Zwart and Werner Abraham, 95–129. Amsterdam: John Benjamins.