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The PRO-wh connection in modal existential wh-constructions

An argument in favor of semantic control

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Abstract Recent discussion of obligatory control in the literature mostly concentrates on the issue of which syntactic module (movement, agreement, etc.) is responsible for the establishment of the control relation. This paper looks at the issue of control from a higher order perspective. Abandoning the presupposition that control constituents denote propositions and that, therefore, control must be syntactic, I deliver an argument in favor of the property-type analysis of control constituents and, by transitivity, for a semantic resolution of the control relation. The argument comes from modal existential wh-constructions and in particular from a strong parallelism between obligatorily controlled PRO and wh-expressions. It is revealed that PRO and wh-words form a natural class, to the exclusion of all other types of nominal expressions. This is then turned into an argument of treating PRO (and wh-words) essentially as a logical lambda-operator, naturally leading to the property theory of control. In addition, the article contributes to our understanding of the syntax, semantics, and typology of modal existential wh-constructions. It is argued that at least one type of these constructions, what I call "control MECs", is embedded (minimally) by a complex predicate BE+FOR which expresses the state of availability (BE) which makes it possible for someone to profit (FOR) from the event characterized by the modal existential wh-construction.

Keywords modal existential wh-constructions · obligatory control · PRO · wh-words · syntax-semantics interface

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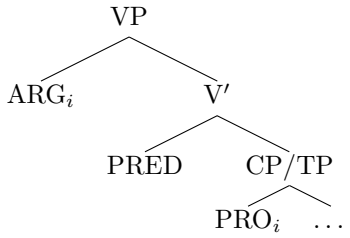
1 Introduction

This paper is intended as a contribution to the discussion of the syntax and semantics of obligatory control. Drawing from the empirical domain of modal existential wh-constructions (MEC; see Grosu 2004), illustrated in (1) for Spanish:[1]

(1) Tengo [$_{\text{MEC}}$ con quién hablar].
have:1sg with who speak:inf
'There is somebody I can speak with.'

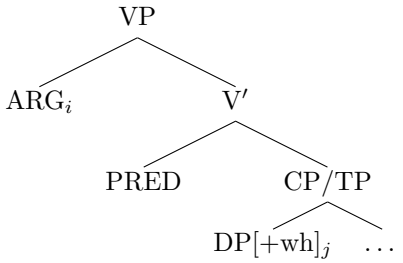
I will put forth some novel evidence supporting the view that control constituents map to properties rather than propositions. By transitivity, the evidence supports approaches in which obligatory control is resolved on the basis of the semantics of control predicates, rather than by interplay of syntactic conditions. The argument is based on a strong parallelism between PRO and wh-words and as such, it also supports a particular analysis of wh-fronting in which fronted wh-words map to logical lambda-operators (as opposed to indefinites or quantifiers). The parallelism will be formulated in terms of the PRO-wh generalization, which states that if a language has modal existential wh-constructions whose empty subject is an obligatorily controlled PRO (as in Russian or Spanish) and if the language allows for a structurally analogous modal existential wh-construction with an overt (non-controlled) subject, then the overt subject must be a wh-expression. Schematically, the relevant languages allow for the patterns in (2a) and (2b), but not for (2c) (where PRED is a control predicate, ARG is the controller, and DP is the embedded subject).

(2) a.

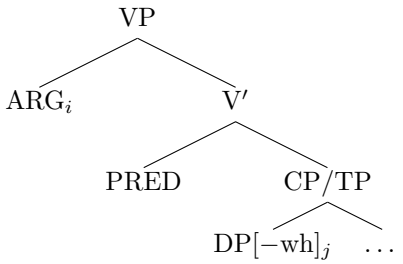


[1] Abbreviations used in glosses: 1 first person, 2 second person, 3 third person, acc accusative, cl clitic, dat dative, fut future, gen genitive, imprs impersonal, inf infinitive, instr instrumental, ms masculine, neg negation, nom nominative, nt neuter, pl plural, pst past, ptcp participle, sbj subjunctive, sg singular, refl reflexive (pronoun/morpheme). In syntactic notations, numerical subscripts track movement chains and letter subscripts track reference. In semantic notations, subscripts identify semantic type.

b.



c. *



The paper is organized as follows. Section 2 sets the theoretical stage by laying out the landscape of theories of obligatory control. The PRO-wh generalization will be introduced in section 3, along with the basic typology of modal existential wh-constructions. From the perspective of the construal of the subject, three types of modal existential wh-constructions can be distinguished: raising MECs, obligatory control MECs, and non-control MECs. In section 4, I will argue that the PRO-wh generalization can be captured in an elegant way if one adopts the conjunction of (i) the property theory of control constituents (Chierchia 1984, 1989), (ii) the logical lambda-operator theory of wh-words (Groenendijk and Stokhof 1984; Heim and Kratzer 1998), and (iii) a strict type-theoretic construal of control predicates, particularly a condition that control predicates always select for property-type arguments. In that case, the PRO-wh generalization falls out as a natural consequence of the success and failure of functional application at the syntax-semantics interface. In section 5 I provide a detailed analysis of modal existential wh-constructions that exhibit obligatory control and offer an explanation of the PRO-wh generalization. Section 6 concludes the paper.

2 The landscape of theories of obligatory control

In this section, I will first lay out the set of assumptions about control that I will take for granted and then introduce those that will be subject to testing. As far as I can tell, none of the adopted assumptions is intrinsically tied to any of the tested ones, so the argument to be made is not biased from this perspective.

Control is broadly defined as a particular way of determining the reference of phonologically empty subjects, notated as PRO, which typically (but not necessarily; cf. Landau 2004 and section 3 of this paper) appear in non-finite

clauses. I will assume the usual (though simplified) dichotomy (going back to Williams 1980) of obligatory control (OC), illustrated by (3a), in which the reference of PRO is grammatically fixed, and non-obligatory control (NOC), (3b), in which it is fixed contextually. The bracketed part is called the *control constituent.*

(3) a. Sue forced Dave$_i$ [PRO$_{i/*j}$ to remain in the cabin].
b. Mary$_i$ wonders [how PRO$_{i/j}$ to feed starving kids].

In OC, the primary focus of this paper, the reference of PRO is determined by one of the arguments of the control predicate (*force* in (3a)), so called *controller* (*Dave* in (3a)). The characteristic properties of PRO in prototypical obligatory control are (i) exhaustive (as opposed to partial) determination of the reference by the controller, (4a), (ii) sloppy (as opposed to strict) readings under ellipsis, (4b), and (iii) *de se* (as opposed to *de re*) readings, (4c).

(4) a. #Sue forced Dave$_i$ [PRO$_{i+}$ to gather at the square].
b. I$_i$ tried [PRO$_i$ to win] and so did John$_j$ (try [PRO$_{*i/j}$ to win]).
c. *Mary is watching a video, not recognizing herself in it and she is saying that brown eyes would fit that person [i.e. herself] better. Mary actually loves her own blue eyes.*
#Mary$_i$ wants [PRO$_i$ to have brown eyes].

Concerning the choice of the controller among the arguments (i.e. why *Dave* and not *Sue* determines the reference of PRO in (3a)), I will assume that it is, by default, the argument that is merged with the control predicate immediately after the control constituent is merged, i.e. the one that is the "closest" to PRO (Rosenbaum 1967; Bach 1979; Bach and Partee 1980; Larson 1991; Hornstein 1999).[2] This is by no means the only possible approach to controller choice and, as suggested by Landau (2000, 2003), perhaps not even the most generally accepted one. Yet, it will be adequate for the limited set of data discussed here.

Having set the basic working assumptions let me now introduce some parameters along which theories of control vary and which will be subject to the test imposed by the newly observed PRO-wh generalization. The dispute most relevant to the present purposes concerns the semantic type of the control constituent. Closely related is then the issue of OC PRO, in particular its semantic type and nature. There are two basic approaches to this issue. The propositional approach assumes that control constituents are semantically propositions, i.e. expressions of type t (or $\langle s,t\rangle$ in an intensional system), and PRO is a variable of type e, i.e. a type of empty pronoun. The property approach assumes that control constituents are semantically properties, i.e. expressions of type $\langle e,t\rangle$ (or $\langle s,et\rangle/\langle e,st\rangle$; cf. Stephenson 2010), and PRO is either non-existent or reduces to a logical lambda-operator (see section 4). Let me give a simple example for clarity. On the proposition approach, the

[2] This "minimality-based" account of controller choice will converge here with a theta-role-based account (Jackendoff 1972; Chierchia 1984), since I will also assume a strict locality condition (or in fact one-to-one head-spec mapping) on so called theta role assignment.

infinitive *to remain in the cabin* in (3a) denotes a proposition, which, applied to some situation, is either true or false, depending on the value eventually assigned to the PRO variable. On the property approach, the infinitive characterizes a set of individuals which remain in the cabin (in some situation).

Importantly, this dispute touches upon a more general issue in the theory of control, namely whether the control relation is primarily syntactic or semantic. The property theory quite naturally couples with semantic approaches and the proposition theory with syntactic approaches. Let us see why. Remember that the goal of a theory of control is to explain why the empty subject in a control constituent is obligatorily coreferent with some argument of the control predicate.[3] For a theory in which control constituents denote properties it is very natural to assume that the coreference relation is a consequence of the semantics of the control predicate. This is because both the denotation of the controller and the denotation of the subject of the control constituent are perfectly accessible to the predicate: the former directly—by being one of the arguments, and the latter indirectly—by being lambda-bound in the representation of its other argument (the control constituent). In effect, the control predicate introduces a predicative relation between the two. A simplified and schematic lexical entry of a control predicate PRED under a semantic theory of control is in (5), where P corresponds to the control constituent, x to the controller, and pred' to the denotation of the control predicate.[4] (6) provides a simplified derivation of the truth-conditions of (3a), using this control predicate. Notice that the argument of *to remain in the cabin* is Dave (d).

(5) $[\![\text{PRED}_{\text{property}}]\!] = \lambda P \lambda x[\text{pred}'(P(x))(x)]$

(6) [Sue forced Dave to remain in the cabin]
$= [\![\text{force}_{\text{property}}]\!]([\![\text{to remain in the cabin}]\!])([\![\text{Dave}]\!])([\![\text{Sue}]\!])$
$= \lambda P \lambda x \lambda y[\text{force}'(P(x))(x)(y)](\lambda z[\text{remain.in.the.cabin}'(z)])(\text{d})(\text{s})$
$= \text{force}'(\text{remain.in.the.cabin}'(\text{d}))(\text{d})(\text{s})$

Now, in the proposition approach, there is no chance for the control predicate to resolve the controller-PRO coreference simply by predication.[5] The reason is that the variable introduced by PRO, being "buried" inside of the proposition, is inaccessible for compositional manipulation from the control predicate. A lexical entry for a control predicate under the proposition approach therefore looks like in (7), where p corresponds to the control constituent, x to the controller, and y to PRO. The notation $p[y]$ should be read as a proposition containing a free variable y (i.e. y is not an argument of p, as opposed to (5), where x is an argument of P). Again, (8) provides the truth-conditions of (3a),

[3] Note that I use the term *coreference* in a non-technical sense, encompassing (accidental) coreference and binding.

[4] For the first full-fledged analysis of control predicates along these lines, see Chierchia (1984). See also section 5 of the present paper.

[5] Wurmbrand (2002) is of a different opinion. She assumes a proposition analysis of (a subclass of) OC and at the same time a semantic resolution of the controller-PRO coreference. Unfortunately, she does not clarify what the "inherent semantic properties of the selecting (OC) verbs," allegedly responsible for this coreference, should be.

using the proposition-selecting control predicate. Notice that the argument of *to remain in the cabin* is a free variable z, and not Dave (d), as required. The truth-conditions in (8) are therefore not adequate.

(7) $[\![\text{PRED}_{\text{proposition}}]\!] = \lambda p \lambda x[\text{pred}'(p[y])(x)]$

(8) [[Sue forced Dave to remain in the cabin]]
$= [\![\text{force}_{\text{proposition}}]\!]([\![\text{to remain in the cabin}]\!])([\![\text{Dave}]\!])([\![\text{Sue}]\!])$
$= \lambda p \lambda x \lambda y[\text{force}'(p)(x)(y)](\text{remain.in.the.cabin}'(z)])(\text{d})(\text{s})$
$= \text{force}'(\text{remain.in.the.cabin}'(z))(\text{d})(\text{s})$

It follows that some other module than semantics must be responsible for the obligatory coreference between the controller and PRO in the proposition approaches. There is wide agreement that this module is syntax (though see Farkas 1988). What submodule of syntax this should be is subject to continuing controversy. The existing accounts are based on (i) a designated control module of the grammar, where PRO has special properties ([+pronominal, +anaphor]) and its reference is determined by special rules (e.g. Chomsky 1980, 1981), (ii) binding, where PRO is considered a subtype of a reflexive anaphor (e.g. Koster 1984, 1987), (iii) movement, where PRO is treated as a trace after A-movement (e.g. Hornstein 1999, 2001) and (iv) agreement, where PRO has to agree with a functional head associated with the control predicate, such that the functional head in turn agrees with the controller (e.g. Landau 2000, 2004). These submodules, in particular binding, movement, and agreement, naturally lend themselves to locality conditions and hence contain a seed of accounting for the relatively restricted occurrence of the phenomenon of obligatory control. (Notice that no reference to syntactic locality is needed in the semantic approach, where the relevant restriction is captured by the general principles of semantic compositionality.)

The last parameter to be considered is syntactic and carves out three subclasses within the class of property theories. These correspond to three ways of arriving at the property-type semantics of the control constituent. In the first case, PRO is an operator that undergoes A-bar operator movement, much like relative clause operators (e.g. Aoun and Clark 1985; Clark 1990). This movement then maps onto lambda-binding of the trace and the control constituent—presumably a CP—maps onto a property. The second possibility is that PRO undergoes (formally driven) A-movement, as often assumed in proposition theories, and still, it maps to a lambda operator. In the third case, which is entertained most often within the class of property theories, PRO does not exist at all (e.g. Bresnan 1978; Chierchia 1984; Culicover and Wilkins 1986; Jones 1991; Bošković 1996; Babby 1998). The control constituent is a

subject-less VP, mapping to a property in the semantics.[6] These three types of property approaches to control are schematically illustrated below:

(9) a. PRED $[_{\text{CP}}$ PRO-OP$_i$ ... $[_{\text{vP}}$ t$_i$ $[_{\text{VP}}$ ...]]]
b. PRED $[_{\text{TP}}$ PRO$_i$ ... $[_{\text{vP}}$ t$_i$ $[_{\text{VP}}$ ...]]]
c. PRED $[_{\text{VP}}$ ...]

In summary, I considered three parameters that have shaped the landscape of theories of obligatory control. They are (i) the semantic type of the control constituent (proposition vs. property), (ii) the module in which control is established (syntax vs. semantics), and (iii) the very existence of PRO (yes or no). We will see that the PRO-wh generalization most clearly relates to the first parameter and provides an argument in favor of the property theory of control constituents. To the extent that the property analysis entails something about the second parameter, the PRO-wh generalization also supports the semantic resolution of control. With respect to the third parameter, the generalization provides tentative support for the second option, i.e. the idea that PRO exists and undergoes A-movement which might be related to its formal licensing and yet, maps to lambda-abstraction in semantics.

3 Types of MECs and the PRO-wh generalization

Modal existential wh-constructions are primarily infinitival and secondarily subjunctive.[7] Their subject is mostly empty. Consider an example from Spanish:

(10) Tengo con quién *e* hablar.
have:1sg with who speak:inf
'There is somebody I can speak with.'

What is the nature of the MEC subject (marked as *e* in (10))? A cross-linguistic investigation reveals that there is no universal constraint on MEC subjects; the whole range of subject types are compatible with MECs—a trace after raising, obligatorily or non-obligatorily controlled PRO, *pro*, as well as overt Case-marked subjects. Most languages can make use of more than one of these strategies, depending on various factors, such as the mood of the embedded verb or the type of the embedding predicate. I will first illustrate the existing

[6] A similar division can in principle be applied to the proposition approaches, though it is not really attested. In virtually all proposition approaches, the control constituent is a CP or a TP and the movement of PRO is not motivated by lambda-abstraction (though see Clark 1990 for a notable exception), but rather by some formal requirements, relating to government, Case-checking, or agreement.

[7] The following implicational universal holds: If a language has the infinitive mood in its grammar, it uses it to form MECs. Languages with no infinitive mood typically use the subjunctive (or its functional counterpart) instead. No comparable implication holds for the subjunctive mood, i.e. in the class of languages which possess both the infinitive and the subjunctive, there are some which use the subjunctive in MECs productively (e.g. Czech or Hungarian), while others do not (e.g. Polish or Italian).

types (section 3.1), after which I will zoom into the properties of one of the types and introduce the PRO-wh generalization (section 3.2).

3.1 Types of MECs with respect to their subject

In what follows I offer a typology of MECs based on how their subject can be realized and interpreted. I start with delimiting the class of *control MECs,* i.e. MECs whose empty subject is obligatorily controlled and which will be in the center of our attention in the remainder of this paper. The rest of the typological space is taken up by *raising MECs,* whose subjects are related to the matrix TP-area by A-movement (or in-situ agreement), and finally *non-control MECs,* which exhibit no clear restrictions on the realization and/or interpretation of their subjects.

Control MECs are characterized by three properties. First, they only seem to exist in languages that have the infinitive mood in their grammar (let us call these *inf*-languages), which accounts for their absence in languages like Greek. Interestingly, however, the class of control MECs includes non-infinitival MECs, specifically in Czech and Hungarian, which exhibit subjunctive control MECs (alongside infinitival MECs). Second, control MECs are always embedded under what I call stative existential verbs, in particular 'be' or 'have'. In this respect, they differ from dynamic MEC-embedding verbs such as 'find', 'buy' or 'bring', whose arguments do not obligatorily control the MEC subject. Third, the verb which embeds control MECs must be able to Theta-license its own argument—the controller. Verbs that do not do so effectively behave as raising verbs. Fourth and finally, the verb must be able to Case-license the controller. An example of where this is not possible is given in (11) for Czech.

(11) {* Petr / * Petrovi / ∅} není s kým mluvit.
Petr:nom / Petr:dat / neg.is with whom speak:inf
'There is nobody who one could speak with.'

Even though it is in principle possible that a control relation is established between an implicit/covert argument of 'be' and an embedded PRO in (11), this is very difficult to prove or falsify. Since nothing hinges on these particular cases, I decide to exclude them from the class of control MECs for convenience.

Putting these properties and conditions together and formulating them in terms of a biconditional (which, to the best of my knowledge, holds), we can define control MECs as follows:

(12) An MEC is a *control MEC* iff it is realized in an *inf*-language and it is embedded under a stative existential verb which can Theta- and Case-license its argument.

Notice that the definition in (12) does not specify that the subject of a control MEC is obligatorily controlled. This is convenient, since there are indeed cases

where it is not. I will turn to these cases in subsection 3.2. Now, let me illustrate the properties of control MECs one by one.

First of all, if phonologically empty, the subject of control MECs is obligatorily controlled. I illustrate this below on a single example from three *inf*-languages—Spanish (13a), Portuguese (13b), and Russian (13c). In all these languages, the example sounds completely natural in a situation where a teacher is handing out exam sheets and is checking whether a student has something (e.g. a pen) that she (that student) can write with. On the other hand, it is impossible to use in a situation where a teacher needs to write something himself and is asking a student whether she could lend him something to write with. In the first situation, the MEC's subject is controlled, in the second situation it is not.[8]

(13) a. Tienes con qué escribir?
have:2sg with what write:inf
b. Tens com o que escrever?
have:2sg with the what write:inf
c. Tebe est' čem pisat'?
you:dat be what:instr write:inf
'Do you have anything that you/*I/*one can write with?'

The following examples from Spanish further confirm that the empty subject of control MECs qualifies as an OC PRO: it is exhaustively controlled (no partial control is possible), (14a), and ellipsis yields sloppy readings only, (14b).[9]

(14) a. *Pablo$_i$ aún no tiene donde PRO$_{i+}$ reunirse.
Pablo still neg has where gather:inf
'Pablo$_i$ still doesn't have a place where they$_{i+}$ could gather.'
b. Juan$_i$ no tiene a quién PRO$_i$ pedir consejo, y sus amigos$_j$
J. neg has a who ask:inf advice and his friends
tampoco *(have who PRO$_{*i/j}$ ask for advice).*
neither
'Juan has nobody to ask for advice and neither do his friends (have anybody that Juan/they could ask for advice).'

Let us now turn to those *inf*-languages which also exhibit subjunctive MECs, in particular Hungarian (15a) and Czech (15b). In these languages, the embedded subject of a subjunctive control MEC must be coreferent with

[8] Notably, an analogous infinitival relative clause in English can be used in both situations, showing that the subject of (English) relative clauses is not obligatorily controlled:

(i) a. I forgot my things at home – do you have anything [for me] to write with?
b. You're about to start writing the test – do you have anything [for yourself] to write with?

This difference in the behavior of MECs and relative clauses bears on the precise delimitation of the PRO-wh generalization, as discussed in section 3.2.

[9] Testing the availability of *de se* vs. *de re* readings is not easy due to the fact that the matrix subject is not an attitude holder.

the matrix subject, despite the fact that the embedded structure is finite and there should therefore be no formal obstacle for hosting referentially independent subjects such as *pro*.

(15) a. Péter$_i$ van kit $\{e_{i/*j}$ /* Anna$\}$ küldjön a
P. be:imprs who:acc A. send:sbj.3sg the
postára.
post.office.to
'Peter has somebody who he/Anna can send to the post office.

b. Karel$_i$ neměl koho by $\{e_{i/*j}$ /* Petr$\}$ pozval na
K. neg:had:3sg who:acc sbj.3 P. invite for
večeři.
dinner
'Karel had nobody who he/Petr could invite for dinner.'

I will assume that (15) represent examples of genuine obligatory control into finite complements and hence use the standard notation PRO for the empty category above. This stance is further supported by the Czech examples in (16), which are analogous to (14) above: (16a) shows that partial control is impossible and (16b) shows that only sloppy readings are present under ellipsis.

(16) a. *Karel$_i$ nemá kde by PRO$_{i+}$ se shromáždil(*i).
K. neg:has where sbj.3 refl gather:pst.ptcp.sg(pl)
'Karel has no place where he (and others) could gather.'

b. Karel$_i$ nemá koho by se zeptal na radu a
K. neg:has who:acc sbj.3 refl ask:pst.ptcp for advice and
Petr$_j$ bohužel taky ne
P. unfortunately also not
(have who PRO$_{*i/j}$ ask for advice).

'Karel has nobody who he could ask for advice and unfortunately, Petr doesn't either (have anybody who Petr could ask for advice).'

OC into finite structures is not unattested, though typically limited to languages which lack the infinitive mood (see Landau 2004 and the numerous references cited therein). Admittedly, the presently observed cross-linguistic pattern is somewhat unexpected, since languages that normally do not allow OC into finite structures (Czech and Hungarian) do so in MECs, while languages that normally exhibit OC into finite structures (e.g. Bulgarian and Greek) do not do so in MECs.[10] The *non-control* nature of Greek finite MECs

[10] There might be some speaker variation. While Roumyana Pancheva (p.c.) told me that there is no obligatory control in Bulgarian MECs, Kostadin Cholakov (p.c.) finds (i) ungrammatical:

(i) *Njamam kakvo Elena da nosi na bala.
neg.have:1sg what Elena sbj wear at ball.det
'I don't have anything that Elena could wear at the ball.'

is demonstrated in (17): the matrix first person subject is clearly disjoint from the embedded third person subject, which can even be lexically realized (*i Vassiliki*).

(17) Den exo ti na foresi i Vassiliki sti jiorti
neg have:1sg what sbj wear:3sg the Vassiliki at.the name.day
tis.
her:gen
'I don't have anything that Vassiliki could wear on her name-day.'

This cross-linguistic paradox will have to stay unresolved here. However, notice that it provides a tentative argument in favor of treating control (in MECs) as a semantic phenomenon, in accordance with the presently made argument, rather than a phenomenon restricted by syntax. In some sense, these cases of control into finite constituents are akin to Chierchia's (1989) cases of "control" of overt pronouns by attitude-holders. This means that they could be reanalyzed as containing a *pro*, which is obligatorily bound by a lambda-operator (effectively an OC PRO, cf. section 4) in the left periphery of the MEC. (See also footnote 18.)

Other members of the non-control class are those MECs which are selected by predicates other than 'be' or 'have', irrespective of the grammatical mood of the embedded predicate (infinitive in (18a), (18b) and subjunctive in (18c)). Notice that the embedded PRO can be coreferent with one of the matrix arguments, as in (18a), but need not be, as in (18b), (18c). The examples below are from Portuguese, Russian, and Czech, respectively.[11]

(18) a. Dei-lhe$_i$ o que PRO$_i$ fazer.
gave:1sg-to.him:cl o what do:inf
'I give him something (work) that he can do.'
b. Ja$_i$ našel čem {PRO$_{i/j}$ / tebe$_k$} pisat'.
I found what:instr you:dat write:inf
'I found something that I/one/you can write with.'
c. Karel pořád ještě hledá kde by se (jeho kolegové)
K. still look.for where sbj.3 refl (his colleagues)
sešli.
meet:pst.ptcp.pl

[11] An anonymous reviewer notes that in the Czech example (i) in which the matrix verb is *poslal* 'sent', partial control is possible: note that the matrix subject is 1st person singular (made visible by the auxiliary *jsem*) whereas the embedded one is 1st person plural (made visible by the agreeing subjunctive marker *bychom*).

(i) Poslal jsem ti, kde bychom se sešli, už včera.
sent:pst.ptcp aux.pst.1sg you:dat where sbj.1pl already yesterday
'Already yesterday I sent you a place where we could gather.'

This is in fact expected if verbs like 'send' embed non-control MECs and if partial control is a subcase of non-obligatory control (cf. Landau 2000).

'Karel is still looking for a place where they/his colleagues could meet.'

Having shown that control MECs are conditioned by the language in which they appear and the predicate under which they are embedded, I now move on to the last property mentioned above, namely that the verb that embeds a control MEC Theta-licenses its own argument—what surfaces as the matrix subject and functions as the controller. This property lies at the very heart of the idea that control MECs involve obligatory control—if there is no controller, there can be no control relation. The examples below (Spanish, Russian, and Czech respectively) show just that: the matrix subject related to control MECs cannot be a non-referential one.

(19) a. *No tuvo/hubo cuando llover.
neg had:3sg/imprs when rain:inf
b. *Est' kogda idti dožd' / doždju.
be when go:inf rain:nom / rain:dat
c. *Nemělo kdy by pršelo.
neg.had when sbj.3 here rain:pst.ptcp
'There was no time when it could rain.'

Yet, not all MEC-embedding verbs behave like that. As shown below for Czech (20a) and Slovenian (20b) infinitival MECs, some verbs introduce no thematic subjects/controllers and therefore are capable of embedding predicates with non-referential subjects. This, in conjunction with the fact that the subject agrees in ϕ-features with the matrix verb and gets Case-licensed (assigned nominative) by the functional structure it introduces (see also (21)), shows clearly that there is a raising rather than control relation between the matrix and the embedded subject. I call this type of MECs *raising MECs,* accordingly.[12]

(20) a. Nemělo tady kdy pršet.
neg.had:3sg.nt here when rain:inf
b. Ni imelo kdaj deževati.
neg had:3sg.nt when rain:inf
'There was no time when it could rain here.'

(21) Honzík si neměl kde hrát.
H.:3sg.ms refl neg.had:3sg.ms where play:inf
'Honzík had nowhere to play.'

As I argued in Šimík (2011: chapter 5), raising MECs do not only exhibit A-movement of the embedded into the matrix clause, they also display a whole range of other transparency phenomena. This can be explained under the as-

[12] The reflexive clitic *si* in (21) belongs to the embedded verb *hrát (si)* 'play (for fun)' rather than to the matrix verb. It is realized in the matrix clause only due to the restructuring nature of the matrix verb *neměl* 'neg.had'. Thus, there is no lexical difference between between the matrix verb in (21) and (20a).

sumption that MEC-embedding verbs in some languages can be restructuring verbs in the sense of Wurmbrand (2001), i.e. they are capable of selecting a structurally impoverished embedded clause, which can be as small as a vP.

This concludes the brief excursus into a typology of MECs based on the realization and interpretation of the embedded subject. I argued that there is a well-defined class of MECs—control MECs, whose empty subject is an obligatorily controlled PRO. Besides that, there are two classes of MECs—non-control MECs and raising MECs, whose subjects are other types of DPs, e.g. NOC PRO, *pro,* lexical DPs, and sometimes expletives. The difference between non-control MECs and raising MECs is that the verb that they are embedded by introduces one or more other arguments (which can but need not corefer with the embedded subject) in the former case, while no argument is introduced in the latter case—giving way for the embedder of raising MECs to behave as a raising predicate.

In the next section I discuss control MECs in more detail, focusing on the marked case, in which control MECs contain non-OC PRO subjects.

3.2 The PRO-wh generalization

The core empirical contribution of this paper is embodied in the generalization (22).

(22) **The PRO-wh generalization**
Whenever a control MEC has a referentially independent subject, the subject is a wh-expression.

In other words, it is possible to disrupt the obligatory control relation between the matrix and the embedded subject, i.e. to "remove" the OC PRO, but only if the embedded subject takes a wh-form. This gives rise to two types of control MECs: *PRO-subject (control) MECs* and *wh-subject (control) MECs.*

The PRO-wh generalization cuts across a number of typologically quite different languages as well as the two verbal moods that control MECs can make use of. Perhaps the most straightforward illustrations of (22) come from Czech and Hungarian subjunctive MECs, where neat minimal pairs of PRO-subject MECs with wh-subject MECs can be formed. This is because in these languages both OC PRO and nominative wh-subjects can be licensed by the subjunctive mood in MECs. The examples from Czech in (23) show that despite the acceptability of a subject disjoint from the matrix subject, (23b), this disjointness obtains if and only if the subject is a wh-word. Non-wh-subjects, whether they are referential or quantificational, are ungrammatical, (23c).[13]

[13] The pattern in (23) is strongly supported by corpus findings. The Czech National Corpus – SYN was used. The subcorpus SYN contains 1.3 billion words (tokens) of written synchronic Czech, mostly from newspapers and magazines. The search was performed on March 12, 2012. Three conditions were tested, corresponding to the types in (23), the factors being the value of the matrix and embedded subject: (i) a congruent condition (e.g. 1sg+1sg), corresponding to (23a), yielded 333 hits, (ii) an

(23) a. **Karel**$_i$ neměl koho by **PRO**$_{i/*j}$ pozval na večeři.
K. neg:had who:acc sbj.3 invite to dinner
'Karel had nobody who he could invite for dinner.'
b. **Karel**$_i$ neměl **kdo**$_j$ by ho pozval na večeři.
K. neg:had who:nom sbj.3 him invite:pst.ptcp to dinner
'Karel had nobody who could invite him for dinner.'
c. *?**Karel**$_i$ neměl koho by { **Petr**$_j$ / **aspoň někdo z**
K. neg:had who:acc sbj.3 Petr / at.least someone from
komise} pozval na večeři.
committee invite:pst.ptcp to dinner
'Karel had nobody who Petr / at least someone from the committee could invite for dinner.'

The Czech pattern above is replicated for Hungarian subjunctive control MECs (data from Lipták 2003 and Anikó Lipták, p.c.).

(24) a. **Péter**$_i$ van kit **PRO**$_{i/*j}$ küldjön a
P.:nom be:imprs who:acc send:sbj.3sg the
postára.
post.office.to
'Peter has somebody who he can send to the post office.'
b. **Nekem**$_i$ van **ki**$_j$ elmenjen a postára.
I:dat be:imprs who:nom go:sbj.3sg the post.office.to
'I have somebody who can go to the post office.'
c. *?**Péternek**$_i$ van { **Anna**$_j$ / **mindenki**} kit
P.:dat be:imprs A. / everybody who:acc
küldjön a postára.
send:sbj.3sg the post.office.to
'Peter has somebody who Anna / everybody can send to the post office.'

An interesting situation obtains in languages with infinitival control MECs, such as Spanish, Portuguese, or Italian. The illustrations in (25) are from Spanish. These languages allow for an exceptional use of the subjunctive, but

incongruent condition with a wh-subject (1sg+wh-subject), corresponding to (23b), yielded 30 hits, and (iii) an incongruent condition without a wh-subject (1sg+2sg), corresponding to (23c), yielded 1 hit. (I have no explanation for the single exception though I take the effect to be robust enough.) The relatively low overall number of occurrences is presumably caused by the competing and often truth-conditionally identical, infinitival MECs which are much more frequent than the corresponding subjunctive MECs in Czech. The queries took the form "matrix verb wh-word subjunctive morpheme" (e.g. *nemám koho bych* 'neg.have:1sg who:acc sbj:1sg'). Only negated present tense matrix verbs were used, but all possible ϕ-feature values of the matrix subject were tested and were controlled for by the agreement on the matrix verb (*nemám* 'neg.have.1sg', *nemáš* 'neg.have.2sg', etc.). Likewise, all possible ϕ-feature values of the embedded subject were tested and were controlled by the agreement on the subjunctive morphme (*bych* 'sbj.1sg', *bys* 'sbj.2sg', etc.). The single case of syncretism (*by* 'sbj.3sg' or 'sbj.3pl') was handled manually. The wh-words in the congruent conditions were *co* 'what.acc' and *koho* 'who.acc', the wh-words in the incongruent condition with wh-subjects were *kdo* 'who.nom' and *co* 'what.nom'.

just in case this finite mood is introduced to license the nominative on wh-subjects, (25b). Again, non-wh-subjects are ungrammatical, (25c).

(25) a. No tien**es**$_i$ a quién {**PRO**$_{i/*j}$ multar /* multes}.
neg have:2sg a who fine:inf / fine:sbj.2sg
'You don't have anybody who you could fine.'
b. No tien**es**$_i$ **quién**$_j$ te { multe /* multar}.
neg have:2sg who you fine:sbj.3sg / fine:inf
'You don't have anybody who could fine you.'
c. *No tien**es**$_i$ a quién { **Juan**$_j$ / **un inspector de Hacienda**$_j$}
neg have:2sg a who J. / an inspector of tax.office
multe.
fine:sbj.3sg
'You don't have anybody who Juan / a tax officer could fine.'

An interesting case is Hebrew, which, having no subjunctive mood in its grammar, uses the future tense to license wh-subjects. Again, the future tense can be used if and only if it steps in to license wh-subjects.

(26) a. Ein **li**$_i$ im mi { **PRO**$_{i/*j}$ ledaber /* še-adaber}.
neg.is to.me with who speak:inf / rel-speak:fut:1sg
'I have nobody who I can speak with.'
b. Ein **li**$_i$ **mi**$_j$ { še-yaazor /* laazor} li.
neg.is to.me who rel-help:fut:3sg / help:inf to.me
'I have nobody who could help me.'
c. *Ein **li**$_i$ im mi še { **ha-ben šeli**$_j$ / **lefaxot xelek**
neg.is to.me with who rel the-son my / at.least part
me-ha-lEkoxot šeli} { yedaber / yedabru}.
of-the-clients my speak:fut:3sg / speak:fut:3pl
'I have nobody who my son / at least some of my clients could speak with.'

An anonymous reviewer points out that not only the (c) examples themselves but also their English translations do not sound particularly felicitous, which opens up the possibility that the scope of the PRO-wh generalization applies not only to MECs but also to truth-conditionally similar relative clauses. Yet, on a closer inspection, there is a qualitative difference between the diminished acceptability of the (c) examples above and their English translations: while the former are unacceptable for syntactic and/or semantic reasons, the latter are unacceptable for pragmatic reasons.

Let us first have a look at the case of English relative clauses. According to the reviewer's intuition, the translation of (23c) (let us take the case with the referential subject, for illustration) is infelicitous in English because it is difficult to imagine what relevant relationship (expressed by 'have') there could be between Karel and the individuals who are characterized by being potential receivers of Petr's dinner invitation. This implies that if we make such a relationship more salient, the English translations of the (c) examples

(leaving (26) aside) improve in acceptability. According to my informant, this is indeed the case (see also footnote 8):[14]

(27) a. Among his$_i$ friends, Karel$_i$ has nobody who Petr could invite to dinner [so there's no way for Karel to infiltrate in Petr's company].
b. Among his$_i$ student assistants, Peter$_i$ has somebody who Anna can send to the post office [so Peter can help Anna].
c. All your employees keep their finances in good order; you have nobody who Juan could fine [so you have no reason to be worried about Juan's inspection].

Two questions remain to be answered. First, does contextual priming of the above kind improve the acceptability of MECs ruled out under the PRO-wh generalization? As the data below show, the answer is in the negative:

(28) *?Mezi svými přáteli Karel neměl koho by { Petr / among self.poss friends K. neg:had who:acc sbj.3 P. /
aspoň někdo z komise} pozval na večeři.
at.least someone from committee invite:pst.ptcp to dinner
'Among his friends, Karel had nobody who Petr / at least someone from the committee could invite to dinner.' ≈ (23c)

(29) *?A diákjai közül Péternek van { Anna / mindenki}
the student:poss3sg.pl among P.:dat is A. / everybody
kit küldjön a postára.
who:acc send:sbj.3sg the post.office.to
'Among his students, Peter has somebody who Anna / everybody can send to the post office.' ≈ (24c)

(30) *Todos tus empleados tienen su declaración de la renta al
all your employees have their declaration of the income to.the
día; no tienes a quién Juan / un inspector de Hacienda
day neg have:2sg a who J. / an inspector of tax.office
multe.
fine:sbj.3sg
'All your employees keep their finances in good order; you have nobody who Juan / a tax officer could fine.' ≈ (25c)

The second question is whether corresponding relative clauses in the respective languages behave on a par with English relatives or on a par with MECs in those languages. The answer is that they are like English relatives: in ap-

[14] The same informant has a slight dispreference against using the verb *have* in these sentences and suggests that they should be replaced by *know of* or *can think of* (i.e. predicates which due to their epistemic nature do not really capture the truth-conditions contributed by 'have' in MECs, which involve circumstantial modality, cf. Pancheva-Izvorski 2000 and Šimík 2011). This might suggest that, whenever possible, *have* should be replaced by the more neutral *be* in the translations of MECs. That, however, would force one to express the matrix subject in some indirect way, e.g. by a *for*-phrase, leading to potential further unwanted inferences.

propriate contexts they allow for non-wh/operator subjects disjoint from the matrix subjects.

(31) (Mezi svými přáteli) Karel neměl nikoho, koho by
among self.poss friends K. neg:had anybody:nci who:acc sbj.3
{ Petr / aspoň někdo z komise} mohl pozvat
P. at.least somebody from committee could invite:inf to
na večeři.
dinner
'Among his friends, Karel had nobody who Petr / at least someone from the committee could invite to dinner.' ≈ (27a)

(32) (A diákjai közül) Péternek nincs egy sem, akit {
the student.poss3sg.pl among P.:dat neg.is one neg who:rel
Anna / mindenki} el tudna küldeni a postára.
A. / everybody pv know:cond.3sg send:inf the post.office.to
'(Among his students) Peter doesn't have a single one/person who Anna / everybody could send to the post office.' ≈ (27b)

(33) (Todos tus empleados tienen su declaración de la renta
all your employees have their declaration of the income
al día;) no tienes a nadie a quién Juan / un inspector
to.the day neg have:2sg a anbody.nci a who J. / an inspector
de Hacienda pueda multar.
of tax.office could fine:inf
'All your employees keep their finances in good order; you have nobody who Juan / a tax officer could fine.' ≈ (27c)

There are two conclusions to be drawn from the evidence just presented. First, the PRO-wh generalization targets MECs specifically; it does not reliably extend to truth-conditionally analogous relative clauses.[15] Second, what underlies the generalization is arguably a grammatical rather than a pragmatic restriction. This will be reflected in the account offered in the next section.

4 Capturing the PRO-wh generalization: the core idea

The central question posed by the PRO-wh generalization is: What makes OC PRO and wh-subjects behave on a par and differently than all other types of subjects? The answer that I put forth in this paper is simple: Both

[15] The generalization arguably does not apply to English purpose clauses either. As I argued in Šimík (2011: chapter 4), purpose clauses in the narrow sense, i.e. ones containing an infinitival predicate and a gap bound by an empty operator, e.g. *Mary brought it* $[_{PC}$ *OP*$_1$ *to please her parents with* e_1] (see Faraci 1974 and Jones 1991 for a taxonomy of purpose clauses) are the closest kin of modal existential wh-constructions. They share a number of important properties, including their distribution and the modal force and flavor. Yet, as shown convincingly by Whelpton (2002), subjects in this type of purpose clauses are not obligatorily controlled. Hence, we witness grammatical examples like *Harry bought a steak for Sam to cook for dinner* (from Whelpton 2002:170).

OC PRO and wh-words map to logical lambda-operators (in their derived positions)—a type of mapping generally assumed to be excluded for other types of DPs, including referential (RE) and quantificational expressions (QE), but also non-obligatory controlled PRO and other types of pronominal variables. The LF-semantics mapping proposed here is in (34). The first column contains a schematic LF syntax of some embedded (clausal) category XP, containing/being introduced by a particular DP, the second one a simplified logical formula that XP maps to, and the last one the domain of objects that the formula is a member of.

(34)

a.	$[\![[_{\text{XP}}$ wh-DP $\dots]]\!]$	$= \lambda x[P(x)]$	$\in D_{\langle e,t\rangle}$
b.	$[\![[_{\text{XP}}$ OC PRO $\dots]]\!]$	$= \lambda x[P(x)]$	$\in D_{\langle e,t\rangle}$
c.	$[\![[_{\text{XP}}$ QE $\dots]]\!]$	$= \Omega x[Q(x) * P(x)]$	$\in D_t$
d.	$[\![[_{\text{XP}} \dots$ RE $\dots]]\!]$	$= P(c)$	$\in D_t$
e.	$[\![[_{\text{XP}} \dots$ NOC PRO/pro $\dots$ $]]\!]$	$= P(x)$	$\in D_t$

The idea is that wh-words (34a) and OC PRO (34b) undergo operator movement to the edge of some XP, serving to lambda abstract over a variable (their trace). They literally map to a lambda-operator and hence have no semantic type.[16] The variable they bind is restricted by the descriptive content of the wh-word in the first case and unrestricted in the case of OC PRO.[17] The resulting formula is of a functional type—denoting a function from individuals to truth-values/propositions. Quantificational expressions (34c), while also undergoing operator movement (quantifier raising), do not leave their syntactic sister intact, but rather take it as their argument, yielding a truth-value/proposition. They are of type $\langle et, t\rangle$, as standardly assumed. (Replace Ω by any quantificational determiner and $*$ by the particular relation between propositions that it entails; e.g., if Ω is *every* ($\forall$), then $*$ is $\rightarrow$; Q is the restriction of the quantifier and P is its scope.) Referential expressions (34d) and various pronominals (34e) are entity-type expressions and thus can be interpreted in situ. The only difference between the two is that REs denote constants (c), while pronominals denote (free) variables (x). In both cases, the whole XP in which they appear is of a truth-value/propositional type.[18]

It follows from (34) that wh-clauses (before the application of further operators, e.g. the iota-operator in free relative clauses) and OC constituents are fundamentally different from other embedded clauses. The difference is formulated in the standard property vs. proposition dichotomy.

[16] In technical terms they are *syncategorematic* (they have no "category" = semantic type). The meaning of a node which dominates lambda does not get computed by function application but rather by the application of a special rule called lambda or predicate abstraction. See Heim and Kratzer (1998) for details.

[17] The precise manner in which the wh-word contributes the variable restriction is immaterial here. It could either be done via a run-of-the-mill presupposition or by construing their trace as definite descriptions (Rullmann and Beck 1998; Sauerland 1998; Johnson 2012).

[18] Some complements of attitude predicates arguably constitute an exception to (34e), as they denote properties rather than propositions (see Chierchia 1989). In that case, the pronominal functions as a sort of resumptive pronoun, being lambda-bound at the edge of the complement.

Now, suppose that control predicates always select for property-type expressions, as proposed by Chierchia (1984) (but already assumed in Montague 1973, Bach 1979, and others). Then, in conjunction with (34), we have a handle for understanding why OC PRO and wh-subjects are the only acceptable subjects in control MECs (see section 3.1). Other types of subjects simply fail to deliver the type-theoretical semantics appropriate for the MEC-selecting predicate.

Before I turn to a detailed analysis of control MECs, it should be noted that (34a), i.e. the particular syntax-semantics mapping of wh-clauses, is by no means the only possible one. This logical-lambda construal of wh-expressions was utilized by Groenendijk and Stokhof (1984) in their dissertation on questions and also by Heim and Kratzer (1998) in their formal semantics textbook. Perhaps the strongest argument supporting this position comes from the use of wh-expressions as relative operators in headed relative clauses, where virtually no other analysis is well imaginable. Yet, other proposals abound for other uses of wh-expressions, particularly wh-questions and free relative clauses. The analysis that is closest in spirit to the logical-lambda analysis is the one of Caponigro (2003, 2004), who assigns wh-words the type of type-preserving functions. Also under his approach, wh-constituents end up denoting properties and to the extent that it is empirically equivalent, it could also be used here.[19] There are three other widely used approaches to the semantics of wh-expressions. One treats them as existential quantifiers, whether ordinary ones (Karttunen 1977; May 1977) or dynamic ones (Haida 2007). Another takes them to be simply Heimian individual variables (Berman 1991; Beck 2006) and yet another uses a set-of-individuals construal (Hamblin 1973; Kratzer and Shimoyama 2002). In none of these approaches can a type-theoretical difference between wh-clauses/control constituents on the one hand and all other constituents on the other be naturally postulated: in all these theories wh-clauses denote (open) propositions (or sets of propositions in Hamblin/question semantics). Therefore, to the extent that the present argument is valid, it also provides an argument for a property-construal of wh-clauses and, by transitivity, for a syncategorematic logical-lambda treatment of wh-words (in their derived positions).

In summary, I argued that it is possible to draw a type-theoretical line between wh-clauses and obligatory control constituents on the one hand and all other types of embedded clauses on the other. This is the case if the former denote properties and the latter propositions. These analyses have been proposed on independent grounds, for all types of constructions involved, though rarely (if ever) in this particular conjunction. In the next section, I turn to a particular implementation of the property analysis of control MECs.

[19] See Šimík (2011: section 4.4.1) for one empirical reason to adopt the logical-lambda approach rather than Caponigro's type-preserving function approach.

5 A detailed analysis of control MECs and of the PRO-wh generalization

The general idea laid out in the previous section is that MECs, at the level of derivation at which they are selected by the control predicate, must denote properties. This ensures that the only possible constituents that can be "fed" into the relevant predicate are constituents with an OC PRO or a wh-word in their left periphery, thus accounting for the PRO-wh generalization introduced in section 3.2.

The particular implementation of this general idea, however, is not as straightforward as one could wish. The main issues we face concern (i) what I call the two-gap problem and (ii) the identity of the very control predicate. The first issue is illustrated in the schematic example (35). Under the present analysis, run-of-the-mill control MECs have two operators at their edge—the wh-operator and the OC PRO. Since both have the semantics of a logical lambda operator, the resulting expression is of type $\langle e, \langle e, t\rangle\rangle$, rather than $\langle e, t\rangle$, as envisioned in section 4.

(35) a. I_i have $[_{\mathrm{MEC}}$ with whom PRO_i to speak].
b. $[\![$with whom PRO to speak$]\!] = \lambda x \lambda y[\mathrm{can.speak.with}'(y, x)]$

A simple-minded modification of the proposal in favor of the $\langle e, \langle e, t\rangle\rangle$ type will not address the problem fully, however. The reason is that for multiple-wh MECs like the one from Czech in (36), the semantic type would have to be modified again. A schematic representation of this is given in (37).[20]

(36) Mám s kým o čem mluvit.
have:1sg with whom about what speak:inf
'There is a pair $\langle x, y\rangle$ such that I can speak to x about y.'

(37) a. I_i have $[_{\mathrm{MEC}}$ with whom about what PRO_i to speak].
b. $[\![$with whom about what PRO to speak$]\!]$
$= \lambda x \lambda y \lambda z[\mathrm{can.speak.with.about}'(z, y, x)]$

The issue is therefore more general and will inevitably include the problem of distinguishing wh-words from PRO.

The problem of the control predicate itself has two parts. Firstly, the question is why only stative predicates like 'be' and 'have' exhibit OC, while dynamic ones such as 'find', 'buy', etc. are NOC (see section 3.1). The second question is how exactly the control argument is introduced, esp. with such an impoverished argument structure as the existential 'be' presumably has, and what the structural relation is between this argument and the OC PRO.

In what follows I propose a solution in terms of a covert applicative predicate being hosted/licensed by the overt predicate that selects the MEC, be it 'be'/'have' or the dynamic predicates 'find', 'buy', etc. The applicative head

[20] It is virtually impossible to paraphrase multiple-wh MECs in English, which is why I only give a technical translation. See Šimík (2011: section 6.3) for a detailed discussion of the exact truth-conditions of multiple-wh MECs.

functions as a control predicate, having the formal properties envisioned in section 2. Non-subject wh-words move only after the applicative predicate projects its maximal projection, finishing the derivation of a MEC, which is then selected by a predicate of existence ('be', 'have', or a covert predicate in the complex structure of dynamic predicates). After introducing this analysis in section 5.2 and demonstrating how it accounts for both problems mentioned above, I will turn to the cases where PRO is "replaced" by a wh-subject. These will be tackled in section 5.3. Finally, section 5.4 deals with some predictions and problems of the proposed analysis. But for a start, let us provide a baseline analysis of MECs, forgetting about their control property for a while.

5.1 The baseline analysis of MECs

In Šimík (2011), I argued that within the class of wh-constructions (including questions and relative clauses) MECs are uniquely identified by being invariably selected by one and the same predicate (modulo some variation which is irrelevant for the present purposes). By default, this predicate, call it BE, expresses the state of availability of some object/individual. In more technical terms, BE characterizes a relation between some individual and a (minimal) situation/event of this individual being available. BE can either be spelled out as 'be' or 'have', depending on the language and possibly a number of other factors, or it can be spelled out together with more complex predicates, such as 'find' or 'buy', essentially playing the role of these predicates' result state.[21]

The simplified lexical entry for BE, i.e. its syntax, semantics, and phonology is given in (38) (in the form of a ⟨syn; sem; phon⟩ triple). This predicate can be phonologically realized as the morpheme for 'be' or 'have'. In the case of (39), the lexical entry for the process of finding, there is no phonological realization available (marked by the emptyset in the third element of the triple). The morpheme 'find', by assumption, corresponds to the complex predicate FIND+BE, whose lexical entry is provided in (40). It expresses the process of finding (in which some individual x is active) resulting in the state of availability of some y (see also Beck and Johnson 2004).[22]

(38) $\text{BE} = \Big\langle [_{\text{VP}}\ \text{x}_{\text{DP}}\ [_{\text{V}'}\ \text{State}\ \ldots]];\ \exists e, x[\text{be.available}'(e) \wedge \theta(e) = x];$ *be/have* $\Big\rangle$

(39) $\text{FIND} = \Big\langle [_{\text{VP}}\ \text{x}_{\text{DP}}\ [_{\text{V}'}\ \text{Process}\ \ldots]];\ \exists e, x[\text{find}'(e) \wedge \theta(e) = x];\ \emptyset \Big\rangle$

[21] For concreteness, I adopt a system where non-terminal nodes can be spelled out, see e.g. Ramchand 2008, Caha 2009, Starke 2011; but nothing crucial in the proposal hinges on this choice.

[22] The semantic format and the syntax-semantics mapping is inspired by Ramchand's (2008) constructivist approach to event semantics. Here, I introduce an insignificant simplification by replacing Ramchand's asymmetric causal "leads-to" relation between subevents ($\rightarrow$) by a simple Link (1983)-style operator ($\oplus$), assuming that the asymmetry between subevents (the "causation") can be read off directly from the syntactic hierarchy.

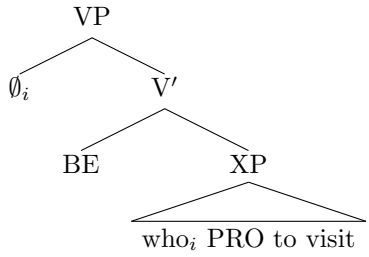
(40) FIND+BE = $\Big\langle$[$_{\text{VP}}$ x_{DP} [$_{\text{V}'}$ Process [$_{\text{VP}}$ y_{DP} [$_{\text{V}'}$ State ...]]]]; $\exists e, e', e'', x, y$[find$'(e') \wedge \theta(e') = x \wedge$ be.available$'(e'') \wedge \theta(e'') = y \wedge e = e' \oplus e''$]; *find*$\Big\rangle$

Notice that there are argument placeholders (x_{DP} and y_{DP}) in the syntactic part of the lexical entry and corresponding existentially quantified variables in the semantic part. This is a simplification reflecting the fact that the actual syntactic/semantic values of these placeholders are irrelevant for the conventional association between the three modules encoded in the lexical entry; in the actual syntax and semantics, these placeholders are replaced by actual DPs with whichever semantics they happen to have. The three dots within the (most embedded) VP hint at the possibility to "extend" the predicate by inserting more structure into its complement. This possibility is what underlies the creation of complex predicates such as FIND+BE and, as we will see shortly, also the possibility to "incorporate" MECs into the event structure of BE.

If the MEC is present, it is inserted into the complement of BE and the whole structure characterizes a complex situation of a state of availability of some object making it possible to "do" something with that object. With the notable exception of Spanish "headed" MECs (for discussion see Šimík 2011: section 6.5.1), the external argument of BE remains implicit in MECs and is existentially quantified over. For concreteness, I represent the argument as $\emptyset$ in the syntactic representations. Consider the pseudo-example in (41a) and its structural description in (41b).

(41) a. There is who to visit. ('There is someone who one can visit.')

b.



The syntax-semantics mapping of (41) is spelled out in detail in (42). The MEC, as shown in (42b), denotes a property concept (type $\langle s, et \rangle$), a set of situation-individual pairs. Notice that the wh-movement in MECs corresponds simply to lambda-binding, in accordance with the assumptions introduced in section 4. (The intensional construal of the property-type semantics, used here to capture the modal nature of MECs, does not affect the general point.) BE takes this MEC as its internal argument, while its external argument (the individual whose availability is predicated) is "backgrounded" (removed from

the syntax) and existentially quantified over.[23] This existentially quantified variable is also "fed" into the open individual argument position of the MEC, created by wh-movement. Notice that BE also introduces the possibility operator ($\exists e''$ below), ranging over a set of situations circumstantially accessible from e' (notated as $A(e')$).[24] The most salient circumstance restricting the modal quantifier is the one introduced by BE itself: the availability of x. The truth-conditions are derived by feeding (42b) into (42a), the result of which is shown in (42c). The sentence is true iff some individual x is in the state of availability e' and there is some circumstantially accessible situation e'' (i.e. a situation where, at least, x is available) in which somebody visits x.[25]

[23] Alternatively, the position is filled with a phonologically empty property-type nominal, preserving the existential quantification over the individual variable it introduces. See Šimík (2011: section 6.5) for discussion.

[24] The reader will notice that I conflate worlds and events into a single type of situations in this paper, relying on the construal of events as minimal situations (see Kratzer 2008). A relevant consequence of the conflation is that events can enter into modal accessibility relations (for a general discussion, see Kratzer 1991). If such an accessibility relation figures in the restriction of an event-quantifier, as is the case in (42), the quantified event is interpreted as modal (possible/necessary).

[25] Two anonymous reviewers wonder whether incorporating the modal component into BE is justified and give three reasons why BE should not be modal. First, as shown by Caponigro (2003:94), there are two kinds of MECs which are incompatible with modality in BE: MECs which contain an overt modal verb, (ia), and MECs which are not modal at all, (ib):

(i) a. C'è chi sà dire solo no.
there's who can:3sg say:inf only no
'There {is somebody/are people} who {says/say} no all the time.'
b. Anna Maria ha già chi le cura i bambini.
Anna Maria has already who to.her takes.care.of the children
'Anna Maria already has somebody who takes care of her children.'

Second, other types of infinitival constructions (such as infinitival questions or relatives) are interpreted in a modal fashion without involving BE or any other clear source of modality, suggesting that the modality stems from the infinitive itself. Third, it is possible to embed BE+MEC under an independent modal, as e.g. in the Czech example (ii).

(ii) Karel musí mít s kým mluvit.
must have with whom speak:inf
'Karel must have somebody with whom he could speak.'

Even though issues of MEC modality are largely orthogonal to the argument made in this paper, I am convinced that there are good arguments for placing the modal force into BE, and would therefore like to defend this analysis in this extended footnote. By way of addressing the first argument, let me point out that there is a reason to doubt whether the examples in (i) involve instances of MECs at all. The example in (iii) (from Ivano Caponigro, p.c.) demonstrates that existential predicates in Italian can in fact embed ordinary free relatives in Italian.

(iii) C'è chi non sopportiamo nell'altra stanza.
there's who neg stand.1pl in.the.other room
'The person/people who we can't stand is/are in the other room.'

We can therefore hypothesize that (i) are free relatives rather than MECs. That would explain why their main verb can be in the indicative and why they can contain an overt

(42) a. $[\![\text{BE}]\!] = \lambda Q_{\langle s,et\rangle} \lambda e_s \exists e'_s, x_e[\text{be.available}'(e') \wedge \theta(e') = x \wedge \exists e'' \in A(e')[Q(e'')(x) \wedge e = e' \oplus e'']]$

b. $[\![\text{who PRO to visit}]\!] = \lambda e_s \lambda x_e[\text{visit}'(e) \wedge \text{Ag}(e) = y \wedge \text{Th}(e) = x]$

c. $[\![(26)]\!] = [\![\text{BE}]\!]([\![\text{who PRO to visit}]\!])$
$= \exists e, e', x, y[\text{be.available}'(e') \wedge \theta(e') = x \wedge \exists e'' \in A(e')[\text{visit}'(e'') \wedge \text{Ag}(e'') = y \wedge \text{Th}(e'') = x \wedge e = e' \oplus e'']]$

There are two provisos to take into account, both included for expository reasons at this point. Firstly, the situation variable introduced by BE (e) is existentially closed, whereas normally it would either be bound by a higher predicate (such as FIND) or by an aspect or tense head. Secondly, the embedded subject is treated essentially as a NOC PRO and represented as an existentially closed variable (y). A proper analysis of this PRO is what I turn to now.

5.2 Introducing the control predicate

Having laid out the basic syntactic and semantic analysis of MECs, let us now move on to the analysis of control. The core proposal made here is that the control predicate is not BE itself, but rather a separate atomic predicate—call it FOR. This predicate is a kind of applicative head, expressing a state in which its specifier profits/benefits from the event described in its complement. The implementation of this idea is fully incorporated into the presently assumed system of assembling complex predicates from atomic event predicates. In particular, the idea is that the MEC-embedding predicate BE always comes coupled with the abstract predicate FOR (similarly as the process FIND always

modal. The only remaining problem would be their interpretation, as it is standard to assume that free relatives can only be definite (Jacobson 1995; Caponigro 2003). Yet, apparently indefinite free relatives are well-known in the literature (e.g. *John wants to write what sells well* = 'John wants to write some/??the book that sells well'). These have either been analyzed as genuine indefinites (Berman 1991; Wiltschko 1999) or as definite kinds with existential quantification over kind-instantiations (Hinterwimmer 2008). Note that the definite-kind interpretation is intuitively very plausible for (i): 'There are the kind of people who always say no' and 'A. M. already has the kind of person who takes care of her children.' Let me now address the second argument. If the infinitive itself were responsible for the modal reading of the MEC, one would expect there to be a broad range of root-modal interpretations available—not only possibility but also necessity and not only a plainly cirumstantial modality but also a bouletic or deontic one. At least that is the hallmark of infinitival constructions with no overt modal in them, such as infinitival questions and relatives (see Bhatt 2006 for discussion). Yet, as I show in Šimík (2011: chapter 4), the modality in MECs is not subject to contextual specification—it is grammatically restricted to plain circumstantial possibility (for a brief discussion of Czech MEC-like constructions involving deontic necessity readings, first observed by Zubatý 1922 and also noted by an anonymous reviewer, see Šimík 2011: section 2.2.6). This, I argued, can only be explained by relating MECs' modality to their distribution and their distribution is in turn strictly tied to the availability predicate BE (see also Grosu 2004 for discussion). Finally, addressing the third argument, I would like to suggest that (ii) is simply an instance of modal-quantifier stacking. The phenomenon is not uncommon for combinations of modals (cf. *She might have/want to go there*) and quite commonplace for combinations of modals with intensional verbs (e.g. *She should look for it in the drawer*).

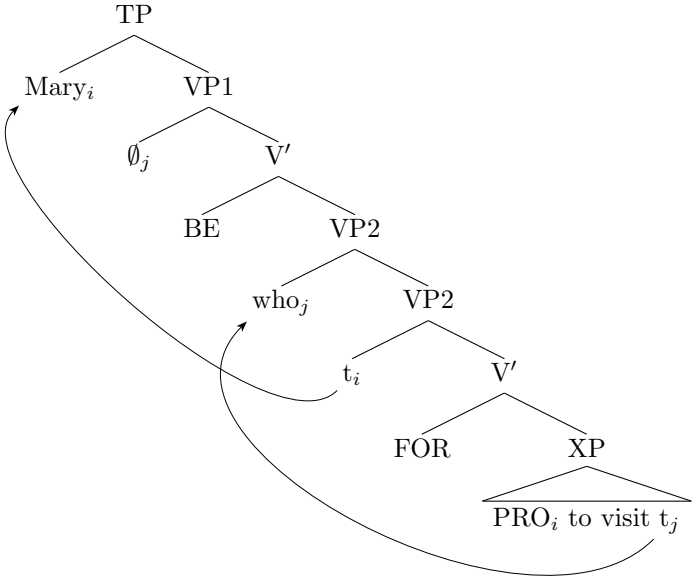
comes with the result state BE). The lexical entry of BE+FOR is given in (43). (Notice that it includes the modality introduced by the BE subpredicate.)[26]

(43) BE+FOR = $\Big\langle$[$_{\text{VP}}$ x$_{\text{DP}}$ [$_{\text{V}'}$ State$_1$ [$_{\text{VP}}$ y$_{\text{DP}}$ [$_{\text{V}'}$ State$_2$ ...]]]]; $\exists e, e', x, y$[be.available$'(e') \wedge \theta(e') = x \wedge \exists e'' \in A(e')$[profit$'(e'') \wedge \theta(e'') = y \wedge e = e' \oplus e''$]]; *be/have*$\Big\rangle$

In order to illustrate how (43) works, let us revisit our simple example (41), this time modified in such a way that the selecting predicate can host an overt controller such as *Mary* in (44a). In (44b) we can see the proposed structural description of (44a). Notice that *Mary* is base-generated in the argument position of the applicative predicate FOR and subsequently gets formally licensed in the matrix TP area.

(44) a. Mary has who to visit. ('Mary has somebody who she can visit.')

b.



The derivation of the truth-conditions of (44) is given in (45). Concentrate first on the semantics of the applicative predicate FOR in (45a). Notice that its semantic profile is essentially one of a control predicate in property theories of control (see section 2), modulo event semantics, in that it takes two arguments, a property (Q) and an individual (x) and attributes the property to that individual. In this particular example, FOR takes the control constituent XP as its internal argument. Such constituents, as proposed in section 4, have the same semantics as wh-clauses (cf. (42b) above and (45d) below), namely one of a property concept, where PRO corresponds to a lambda-operator binding the

[26] The difference between control MECs and raising MECs, introduced in section 3.1, is that only control MECs are selected by BE+FOR, whereas raising MECs are selected either by BE only or alternatively by BE+FOR where FOR is semantically impoverished.

subject variable. (The introduction of the lambda-binding could, but need not be achieved by operator/PRO-movement; cf. the discussion in section 2.) The external argument of FOR, *Mary,* functions as the controller. The semantics of the complete VP is in (45c) and characterizes a situation in which Mary profits from visiting somebody. The resulting constituent is targeted by wh-movement, which corresponds to lambda-binding of the trace.[27] The rest of the derivation proceeds just like in (42)—BE (defined in (42a)) takes the wh-clause as its argument and the result (after existentially closing the event variable) is true iff some individual x is in the state of availability e' and there is some circumstantially accessible situation e'' in which Mary profits from visiting x.

(45) a. $[\![\text{FOR}]\!] = \lambda Q_{\langle s,et\rangle}\lambda x_e\lambda e_s\exists e'_s, e''_s[\text{profit}'(e') \wedge \text{Exp}(e') = x \wedge \text{Th}(e') = e'' \wedge Q(e'')(x) \wedge e = e' \oplus e'']$

b. $[\![\text{PRO to visit}]\!] = \lambda e_s\lambda y_e[\text{visit}'(e) \wedge \text{Ag}(e) = y \wedge \text{Th}(e) = x]$

c. $[\![\text{Mary FOR PRO to visit}]\!] = [[\![\text{FOR}]\!]([\![\text{PRO to visit}]\!])]([\![\text{Mary}]\!])$
$= \lambda e_s\exists e'_s, e''_s[\text{profit}'(e') \wedge \text{Exp}(e') = \text{mary}' \wedge \text{Th}(e') = e'' \wedge \text{visit}'(e'') \wedge \text{Ag}(e'') = \text{mary}' \wedge \text{Th}(e'') = x \wedge e = e' \oplus e'']$

d. $[\![\text{who Mary FOR PRO to visit}]\!]$
$= \lambda e_s\lambda x_e\exists e'_s, e''_s[\text{profit}'(e') \wedge \text{Exp}(e') = \text{mary}' \wedge \text{Th}(e') = e'' \wedge \text{visit}'(e'') \wedge \text{Ag}(e'') = \text{mary}' \wedge \text{Th}(e'') = x \wedge e = e' \oplus e'']$

e. $[\![(29)]\!] = [\![\text{BE}]\!]([\![\text{who Mary FOR PRO to visit}]\!])$
$= \exists e, e', x[\text{be.available}'(e') \wedge \theta(e') = x \wedge \exists e'' \in A(e') \wedge \exists e''', e''''[\text{profit}'(e''') \wedge \text{Exp}(e''') = \text{mary}' \wedge \text{Th}(e''') = e'''' \wedge \text{visit}'(e'''') \wedge \text{Ag}(e'''') = \text{mary}' \wedge \text{Th}(e'''') = x \wedge e = e' \oplus e'' \wedge e'' = e''' \oplus e'''']]$

This analysis is supported by a number of arguments. I would like to mention three of them, drawing primarily from Russian facts. Let us come back to the structural description of control MECs under the present analysis, the general schema of which is repeated below.

(46) $[_{\text{TP}} \ldots [_{\text{VP1}} \emptyset_j [_{\text{V'}} \text{BE} [_{\text{VP2}} \text{wh}_{2/j} [_{\text{VP2}} \text{subj}_i [_{\text{V'}} \text{FOR} [_{\text{XP}} \text{PRO}_i \ldots t_2]]]]]]]$

I have assumed that the matrix subject, i.e. the controller of the embedded PRO, is generated in a low position and is licensed by A-movement to the TP domain. In Russian, the TP domain of the MEC-embedding predicate *est'* 'be' does not possess the right features to license the subject, in other words, the matrix predicate is impersonal. Yet, Russian MEC subjects can be formally licensed in their base position—the head FOR can assign lexical dative to it—and the movement that they undergo is a non-feature driven satisfaction of the EPP requirement (see Bailyn 2004 and the references therein):

[27] I adopt a theory of free wh-movement in which wh-movement is not motivated by feature-checking. As a result, wh-movement need not target any specific syntactic projection (such as CP[+wh]), it can freely move to any syntactic constituent, as long as it respects independent locality constraints and interface/interpretability conditions. This theory is sketched in Šimík (2011: chapter 5) and developed in detail in Šimík (2012a). See also Pancheva (2010) and Pancheva and Tomaszewicz (2011) for related ideas.

(47) { Emu /* on} est' s kem ostavit' detej.
he:dat / he:nom be:imprs with whom leave:inf children
'He has somebody with whom he can leave the children.'

The EPP requirement on T in Russian, however, can also be satisfied by other constituents than the logical subject and in such cases, the subject is predicted to stay in situ. Interestingly, we expect the subject to follow the wh-word in these cases, as the wh-word adjoins to the VP that hosts it. The following examples are adapted from Livitz (2012). Notice that the subject *mne* 'me:dat' in (48a) cannot just be an additional subject in the infinitival, since adding another dative-marked subject results in ungrammaticality, as witnessed by (48b).[28]

(48) a. Zdes' est' čto mne nadet'.
here be:imprs what me wear:inf
'I have something here that I can wear.'
b. *Mne est' čto tebe nadet'.
me:dat be:imprs what you:dat wear
'I have something that you can wear.'

The argument just presented shows that what appears to be a matrix subject in fact originates within the MEC, particularly below the fronted wh-word. As an anonymous reviewer rightly points out, this does not yet show that the dative argument originates in SpecFORP: it could just as well be base-generated as an ordinary subject of the embedded predicate, i.e. in SpecvP. Such an analysis of dative MEC subjects has actually been proposed, namely by Babby (2000), and has recently been adopted and further argued for by Livitz (2012). Essentially, such an analysis places Russian MECs into the class of raising MECs: there is no control predicate, hence no PRO, the subject of the MEC predicate is lexical—the dative-marked DP, which can subsequently raise into the matrix clause. The insufficiency of such an analysis is demonstrated by the contrast in (49): the dative argument displays an animacy restriction, which would be unexpected under the view that it is generated as an ordinary external argument of the embedded vP and the dative it bears is a structural Case licensed in the functional layers of Russian infinitives, as assumed by

[28] As also observed by Livitz (2012), the dative subject can be accompanied by a prepositional genitive subject—the canonical expression of possessor in Russian:

(i) U menja est' čto tebe nadet'.
at me:gen be:imprs what you:dat wear:inf
'I have something that you can wear.'

This is not problematic for the present analysis, since the dative controller does not have possessor but rather benefactive semantics/syntax and as such does not block the presence of independent possessors, which can presumably be introduced by enriching the event and argument structure of the availability predicate.

Babby (2000) and Livitz (2012), who in turn follow previous literature on related matters (see e.g. Moore and Perlmutter 2000).[29]

(49) { Kole /# Vetru} zdes' nečego razrušat'.
Kolja:dat wind:dat here neg:what destroy:inf
'Kolja / the wind has nothing more to destroy here.'

The assumption in the present analysis is that the animacy restriction is imposed on the argument by the benefactive head FOR. Effectively, what the MEC in (49) entails is that it is somehow good or profitable for the subject to destroy something. While destroying something may well be profitable for a human, it is difficult to imagine how it could be profitable for an inanimate entity such as wind.[30]

Consider further the following three sentences. They show clearly that the animacy effect observed in (50a) emerges specifically in the subject position of the MEC and that neither the embedded predicate *napugat'* 'scare', (50b), nor the predicate *est'* 'be', (50c), can be held responsible for the animacy requirement.

(50) a. #Novomu fil'mu nekogo napugat'.
new film:dat neg:who scare:inf
'There is nobody who the new film could scare.'
b. Novij fil'm napugal detej.
new film:nom scared children
'The new film scared the children.'
c. U novogo fi'ma uže est' nazvanie.
at new film:gen already be name

[29] The same restriction applies in other languages, too: (ia) is an example from Spanish and (ib) from Czech.

(i) a. #Todo el mundo se fue, así que la película ya no tiene a quién
all the world refl gone so that the movie already neg has a who
asustar.
scare:inf
'Everybody has left, so the movie no longer has anybody to scare.'
b. #Ta skříň neměla, kdo by ji opravil.
the closet neg.had who sbj.3 it fix:pst.ptcp
'The closet had nobody to fix it.'

[30] Animacy restrictions of the kind discussed here are heavily dependent on pragmatics and world knowledge and it is therefore not unexpected to find examples where inanimate subjects will, in the end, not sound all that bad. An example like that is provided by Livitz (2012):

(i) Vode nekuda teč.
water:dat neg:where.to flow:inf
'There is nowhere for the water to flow.'

I will not speculate why exactly (i) sounds more acceptable than (49), but the prediction is that it is easier to conceive of flowing as profitable for water than it is for destroying something as profitable for wind.

'The new film already has a name.'

An explanation which would render the present argument for FOR invalid was sketched by Livitz (2012), who suggested that the animacy restriction stems from the modality involved in MECs. Unfortunately, Livitz is not specific about what exactly is responsible for the observed restriction (i.e. how exactly the modal operator interacts with the dative argument). As she herself notes, not every modally interpreted infinitive imposes animacy restrictions on its dative-marked external argument. Consider the following examples: in (51a) an animacy restriction is observed but in (51b)/(51c) it is not ((51a), (51b) are from Livitz and (51c) is from Kondrashova 2009).

(51) a. #Ja ne znaju čto vetru razrušat'.
I neg know what wind:dat destroy:inf
'I don't know what the wind has to destroy.'
b. Vetru ne razrušit' etot dom!
wind:dat neg destroy this house
'The wind will not be able to destroy this house.'
c. Gruzoviku zdes' budet ne proexat'.
truck:dat here be:fut neg drive.through:inf
'A truck won't be able to get through here.'

In my view, animacy restrictions associated with modality are expected under certain types of readings such as bouletic readings, in which the subject is a bearer of properties like wishing/wanting something to happen, or deontic readings, in which some social rules, laws, or tasks are imposed on the subject. Such properties clearly entail conscious involvement of the subject and as such are incompatible with inanimates, as the following examples illustrate.

(52) a. Dave/#The wind wishes to destroy the house.
b. Following the decision of the mayor, Dave/#the wind has to demolish the house.

Epistemic and plainly circumstantial modality, on the other hand, impose no animacy restrictions on subjects, as illustrated in (53).

(53) a. As far as we know, Dave/the wind could destroy the house.
b. Given what happened yesterday [e.g. Dave's drinking, heavy weather], Dave/the wind could destroy the house.

As noted by Pancheva-Izvorski (2000) and argued extensively in Šimík (2011), the modality MECs convey is of the plainly circumstantial type, i.e. it is the closest to the one expressed in (53b). Therefore, by default, we would not expect the modality in MECs to impose any animacy restriction on the subject, contrary to what Livitz suggests. From a cross-linguistic point of view, this is clearly supported, since there are MECs, namely raising MECs (see section 3.1), which not only do not require animate/human subjects, they even allow for non-referential subjects. Consider the following examples from Czech:

(54) a. Vítr tady nemá co zničit.
wind:nom here neg.has what destroy:inf
'The wind has nothing to destroy here.' (no animacy inference present)
b. Nemělo tady kdy pršet.
neg.had here when rain:inf
'There was no time when it could rain here.'

If modal properties of MECs are cross-linguistically stable, and in Šimík (2011: chapter 2) I argue that they are, it follows that the animacy restriction observed in Russian cannot be due to modality, contrary to what Livitz (2012) suggests.

Finally, the presently assumed syntax and semantics of control MECs could also be held responsible for the impossibility to front (e.g. topicalize) the MEC, along with its wh-word, which is demonstrated in (55a). This is because if the wh-clause fronts, the FOR-part of the complex BE+FOR predicate must move along and the adjacency of BE and FOR, required for the lexicalization of the predicate is disrupted. Crucially, fronting of the infinitival MEC is not ruled out per se, as long as the wh-word is stranded (presumably along with the FOR predicate).

(55) a. *[$_{\text{MEC}}$ Čemu poučit'sja]$_1$ est' t_1.
what learn:inf be:imprs
'There is something that you can learn.' (intended)
b. [$_{\text{XP}}$ Poučit'sja]$_1$ est' čemu t_1.
learn:inf be:imprs what
'There is something that you can learn.'

The following examples rule out some potential alternative explanations of the pattern in (55). Example (56a) shows that there is no general ban on wh-clause fronting in Russian, as embedded wh-questions can topicalize; the contrast with (56b) points to an even deeper dissociation between the behavior of MECs and corresponding interrogatives.[31]

(56) a. [$_{\text{Q}}$ Čemu poučit'sja]$_1$ ja neznaju t_1
what learn:inf I neg:know:1sg
'I don't know what to learn.'

[31] The contrast in acceptability between (55b) and (56b) is compatible with a number explanations. One of them makes reference to anti-locality (see e.g. Abels 2003), where in order for the infinitival embedded TP (*poučit'sja* 'learn:inf') in (56b) to move to the matrix CP, it would have to stop at the edge of the embedded CP, i.e. it would have to move from the complement of the embedded C to its specifier—a movement ruled out by anti-locality. The reason why a similar restriction does not apply in (55b) might very well correspond with the fact that MECs (at least in Slavic languages) do not constitute phase boundaries, being structurally relatively small (for discussion see Šimík 2011: chapter 5), for which reason the embedded infinitive can move to the matrix in a single step.

b. ??[$_{TP}$ Poučit'sja]$_1$ ja ne znaju čemu t_1
learn:inf I neg know what
'As for learning I don't know what to learn.' (intended)

Finally, the ungrammaticality of (55a) cannot be blamed on the general unacceptability of the clause-finality and/or focusing of the verb *est'*. The following example demonstrate this (small capitals mark main accent):

(57) Knigi u menja EST'.
books at me be
'I DO have books.'

An anonymous reviewer points out that the present analysis seems to overgenerate readings of MECs by allowing for a narrow scope reading of the matrix subject with respect to the existential quantification over the wh-introduced variable (built into the semantics of BE, see (42a)). This is because the matrix subject originates in the specifier of FOR, which is lower than BE as well as the wh-introduced variable which BE existentially closes. The claim that matrix subjects in MECs always outscope the existential quantification introduced by BE was most prominently made by Pancheva-Izvorski (2000) for Bulgarian.[32] The example (58) replicates this, though only to a certain extent, for Russian.

(58) Každomu studentu est' o čem so mnoj pogovorit'.
every student:dat be about what with me speak:inf
a. 'For every student there is something (potentially something different) that s/he can speak about with me.'
b. ??'There is something (specific) that every student can speak about with me.'

My informant reports that the narrow scope reading for the universally quantified subject *každomu studentu* 'every student', (58b), is not completely out—it is just difficult to get and, in addition, the wide scope reading (58a) is clearly much more salient. The preference for a wide scope reading of quantifiers with respect to BE is in fact not limited to subjects. In Šimík (2008), I observed an analogous behavior of MEC-internal quantificational objects in Czech (and the same seems to be attested in other languages), though clearly, (59b) is much more easily available than (58b).

(59) Mne est' o čem pogovorit' s každym studentom.
me:dat be about what speak:inf with every student
a. 'For every student there is something (potentially something different) that I can speak about with him/her.' (more prominent)
b. 'There is something (specific) that I can speak about with every student.' (less prominent)

[32] According to Plann (1980), the observation that the existential quantification introduced by BE has narrow-scope only goes back to Bello (1847).

Finally, the degraded status of (58b) contrasts in acceptability with (60b)—a wide scope reading of BE with respect to matrix negation, which is utterly impossible. This is expected if both the scope of the negation and of BE are fixed by base-generation, with no available transformation operation (such as quantifier raising) that could reverse it.

(60) Mne ne s kem pogovorit'.
me neg with who speak:inf
a. 'There is nobody that I can speak with.'
b. **'There is a (specific) person that I cannot speak with.'

I conclude that it is too strong to fix the scope of MEC subjects as wide with respect to BE in the grammar and that the flexibility offered by the present analysis is in fact desirable. Which factors exactly play a role in determining the scope of BE with respect to quantificational phrases remains an open question.

Before I turn to the analysis of MECs with wh-subjects, I would like to show how the problems pointed out in the introduction to this section can be addressed under the present analysis.

The first problem, dubbed the "two-gap problem," was that the embedded predicate must somehow be able to tell apart the two operators at the edge of the MEC: the wh-word and the PRO. The solution offered by the present analysis lies in the decomposition of the matrix predicate into the availability predicate BE and the applicative FOR. The structurally lower FOR selects for the control constituent (whose edge only contains the PRO-operator) and at a subsequent point of the derivation, i.e. after the control relation has been established, BE selects for the wh-clause, introducing the predicate relation between the wh-clause and the (phonologically empty) object whose availability is predicated.[33]

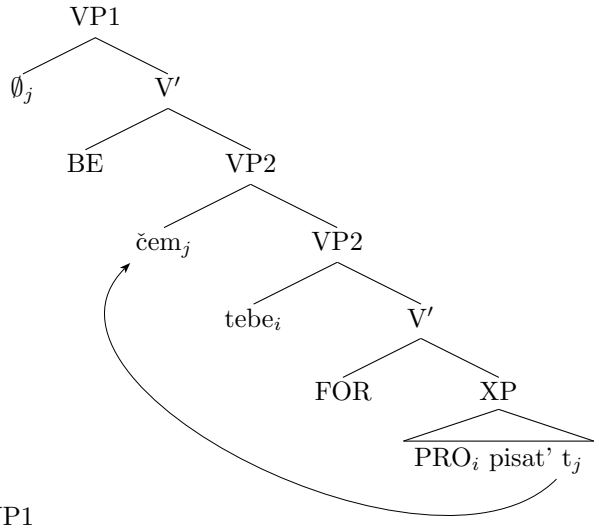
The empirical part of the second issue is summarized by the pattern in (61). The question was why only stative predicates ('be'/'have') but not dynamic ones ('find', 'buy', etc.) behave as OC predicates. This is illustrated below on Russian.

(61) a. Tebe$_i$ est' čem PRO$_{i/*j}$ pisat'?
you:dat be:imprs what:instr write:inf
'Do you have anything that you/*I/*one can write with?'
b. Ty$_i$ našel čem PRO$_{i/j}$ pisat'?
you:nom found what:instr write:inf
'Did you find anything that you/I/one can write with?'

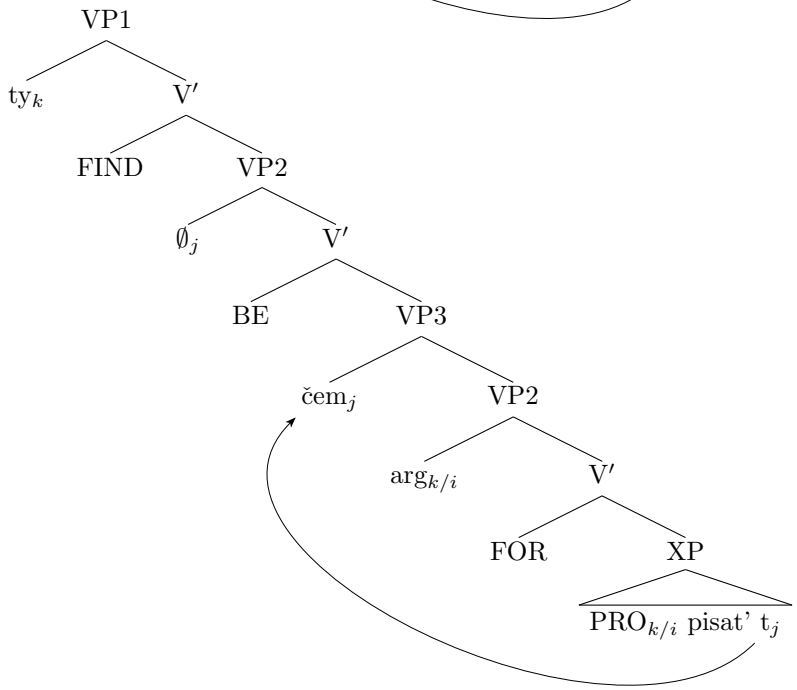
I believe that the present analysis offers a relatively elegant solution which need not resort to stipulations. Consider the following two structural descriptions, corresponding to the sentences above (notice that now 'find' corresponds to the complex predicate FIND+BE+FOR):

[33] The case of multiple-wh MECs requires a special treatment. See Šimík (2011: section 6.3) for discussion.

(62)



(63)



What should have to happen in order for *ty* 'you' in the matrix of (61b)/(63) to obligatorily control the embedded PRO? Basically, the argument of FOR, marked as arg in (63), would have to raise to the argument position of FIND. In other words, arg would have to be a trace after raising of *ty* 'you'. This, however, would be a movement out of a Theta-position into another Theta-position. While it has been proposed that such movement should be allowed (see Hornstein 2001), there seems to be no place/need for such an operation in the present system of control, where obligatory control is established in seman-

tics rather than in syntax (e.g. by A-movement). I conclude that the implicit arugment arg in (63) is a non-obligatorily controlled PRO (semantically an existentially closed variable). Notice that this analysis can also be applied to cases with no overt controller, such as (64). In these cases, it is possible that the controller is simply implicit—represented as a NOC PRO.[34]

(64) Est' kuda [$_{\text{VP}}$ PRO$_{i_{arb}}$ [$_{\text{V}'}$ FOR [$_{\text{XP}}$ PRO$_i$ idti]]].
be:imprs where.to go:inf
'There is a place where one can go.'

In summary, I proposed an analysis of the control predicate as being a part of the MEC-embedding predicate, rather than being the predicate itself. Though the analysis comes at the cost of postulating covert structure, it has some welcome consequences, both syntactic and semantic.

5.3 The case of wh-subjects

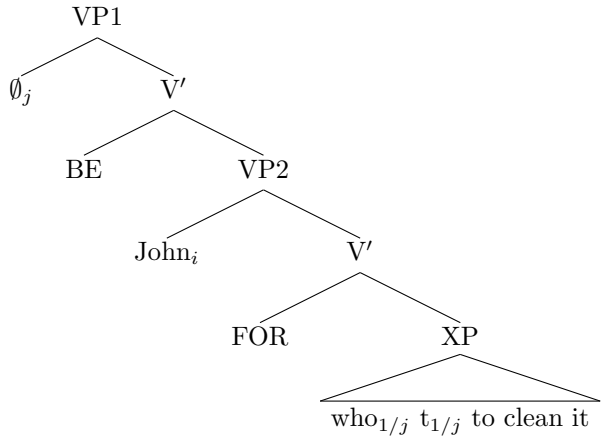
So far, the present analysis accounts for the contrast between the pseudo-examples (65a) and (65b) (see section 3.2 for real examples). As was discussed in section 4 and developed in more detail in the previous subsections, (65b) is ruled for type-clash reasons: the control constituent is of a propositional rather than a property type. It is now time to say more about (65c) and thus complete the explanation of the PRO-wh generalization.

(65) a. John$_i$ has with what PRO$_{i/*j}$ to clean it.
b. *John$_i$ has with what Mary$_j$ would clean it.
c. John$_i$ has who$_j$ would clean it.

The analysis and the background assumptions so far entail that in (65c) the control predicate FOR selects the wh-clause, containing the wh-subject:

[34] In fact, an analogous analysis can be applied to the class of non-control MECs embedded by 'be' or 'have', e.g. in Greek. In such MECs, the overt subject of 'be'/'have' would not originate in the specifier of FOR (which would simply host a NOC PRO), but rather higher in the structure, similarly to the argument of FIND. (Such subjects would be parallel to the possessor *u menja* 'at me' in the Russian example in footnote 28.)

(66)



Notice that the XP in (66) is of the right semantic type, i.e. $\langle s, et\rangle$, which means it can be selected by FOR and the semantic computation can proceed further (unlike in (65b)). Yet, there are two rather serious problems. Firstly, given the semantics of FOR, *John* should control *who* and the sentence should be true just in case John is actually about to do the cleaning. This is obviously wrong. Secondly, BE has no "access" to the wh-word (and hence to the variable bound by it), so even if the type-clash that now arises between BE and VP2 could be fixed, the whole sentence would mean that there is some individual and that John can profit from doing some cleaning. This is also wrong.

I propose that these semantic issues can be solved by a coercion of the meaning of FOR. The goal is (i) to avoid establishing the control relation between the argument of FOR and the variable bound by the wh-word and (ii) to let the meaning of the wh-word "percolate" one step higher, in order to make it accessible to BE. The coerced version of FOR which achieves both of these goals is given in (67) (compare with (45a) above). Let us distinguish the coerced version of FOR from the ordinary one by marking it with a prime: FOR′.

(67) $[\![\text{FOR}']\!] = \lambda Q_{\langle s,et\rangle}\lambda x_e\lambda y_e\lambda e_s\exists e'_s, e''_s[\text{profit}(e') \wedge \text{Exp}(e') = x \wedge \text{Th}(e') = e'' \wedge Q(e'')(y) \wedge e = e' \oplus e'']$

The lambda prefix λx introduces the benefactive argument (*John* in (66)), while λy corresponds to the percolating wh-word and at the same time fills the entity-type gap in the complement of FOR′ (namely Q). Importantly, the semantic type of Q remains unaffected by the coercion, still allowing us to capture the PRO-wh generalization. Now, with FOR′ replacing FOR, the sentence in (66) has the right truth conditions: it is true iff there is some individual and it is possible that John profits from that individual cleaning something. For explicitness, I provide a stepwise derivation of these truth-conditions in (68). (The free variable *it* is represented as an individual constant c for simplicity.)

(68) a. $[\![\text{who to clean it}]\!] = \lambda e_s \lambda x_e [\text{clean}'(e) \wedge \text{Ag}(e) = x \wedge \text{Th}(e) = \text{c}]$
b. $[\![\text{John FOR}' \text{ who to clean it}]\!] = [[\![\text{FOR}']\!]([\![\text{who to clean it}]\!])]$
$([\![\text{John}]\!]) = \lambda y_e \lambda e_s \exists e'_s, e''_s [\text{profit}(e') \wedge \text{Exp}(e') = \text{john}' \wedge \text{Th}(e') =$
$e'' \wedge \text{clean}'(e'') \wedge \text{Ag}(e'') = y \wedge \text{Th}(e'') = \text{c}] \wedge e = e' \oplus e'']$
c. $[\![(66)]\!] = [\![\text{BE}]\!]([\![\text{John FOR}' \text{ who to clean it}]\!])$
$= \exists e, e', x [\text{be.available}(e') \wedge \theta(e') = x \wedge \exists e'' \in A(e') \wedge$
$\exists e''', e'''' [\text{profit}(e''') \wedge \text{Exp}(e''') = \text{john}' \wedge \text{Th}(e''') = e'''' \wedge$
$\text{clean}'(e'''') \wedge \text{Ag}(e'''') = x \wedge \text{Th}(e'''') = \text{c}] \wedge e = e' \oplus e'' \wedge$
$e'' = e''' \oplus e''']]$

There are three outstanding questions to be addressed. Firstly, what triggers the coercion of FOR into FOR′? Secondly, how exactly is the wh-subject formally licensed, given that it appears in the syntactic environment of OC PRO? Thirdly, what prevents non-subject wh-words from moving to this lower position, utilizing FOR′ instead of FOR, in effect allowing for non-PRO/wh subjects to occur, and ultimately destroying the PRO-wh generalization? In what follows I propose a single answer to these questions.

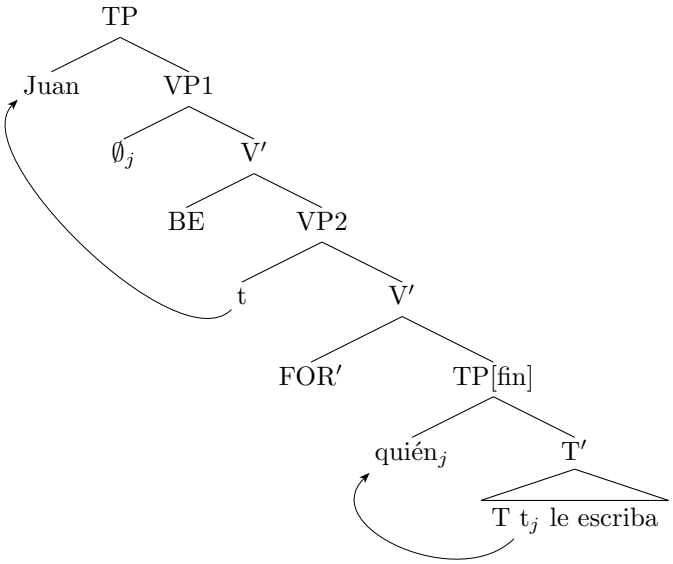
It is likely that the structure immediately below FOR/FOR′ is intimately associated with formal licensing of subjects. In PRO-subject MECs, this structure (so far designated as XP) will be some sort of a defective TP, capable of licensing the OC PRO (e.g. by checking its Case, cf. Chomsky 1995; Martin 2001). It is obvious that something must be different in wh-subject MECs. There are two basic cases to distinguish. The first case is represented by Spanish, which replaces the infinitive by the subjunctive if and only if a wh-subject is present. (Hebrew behaves in the same way, except that the subjunctive marker is replaced by a future marker.) This seems like a last resort act utilized just to Case-license an overt subject. Notice, once more, that no other overt subject can parasite on this act, as it will not yield an interpretable LF. If the subjunctive structurally differs from the infinitive, then it is not surprising that the two are also selected by a slightly different predicate. In other words, there is a structural cue for FOR to coerce into FOR′ and an interface condition on its interpretability. The second case is represented by Russian. Russian does not rely on a structural change in the complement of FOR, rather, it seems to locate the change in FOR itself—by "shifting" it into an exceptional Case-marking (ECM) predicate. The effect of this shift is that the wh-subject in Russian is not nominative-marked (as in Spanish), but rather dative-marked. An interesting consequence of this shift from an ordinary FOR to an ECM FOR′ is that Russian, as opposed to Spanish, cannot license an overt external argument of FOR′ (recall that BE itself cannot license overt arguments in Russian). The examples in (69) show the relevant contrast between Spanish and Russian.

(69) a. Juan no tiene quién le escriba.
J. neg has who him write:sbj.3sg
'Juan has nobody who could write him.'

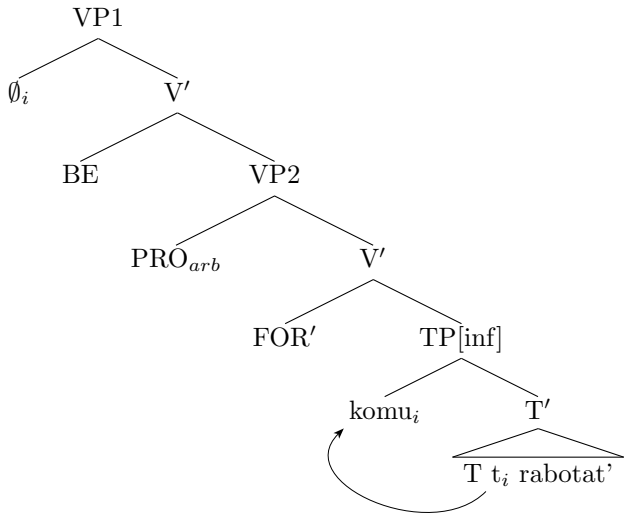
b. (* Maše) zdes' est' komu rabotat'.
M.:dat here be who:dat work:inf
'Maša has/there is somebody who can work.'

Now let us have a look at the structural descriptions of the two sentences above. In Spanish, the wh-word fronts to the edge of the complement of FOR′ and it is the complement itself (presumably the TP/finiteness related structure) that formally licenses this subject. As a result, FOR′ can host its own overt argument, which in turn gets formally licensed in the matrix TP. In Russian, on the other hand, no subjunctive in MECs is available. The structure remains identical and the wh-subject at its edge gets exceptionally dative-marked by FOR′. Because the predicate has already discharged its Case-licensing capacity and because there is no Case-licensing functional structure in the matrix, its external argument must necessarily be covert and in no need of formal licensing, i.e. presumably a NOC PRO.

(70) a. *Spanish*



b. *Russian*



Notice that this proposal about the structure of control MECs with wh-subjects establishes a very close relationship between the "shifted" structure/form of the MEC and/or the predicate it is selected by and the "shifted" semantics of this predicate, as characterized in (67).

Does the proposal shed any light on the third problem, namely why other than subject wh-words cannot front to the complement of FOR′? I believe it does. Notice that the coercion of FOR into FOR′ is now closely tied to subject-licensing, whether by a structural change of its complement as in Spanish or by a change in the "direction" of Case-marking as in Russian. In either case, FOR′ is only motivated if the edge of its complement contains an expression that also must be licensed at that edge. Now, in all other cases, i.e. in non-subject wh-words, this is not the case, the wh-word is always licensed independently and hence, there is no motivation for FOR to shift.

5.4 Predictions and problems

The proposed explanation of the PRO-wh generalization crucially relies on the postulation of two covert applicative heads—FOR and FOR′—which get lexicalized as the lowest atomic event predicates of the more complex predicates which embed MECs (minimally BE+FOR/FOR′). FOR behaves as a "semantic" control predicate in the sense specified in section 2: it introduces a controller in its specifier, whose semantic value is used as an argument of the property-type expression in its complement—the control constituent—leading to the establishment of the obligatory and exhaustive control relation. FOR′ is derived from FOR by a morphosyntactically triggered semantic coercion. Like FOR, it selects for a complement which denotes a property, though this time the property is not derived by the merging a PRO-subject at the edge of the complement but rather by merging a wh-subject there. The coerced

semantics ensures that the variable introduced by the wh-word gets bound by the availability predicate rather than by the argument of FOR′, i.e., no control relation gets established.

The derivational relation between FOR and FOR′, their similarities and differences, as well as the respective structures in which they appear, give rise to some predictions. In what follows, I discuss a number of them and show that some are borne out, while others prove problematic. Yet, the problematic facts are not deadly for the proposed analysis.

The difference between FOR and FOR′ translates directly to a difference in wh-movement, in particular the target and the type of movement. In PRO-subject control MECs, wh-expressions move to the maximal projection of FOR, arguably an A-bar position. In wh-subject control MECs, on the other hand, wh-expressions move to the edge of the complement of FOR′, a position which is involved in Case-licensing of the wh-subject and is therefore arguably an A-position. It is this property that could be behind the lowered acceptability of sluicing with wh-subjects in MECs: see the (d)-examples in (71) for Russian and (72) for Spanish. Note that sluicing in MECs is perfect with wh-non-subjects, as seen in the (c)-examples, and also, the full versions of both (c) and (d), i.e. (a) and (b), respectively, are fully acceptable (modulo the potential pragmatic oddness caused by reusing the same lexical material).

(71) a. Nužno bilo vstretit' gost'a, no bilo negde ego vstretit'.
needed was meet:inf guest:acc but was neg:where him meet:inf
'We were supposed to meet the guest but there was no place where we could meet him.'

b. Nužno bilo vstretit' gost'a na stancii, no bilo nekomu ego vstretit'.
needed was meet:inf guest at station but was neg:who:dat him meet:inf
'We were supposed to meet the guest at the station but there was nobody who could meet him.'

c. Nužno bilo vstretit' gost'a, no bilo negde.
needed was meet:inf guest:acc but was neg:where
'We were supposed to meet the guest but there was no place where we could meet him.'

d. ?Nužno bilo vstretit' gost'a na stancii, no bilo nekomu.
needed was meet:inf guest at station but was neg:who:dat
'We were supposed to meet the guest at the station but there was nobody who could meet him.'

(72) a. Quería escribirle una carta a alguien, pero no tenía a quién escribirle.
wanted:1sg write:inf.cl a letter to somebody but neg had:1sg a who write:inf.cl
'I wanted to write a letter to somebody but there was nobody I could write a letter to.'

b. Quería que alguien me escribiera una carta, pero no
wanted:1sg that somebody me write:sbj.pst a letter but neg
tenía quién me escribiera.
had:1sg who me write:sbj.pst
'I wanted somebody to write me a letter but there was nobody who could write me a letter.'

c. Quería escribirle una carta a alguien, pero no tenía
wanted:1sg write:inf.cl a letter to somebody but neg had:1sg
a quién.
a who
'I wanted to write a letter to somebody but there was nobody I could write a letter to.'

d. ?Quería que alguien me escribiera una carta, pero no
wanted:1sg that somebody me write:sbj.pst a letter but neg
tenía quién.
had:1sg who
'I wanted somebody to write me a letter but there was nobody who could write me a letter.'

The full acceptability of the following examples demonstrates that there is nothing that prohibits or degrades sluicing with wh-subjects in general.

(73) a. Komuto iz nas nužno bilo vstretit' gost'a na stancii, no my tak i ne mogli rešit', komu.
somebody:dat of us needed was meet:inf guest at station but we so part neg could decide who:dat
'Somebody of us was supposed to meet the guest at the station but we couldn't decide who.'

b. Quería que alguien me escrbiera una carta, pero no
wanted:1sg that somebody me write:sbj.pst a letter but neg
podía decidir quién.
could:1sg decide:inf who
'I wanted that somebody writes me a letter but I couldn't decide who.'

The observed pattern is predicted by the present analysis of MECs in conjunction with standard assumptions about sluicing, namely that sluicing is an ellipsis of the sister of an A-bar fronted constituent.[35] Since wh-subjects in control MECs undergo A-movement rather than A-bar movement, sluicing is predicted to be impossible. The reason why the (d) examples are not completely unacceptable may be caused by the ambivalent nature of the wh-

[35] Sluicing was long thought to be possible only in wh-questions (see Merchant 2001 and the literature cited therein). Recently, however, sluicing has also been observed in focus-fronting constructions (see van Craenenbroeck and Lipták 2006). That sluicing is also possible in MECs was first observed by Rudin (1986) and the implicit assumption has been that it does not significantly differ from sluicing in wh-questions (for discussion see Šimík 2011: section 5.5).

fronted constituent: on the one hand, it fronts to an A-position, on the other, it functions as an operator semantically.

As noted by an anonymous reviewer, the fact that FOR′ is a coerced version of FOR makes the prediction that FOR′ has no existence independent of FOR. That in turn entails that there should be no language which has wh-subject MECs but has no PRO-subject MECs. Indeed, I am not aware of a language like that (see Šimík 2011: chapter 2 for a description of MECs in 16 languages).[36] On the other hand, it is imaginable that there is a language in which PRO-subject MECs exist in the absence of wh-subject MECs. That would be a case where the coercion from FOR to FOR′ is somehow blocked. I have not been able to identify such a language so far, though during data collection I have encountered speakers' hesitation in accepting wh-subject MECs (in particular in Catalan and Latvian). The hesitation could be suggestive of the increased effort required to derive wh-subject MECs. However, more research is needed before any conclusions can be drawn.

Before concluding, I would like to point out two problems for the present analysis. The first is an observation coming from Šimík (2011:257), where I show that wh-subjects exhibit animacy restrictions, just like non-wh-subjects (see section 5.2). This is illustrated in (74).

(74) #Bylo čemu osveščat' proliv.
was what:dat light:inf strait
'There was something that could light the strait.'

The present analysis seems to predict that no such restriction should be observed for wh-subjects. I have assumed that the animacy restriction stems from the benefactive Theta-role assigned by FOR, yet, wh-subjects are never thematic arguments of FOR/FOR′ in this analysis: they are arguments of the embedded predicate. Even though my analysis does not derive the animacy restriction on Russian wh-subjects, it could still be compatible with it. For example, if my conjecture that wh-subjects in Russian get licensed by exceptional Case marking by FOR′ is correct, then one could assume that it is in this way that the animacy restriction steps in. More particularly, it could be the dative-marking which is responsible for the animacy restriction in MECs, being the default overt proxy for the beneficiary Theta-role. This predicts that in

[36] The same anonymous reviewer also suggests an alternative analysis of wh-subject MECs, namely one in which there is no FOR/FOR′ whatsoever and where the MEC is selected by BE alone, all other things remaining equal. An analysis along these lines was proposed by Caponigro (2003) and is sketched in section 5.1 of the present paper. Admittedly, such analysis would be much simpler than the one proposed in this paper and would account for the fact that wh-subject MECs exhibit no obligatory control. However, such an analysis would face some serious problems, too. First of all, there would be no clear relation between PRO-subject and wh-subject MECs—the two types would be independent constructions and one would therefore expect to find wh-subject MECs independently of PRO-subject MECs, apparently contrary to fact. Another, more serious problem, would be the failure to account for the PRO-wh generalization. This is because once BE is allowed to select for wh-subject MECs directly, there would be no reason why wh-non-subject MECs should be excluded from being selected.

languages in which wh-subjects get Case-licensed independently of the FOR′ head no animacy restriction should apply. Czech shows that this is indeed the case. (The example is adapted from a corpus occurrence, where, indeed, burning down of something (some building) is treated as something profitable or desirable.) There is no animacy inference applied to *co* 'what' whatsoever, just like predicted.[37]

(75) Nemáme, co by shořelo.
neg.have:1pl what sbj.3 burn.down:pst.ptcp
'We don't have anything that could burn down.'

The second problem is that the topicalization of a wh-subject MEC, (76a), is just as bad as a topicalization of PRO-subject MEC, (76b) (repeated from section 5.2).

(76) a. *Komu eto sdelat' est'.
who:dat that do:inf be
'There's somebody who can do that.' (intended)
b. *Čemu poučit'sja est'.
what learn:inf be
'There is something that you can learn.' (intended)

In section 5.2 I argued that in order for a PRO-subject MEC to topicalize along with the fronted wh-word the FOR-head would have to move along and BE+FOR could not be lexicalized (under adjacency). In wh-subject MECs, on the other hand, the wh-word fronts to a position *below* FOR′ and hence, the wh-clause topicalization could in principle strand FOR′ in its base-position, allowing for the lexicalization of BE+FOR′ as a result. Like in the previous case, also here it is possible that an additional restriction is at play which prohibits the stranding of FOR′. Unfortunately, at this moment I do not have any ideas that could be tested empirically and therefore leave the problem open for future investigation.

6 Conclusion

This paper is a defense of the property analysis of control constituents, as opposed to the more standard proposition analysis. To the extent that the prop-

[37] See footnote 29 for evidence that animacy restrictions apply to non-wh-subjects in Czech control MECs. Unfortunately, one cannot test the same on Spanish, as inanimate wh-subjects are simply ungrammatical there.

(i) *Juan ya no tiene (lo) que asuste a los niños.
Juan already neg has (the) what scare:sbj.3sg a the children
'Juan no longer has anything that could scare the children.'

While it is unclear what makes subject *(lo) que* ungrammatical in Spanish MECs, from a cross-linguistic perspective it is not unusual for MECs to behave selectively with respect to which wh-words they tolerate; see Šimík (2011: section 2.2.2) for discussion.

erty analysis entails a semantic treatment of control, this paper also supports the latter. The argument comes from a novel observation from the domain of modal existential wh-constructions, which, being replicated fairly steadily across typologically very different languages, gives rise to a generalization, which I called the PRO-wh generalization. This generalization entails a very close relationship between obligatorily controlled PRO and wh-expressions. I argued for a particular explanation of this generalization, which is based on the conjunction of three, previously independently made assumptions: (i) a property-type construal of control constituents (ii) a property-type construal of wh-clauses, and (iii) a strict type-theoretical construal of control predicates. The last assumption was discussed at some length in subsection 5.3, where it was argued that a control predicate retains its type-theoretical construal even if it loses its control abilities due to a structurally motivated semantic coercion.

The challenge posed by the PRO-wh generalization as instantiated in languages like Spanish is, in fact, twofold. It does not only entail the intricate "switch" between obligatorily controlled PRO subjects and (non-controlled) wh-subjects, but also between the infinitive (used for PRO licensing) and the subjunctive (used exclusively for wh-subject licensing). The proposal I have put forth deals with this property clustering in a unified manner: by introducing the distinction between the applicative predicate FOR and its coerced version FOR′. FOR introduces the control relation and selects for an infinitival clause with a PRO in its left periphery; FOR′ obviates the control relation and selects for a subjunctive clause with a wh-subject in its left periphery. This unified treatment is in turn only possible thanks to the close connection between PRO and wh-subjects entailed by the present proposal: both types of expressions move towards the left periphery not only to be formally licensed but also to function as operators. The broader consequence of such a blend of the traditionally categorical A- and A-bar-distinction will have to await future investigation.

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