# On the locality of control and islands in German: exploring a hybrid theory of control[1]

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*Abstract*

Control theories typically range between two extreme positions as regards locality considerations: in the movement theory of control (MTC), the dependency between controller and controllee is extremely local (since they are related via movement), while in traditional PRO-based theories (which comprise a more heterogeneous class of analyses), controller and controllee typically occur in two different clauses. While a local implementation is indispensable in a phase-based syntax model, the fact that control into islands is licit seems to speak for a less local relationship.

This paper seeks to develop a local-derivational account of control located between the above-mentioned positions. This account assumes a moderate local relationship between controller and controllee. The basic idea is that the controllee starts out as an empty argument with unvalued $\varphi$-features which moves from phase edge to phase edge (in accordance with phase theory) until it can be licensed by the controller under Agree. In contrast to the MTC, the target position of controllee movement is not the controller position itself; thus, control into islands (including non-adjoined islands) can be derived more easily, since the control relation can already be established when the controller is at the edge of the highest phase inside the island and the controller is merged in the next higher phase. Hence, the theory is compatible with both phase theory and control into islands. By contrast, control into non-adjoined islands poses a serious problem for the MTC.

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## 1. Introduction

Since the development of the movement theory of control (MTC), which argues that the controllee in obligatory control structures is but a residue of A-movement (cf. Hornstein 1999 *et seq.*), a lively debate has been going on concerning the adequate handling of control (for alternative approaches, cf., for instance, Landau 2000, 2015, or Culicover & Jackendoff 2001, 2006). In this paper, I want to focus on the question of how local control dependencies actually are in view of the fact that, on the one hand, controller and controllee might be separated by an island, but on the other hand, phase theory demands a certain degree of locality. So the question arises as to how these two aspects can be unified in a theory of control.

The MTC expresses the most local configuration one can think of, since controller and controllee are related by movement and thus represented by copies of the same DP. In a non-movement theory of control, by contrast, controller and controllee belong to different clauses, and their relationship is therefore non-local. This means that we have a problem: according to the phase model, in which a local-derivational view of syntax has been adopted, the accessible domain is restricted by the Phase Impenetrability Condition (PIC; cf. Chomsky 2000 *et seq.*).[2] As a consequence, apparent non-local dependencies must be reanalyzed in a way that allows a reconciliation with phase theory. In the MTC, this result seems to be produced as a matter of course; however, as the discussion in section 2.1 will show, in its current form, the MTC is not really compatible with phase theory either (cf. Drummond & Hornstein 2014).

[2] I follow the standard definitions in (i)-(iv). (As to the assumption that DPs are phases, cf., for instance, McCloskey 2000; Svenonius 2004.)

(i) *Phase Impenetrability Condition* (PIC; cf. Chomsky 2000 *et seq.*):
The domain of a head X of a phase XP is not accessible to operations outside XP; only X and its edge are accessible to such operations.

(ii) The *domain* of a head corresponds to its c-command domain.

(iii) The *edge* of a head X is the residue outside X′; it comprises specifiers and elements adjoined to XP.

(iv) CPs and vPs are phases (and maybe DPs).

Moreover, if we consider islands to be serious restrictions on syntactic movement, the idea that movement takes place all the way up to the controller's position might be too radical given that (obligatory) control is possible into (certain types of) islands. In fact, proponents of the MTC have proposed some strategies to handle control into adjuncts in particular, but, crucially, these cannot be extended to non-adjoined islands. However, as section 4 reveals, control into islands of this type exists as well. An alternative is clearly needed.

This paper will therefore explore a hybrid theory of control (HTC) which will combine aspects of both the MTC and non-movement approaches to control. It will assume that there is movement (to model control in terms of a local relationship and thereby make it compatible with phase theory), but not all the way up to the controller's position (to keep up the idea of strict islandhood). The basic idea is that the controllee is merged as an empty argument (EA) with unvalued $\varphi$-features, which then probes upwards to find a suitable goal (= the controller) that values EA's $\varphi$-features under Agree. Since EA is referentially defective, this results in index sharing, which is interpreted as binding at the CI-interface. Since the search domain of EA is restricted by the PIC, EA has to move from phase edge to phase edge until it can be licensed; however, in contrast to the predictions of the MTC, it can stop moving when it is at the edge of the phase preceding the phase in which the controller enters the derivation. Hence, licensing of control and the availability of movement are dissociated – this means that even if EA is inside an island, it can be licensed by a controller as long as EA is at the edge of the island and thus still accessible when the controller enters the derivation.[3] So we can conclude that the HTC takes control dependencies to be local in a moderate way, meaning that while the HTC follows phase theory, it at the same time accepts that control dependencies might be disrupted by island boundaries.

Although the HTC contrasts with both the MTC and non-movement theories of control, the focus of this paper is on comparison with the MTC. Apart from the fact that PRO-based theories comprise a less homogeneous class of analyses, one basic insight of the paper is that control into non-adjoined islands is problematic for the MTC in particular.

The paper is organized as follows: in section 2, the compatibility of phase theory and previous analyses of control will be discussed. Section 3 focuses on control into adjuncts. First, the

[3] This central underlying idea that syntactic licensing requires movement from phase edge to phase edge until the appropriate licensing configuration can be established has already been proposed for binding relations in Fischer (2004, 2006).

MTC account is reviewed, before extraposition data from Icelandic and German are introduced and discussed in the light of the MTC. Section 4 then turns to those cases that are fatal to the MTC – control into non-adjoined islands. Here, the paper focuses on data from German. Section 5 introduces the alternative account proposed in this paper, the hybrid theory of control (HTC): first, the underlying mechanism will be discussed, before concrete examples and further consequences of the proposal are illuminated. Section 6 then returns to control into islands and shows how this is captured under the HTC, including control into non-adjoined islands. Crucially, we will see that, while this is barred by the MTC, control relations of this sort can easily be derived by the HTC. Section 7 deals with non-obligatory control and the HTC. Section 8 contains a brief conclusion.

## 2. Locality and control

Let us start with a brief discussion on the locality of standard control dependencies. (1-a) shows a typical subject control sentence in English: the matrix subject *John* controls the covert subject of the embedded clause (represented as PRO for expository reasons), which is indicated by coindexation. In general, the typical control scheme looks like the one illustrated in (1-b): the controller is part of the matrix clause and the controllee functions as the subject of the complement clause.

(1) a. $\text{John}_1$ tries $[_{\text{CP}}$ $[_{\text{TP}}$ $\text{PRO}_1$ to win]].

b. $[_{matr.clause}$ controller ... $[_{emb.clause}$ controllee ... ]]

From a phase-theoretic point of view, this is problematic, because it implies that controller and controllee are separated from each other by a phase boundary (the embedded CP) and thus occur in different phases.[4] Since the controllee does not occur at the edge of the lower CP but rather in SpecT, the canonical subject position, it is no longer accessible when the controller enters the derivation in the next higher phase (cf. the illustration in (2), in which crossed out material represents those parts of the derivation that have already become inaccessible). So we can conclude that, following the standard view, control involves a dependency that is not readily compatible with phase theory.

[4]Note that the point also holds if it is assumed that not all control infinitives take CP complements (as suggested in Wurmbrand's work on restructuring; cf. Wurmbrand 2001 *et seq.*).

(2) [$_{vP}$ controller ... [$_{CP}$ ~~[$_{TP}$ controllee ... ]~~]]

### 2.1 Phase theory and non-movement theories of control

Although focus here is on the comparison with the MTC, let us briefly take a look at traditional PRO-based theories of control. Here, the locality problem is relatively obvious. Without further assumptions, the distance between controller and controllee (= PRO) is too large to be compatible with phase theory, because – in order for control to work – it is obviously necessary for us to establish a relationship between controller and controllee in order to derive the interpretation of the latter. Hence, it is crucial that both elements are accessible at the same time at least some point in the syntactic derivation.[5] The standard view, however, is that PRO is located in the embedded SpecT position, which means that it is no longer accessible when the matrix clause is derived (cf. also (2)).

Of course, considerations like these were not an issue when the first PRO-based theories were proposed in the 1980s. However, since the development of phase theory, little attention has been devoted to its compatibility with control theory. In fact, two PRO-based theories which have adopted the phase model at an underlying level are those by Landau (2000, 2015) (although locality considerations also do not play a central role there). The theory proposed in Landau (2000 *et seq.*) involves an Agree relation between a functional head in the matrix clause and PRO in the embedded SpecT position, for which he originally proposed a relaxation of the PIC in order to make it work (this was in connection with his analysis of exhaustive control); cf. Landau (2000: 69; 2004: 843, fn. 26). In Landau (2015), he adopted an alternative view: he commented on the Agree model and suggested that "OC complements [...] are weak phases" (Landau 2015: 12). As a consequence, PRO is still accessible inside the infinitival complement clause even if it is not at its edge.

In his two-tiered theory of control, Landau (2015) proposes movement of PRO to the edge of the embedded clause (= SpecFin in his model), which is thus compatible with the PIC (although this is not the driving force behind the assumed movement). The underlying idea is that exhaustive control (EC) is derived via a predication relation: PRO, which is assumed

[5]To be precise, it need not necessarily be PRO and the controller itself; it could also be an element mediating between the two – but then the problem becomes another, as PRO and this element need to be accessible at the same time at some point in the derivation.

to be a minimal pronoun with the features {D, $u\varphi$}, moves to SpecFin (= the edge of the infinitival clause), since the predicative head Fin is looking for a nominal operator (i.e., [*u*D] on Fin attracts PRO). As a result, PRO-movement yields an open predicate, which is applied to the controlling DP and thereby saturated.

So in contrast to Landau (2000 *et seq.*), Landau (2015) also assumes movement of PRO to the phase edge, an assumption for which I will also argue below. One major difference between his model and the basic assumptions of the approach developed here concerns the different impact of partial control (PC).[6] While Landau takes the EC-PC split to be the source of a distinct syntactic treatment, I do not assume that this difference necessarily gives rise to a different implementation in the syntactic component (cf. also Pitteroff *et al.* 2016).[7] On the other hand, the central data that lead to the postulation of the hybrid theory of control (and which will be introduced in section 3 and 4) are not discussed in Landau (2015); so the foci of the two approaches differ, and similarities in the technical implementation have developed independently. A more thorough discussion of PC, however, would go beyond the scope of this paper. The focus here will be control into islands and the locality of control dependencies. Therefore we now turn to the MTC and its compatibility with phase theory.

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[6]If controller and controllee are referentially identical, the result is exhaustive control; cf. (i-a). In examples like (i-b), by contrast, the controller is just a proper subpart of the set of people denoted by the controllee – this is partial control.

(i) a. *Exhaustive control (EC):*
John$_1$ tries PRO$_1$ to win.
b. *Partial control (PC):*
The chair$_1$ preferred PRO$_{1+}$ to gather at 6. (cf. Landau 2000: 5)

[7]Following Landau (2000 *et seq.*, 2015), whether we end up with PC or EC depends on the matrix predicate. By contrast, Boeckx, Hornstein & Nunes (2010), Sheehan (2014), Pitteroff *et al.* (2016) and others have argued that the type of embedded predicate also plays a role; cf. the German example below, which allows a PC-reading and involves an EC matrix predicate plus an embedded predicate which licenses a comitative (grammaticality judgements are based on an experimental investigation of PC in German; cf. Pitteroff *et al.* 2016).

(i) Karl$_1$ versucht, PRO$_{1+}$ sich bis Weihnachten wieder zu versöhnen.
Karl tries REFL until Christmas again to make.up
'Karl tries to become reconciled again until Christmas.' (cf. Pitteroff *et al.* 2016: 7)

## 2.2 Phase theory and the MTC

Since the basic assumption of the MTC is that controller and controllee are related via movement, this puts the locality question in a different light. If the MTC is right, the control relation does not have to be established once the controller is merged into the derivation – instead, the only thing that must be guaranteed is that movement is an available option. In other words, the potential problem is not that the distance between controller and controllee might be too large to ultimately licence control; that control involves a non-local dependency instead implies that movement has to be split into available movement steps, and the potential danger is that the designated controller position might not be accessible via movement. To stick with example (1-a), consider the structures in (3). (3-a) displays the basic idea that the embedded subject is a copy of *John*, left behind by movement. Since the underlying idea of phase theory is that only material can be moved which is still accessible, and that only material in the previous phase head or phase edge is in the accessible domain (cf. footnote 2), the movement indicated in (3-a) is only compatible with the PIC if it proceeds via the edge of the CP phase, as indicated in (3-b).

(3) a. John tries [$_{\text{CP}}$ <John> to win].

b. [$_{\text{vP}}$ John tries [$_{\text{CP}}$ <John> ~~[$_{\text{TP}}$ <John> to [$_{\text{vP}}$ <John> win]~~]].

A movement-based approach of control is therefore compatible in principle with phase theory as long as it is assumed that the non-local movement relation between controller and controllee is broken up into smaller movement steps which proceed from phase edge to phase edge.[8] So far, so good; up to this point the MTC seems to be ideally suited to a local derivational approach to control.

However, as Drummond & Hornstein (2014) have pointed out, successive-cyclic movement from phase edge to phase edge undermines the MTC-based account of why control into adjuncts is possible, even though adjuncts are normally islands for movement; cf. (4-a) vs. (4-b).

(4) a. John laughed at Mary [without <John> falling over].

b. *Who did John laugh at Bill [before Mary spoke to <who>]?

[8] The idea to split non-local movement relations into smaller movement steps is of course well-known, the most renowned example probably being *wh*-movement.

(cf. Drummond & Hornstein 2014: 450)

At first sight, the difference in grammaticality is unexpected – if control is movement, why should control into the adjunct in (4-a) be grammatical while *wh*-movement out of the adjunct in (4-b) is not? After all, both constructions involve movement out of an island. Let us first consider the MTC-analysis of structures like (4-a) before turning to the MTC solution for the puzzle in (4).

The MTC's analysis of control into adjuncts relies on sideward movement. The underlying idea is that the controller DP (*John* in (4-a)) is moved out of the adjunct into the matrix clause while adjunct and matrix clause are still unconnected – that is, according to the MTC, control into adjuncts relies on an interarboreal operation before adjunction takes place. The concrete derivation of (4-a) thus proceeds as follows: first, *John* is merged into the adjunct, which in the beginning is not yet connected to the matrix clause (cf. (5-a)). Next, sideward movement takes place, meaning that *John* is copied into Specv of the matrix clause (cf. (5-b)), and only then is the adjunct merged into the matrix clause (cf. (5-c)).

(5) a. *"John" is merged into workspace 2:*
workspace 1: [$_{\text{vP}}$ laughed at Mary]
workspace 2: [$_{\text{PP}}$ without **John** falling over]
b. *Sideward movement of "John" from workspace 2 to workspace 1:*
workspace 1: [$_{\text{vP}}$ **John** laughed at Mary]
workspace 2: [$_{\text{PP}}$ without <John> falling over]
c. *Workspace 2 is merged as an adjunct in workspace 1:*
[$_{\text{vP}}$ [$_{\text{vP}}$ John laughed at Mary] [$_{\text{PP}}$ without <John> falling over]]
(cf. Drummond & Hornstein 2014: 450)

In other words, the MTC argumentation allows us to distinguish between licit movement out of adjuncts and illicit movement out of adjuncts by considering the moment of extraction: if it occurs *before* the adjunct is connected to the workspace containing the landing site of movement, it is licit (i.e., we have an instance of sideward movement, and when movement occurs we do not yet have an adjoined structure, strictly speaking; cf. (5-b)); if extraction occurs *afterwards* (i.e., when the adjunct has already been merged into the main derivation), the result is ungrammatical, yielding a standard CED effect.[9]

Following Drummond & Hornstein (2014), it is exactly this difference that distinguishes the two sentences in (4). (4-a) can be derived via sideward movement, as the adjunction site is not below the target of sideward movement; cf. (5). When deriving (4-b), however, the target position of *wh*-movement is SpecC, i.e. the adjunction site is below this position. Therefore, the only available order of operations is (i) concatenating adjunct and main clause and then (ii) extracting *who* out of the adjunct. This follows automatically from the Extension Condition (cf. Chomsky 1993), according to which syntactic operations have to extend the root. However, this implies at the same time that (4-b) violates the CED and is therefore ungrammatical.

Note that in order to derive the ungrammaticality of (4-b), it is absolutely essential that *wh*-movement targets a position above the adjunction site. As regards the site of adjunction, Drummond & Hornstein (2014) point out that "the relevant class of adjuncts must adjoin below C" (p. 451); so if *wh*-movement directly targets SpecC, the ungrammaticality of (4-b) follows. However, any intermediate landing site for *wh*-phrases below SpecC would undermine the finding of (4-b)'s ungrammaticality. Therefore, the assumption that *wh*-phrases move successive-cyclically via the phase edge Specv (as required by the PIC) cannot be maintained by the MTC: if the *wh*-phrase stopped in Specv (a position below the adjunction site), sideward movement could apply before adjunction takes place, and sentence (4-b) could ultimately be (wrongly) predicted to be grammatical. The only conclusion, therefore, is that the MTC is, after all, incompatible with phase theory.

## 3. Obligatory control into adjuncts and related scenarios

### 3.1 Three control scenarios and the MTC

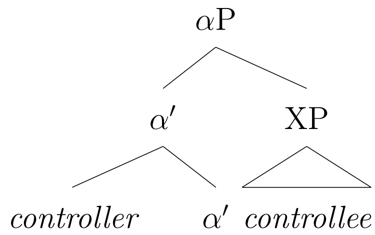
The argumentation by Drummond & Hornstein (2014) outlined above provides one important insight: for the MTC, whether an adjunct is created by external merge or by internal merge (i.e. by movement) is of crucial importance.

The external merge scenario covers examples such as (6) (cf. also (4-a) from above). The general underlying scheme is illustrated in (7).

[9]Cf. Huang (1982), who unifies the Subject Condition (according to which extraction out of subjects is not possible) and the Adjunct Condition (which claims that extraction out of adjuncts is not possible) under the Condition on Extraction Domains (CED).

(6) John$_1$ heard Mary$_2$ [without PRO$_{1/*2}$ entering the room]. (cf. Hornstein 1999: 88)

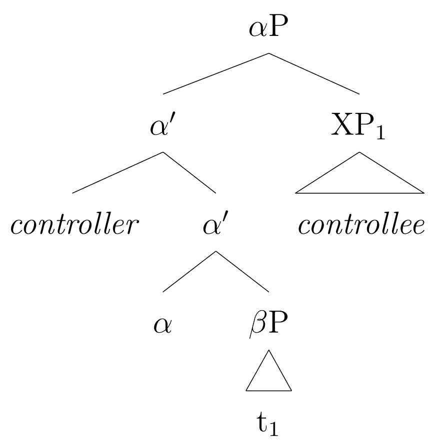
(7) *scenario 1: XP adjunct created by external merge*




As discussed in section 2.2, the MTC can account for data like these by invoking sideward movement: before XP is concatenated with a projection of $\alpha$, the DP occupying the controllee position can move sideways to the controller position and thereby establish the control relation.[10]

The second scenario described above, which concerns adjuncts created by movement (= internal merge), is illustrated in (8).

(8) *scenario 2: XP adjunct created by movement*



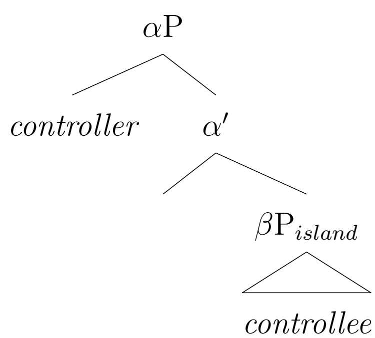

The crucial difference between (7) and (8) is that in the latter case concatenation of XP with the main derivation takes place much earlier, namely inside $\beta$P. Hence, sideward movement is blocked: at the point in the derivation when XP is still unconnected to the rest (before $\beta$P is completed), the target position of the required movement (= Spec$\alpha$, the controller position) is not yet part of the derivation. In addition, movement out of XP at the point represented in

[10] Landau (2003) and others have questioned whether sideward movement should be allowed or not (cf. Landau's 2003 objections against it), but this debate will be ignored here. What is crucial for us is that the MTC has a means to derive the scenario illustrated in (7).

(8) yields a classical CED effect. There is, however, a third possibility to allow for movement from the controllee to the controller position: if movement takes place after XP is merged into the derivation but before it is adjoined to $\alpha$P (in (8), this would correspond to movement out of the triangle to Spec$\alpha$, before XP moves to the adjoined position). Note, however, that this option is only available if $\beta$P itself is not an island for extraction.

This leads to a third potential scenario, the one illustrated in (9). It does not involve control into an adjunct but rather control into a non-adjoined island. For the MTC, such a structure cannot exist (remember that we are talking about obligatory control): it is impossible to extract the controllee out of $\beta$P *before* the latter is merged into the structure and becomes an island, because the landing site is not yet available at this point; but once it is concatenated, extraction out of $\beta$P is blocked because of its island status.

(9) *scenario 3: control into non-adjoined islands*




The question now is: do control scenarios of type (8) and (9) exist? As will be shown in the subsequent sections, the answer is yes.

As to (8), we can draw the following conclusion: if extraposition is taken to be movement, control into extraposed clauses has exactly the underlying structure illustrated in (8). As a matter of fact, there has been a great deal of discussion recently in the literature on object extraposition in Icelandic and the MTC (cf. Wood 2012, 2014), which involves data with $\beta$P (following the labelling in (8)) being an island. This is the focus of the next section; it will concentrate not only on Icelandic but will also examine data from German. In section 3.3 we turn to a potential MTC answer (in view of the fact that extraposition can be treated in different ways). Section 4 will, however, reveal that, independent of extraposition, control scenarios of type (9) do exist, and this means that they contradict the MTC.

### 3.2 Object extraposition in Icelandic and German

The set of data from Icelandic considered here is taken from Wood (2012), who made this observation: if we look at sentences with an extraposed infinitival clause, an asymmetry arises between movement and control. While control across the sentential pronoun *það* is grammatical (cf. (10)), this pronoun blocks movement of all sorts; i.e., both standard A′- and A-movement across *það* is impossible, as illustrated in (11) (involving topicalization) and (12) (involving raising).

(10) Þeir$_1$ ákváðu (það) að PRO$_1$ heimsækja Ólaf.
they.MASC.NOM decided (it.ACC) to visit Olaf.ACC
'They decided to visit Olaf.' (cf. Wood 2012: 323)

(11) Ólaf$_2$ ákváðu þeir$_1$ (*það) að PRO$_1$ heimsækja t$_2$.
Ólaf.ACC decided they.MASC.NOM (*it.ACC) to visit
'Olaf, they decided to visit.' (cf. Wood 2012: 323)

(12) Hún$_1$ virðist (*það) t$_1$ elska Svein.
she.NOM appeared (*it.ACC) love Sveinn.ACC
'She appeared to love Sveinn.' (cf. Wood 2012: 324)

Let us now take a look at similar data from the literature on German. First, we can observe that, in German, we also find sentential pronouns of the *það*-type. As has been noted before (cf., for instance, Webelhuth 1992: 101f.; Müller 1995: 230f.), they also occur optionally and block CP topicalization; cf. (13).

(13) a. Ich bereue (es), dass Maria wegfährt.
I regret (it) that Maria goes away
'I regret that Maria is going away.'

b. Dass Maria wegfährt bereue ich (*es).
that Maria goes away regret I (it)
'I regret that Maria is going away.' (cf. Webelhuth 1992: 101)

While (13) involves only finite complement clauses, (14)-(16) show that the pattern can also be extended to non-finite complement clauses and topicalization involving extraction out of the embedded CP: as in Icelandic, the latter is illicit (cf. (14-b)-(16-b)), whereas control across the intervening pronoun is not blocked (cf. (14-a)-(16-a)).[11]

[11] Considering their productivity, these data are not merely a side issue. Note, moreover, that the contrasts in

(14) a. Er$_1$ hat (es) bereut/bedauert, PRO$_1$ Maria verletzt zu haben.
he has (it) regretted Maria hurt to have
'He regretted having hurt Maria.'

b. Maria$_2$ hat er$_1$ (*es) bereut/bedauert PRO$_1$ t$_2$ verletzt zu haben.
Maria has he (it) regretted hurt to have
'He regretted having hurt Maria.'

(15) a. Er$_1$ bittet dich (darum), PRO$_1$ die Unterlagen morgen mitzubringen.
he asks you (for it) the documents tomorrow with.to.bring
'He is asking you to bring the documents tomorrow.'

b. Die Unterlagen$_2$ bittet er$_1$ dich (*darum), PRO$_1$ t$_2$ morgen mitzubringen.
the documents asks he you (for it) tomorrow with.to.bring
'He is asking you to bring the documents tomorrow.' (cf. Bierwisch 1963: 135)

(16) a. Lasse$_1$ hatte (darauf) gehofft, PRO$_1$ dieses Hockeyspiel zu gewinnen.
Lasse had (on it) hoped this hockey match to win
'Lasse had hoped to win this hockey match.'

b. Dieses Hockeyspiel$_2$ hatte Lasse$_1$ (*darauf) gehofft PRO$_1$ t$_2$ zu gewinnen.
this hockey match had Lasse (on it) hoped to win
'Lasse had hoped to win this hockey match.'

In fact, the observed intervention effect does not only occur with topicalization; other instances

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grammaticality are very clear, and that all examples in this section involve obligatory control (OC); cf. (i) and (ii), which illustrate some standard tests. (i) shows that controller and controllee are obligatorily coreferent; (ii) illustrates that we get only a sloppy reading of PRO under ellipsis: the only available reading is the one according to which Peter regrets having hurt Maria.

(i) a. Peter$_1$ hat (es) bereut [PRO$_{1/*2}$ Maria verletzt zu haben].
Peter has (it) regretted Maria hurt to have
'Peter regretted having hurt Maria.'

b. Maria$_3$ hat Peter$_1$ (*es) bereut/bedauert PRO$_{1/*2}$ t$_3$ verletzt zu haben.
Maria has Peter (it) regretted hurt to have
'Peter regretted having hurt Maria.'

(ii) a. Peter$_1$ hat (es) bereut [PRO$_1$ Maria verletzt zu haben], und Hans auch.
Peter has (it) regretted Maria hurt to have and Hans too
'Peter regretted having hurt Maria, and Hans did too.'

b. Peter$_1$ hat (es) bereut [PRO$_1$ Maria verletzt zu haben], und Hans$_2$ hat (es) bereut
Peter has (it) regretted Maria hurt to have and Hans has (it) regretted
[PRO$_{*1/2}$ Maria verletzt zu haben].
Maria hurt to have
→ *only sloppy reading available (= OC property)*

of A′-movement are equally affected, as example (17) involving *wh*-movement shows.[12] The same holds for A-movement: as in Icelandic, the sentential pronoun is ruled out in raising constructions (cf. the ambiguous verb *beginnen* ('begin'), which occurs in a raising construction in (18) and in a control construction in (19)).

(17) Wen$_2$ hat er$_1$ (*es) bereut, PRO$_1$ t$_2$ verletzt zu haben?
who has he (it) regretted hurt to have
'Who did he regret having hurt?'

(18) Es$_1$ begann (*damit), t$_1$ heftig zu regnen.
it began (with it) heavily to rain
'It began to rain heavily.'

(19) Er$_1$ begann (damit), PRO$_1$ Briefe zu schreiben.
he began (with it) letters to write
'He began to write letters.'

To sum up, the crux of the argument is the following: these extraction data allow control in configurations out of which neither A- nor A′-movement is possible. This is unexpected if control is movement, because it suggests that the type of movement involved in control involves locality restrictions, which are less strict than those regulating other types of movement. This contradicts the underlying idea of the MTC that control involves A-movement, the most local type of movement.[13] So let us see whether there is some way out for the MTC to account for this asymmetry.

### 3.3 Object extraposition in Germanic and the MTC

Of course, the analysis of control into an extraposed clause depends on the theory of extraposition one would like to adopt (for some overview and more references, cf., for instance,

[12]Similar examples have been reported from Dutch as well. As Bennis (1986: 104) points out, "extraction from sentential complements is excluded if a corresponding *het* is present".

(i) Wat betreurde jij (*het) dat hij gezegd had?
what regretted you (it) that he said had
'You regretted that he had said what?' (cf. Bennis 1986: 104)

[13]Of course, the MTC does not claim that control and raising are identical (they differ insofar as the latter involves an additional $\theta$-role). So the lack of similarity does not yet mean anything; the question, however, is whether the control data under consideration can be derived. To this end, cf. the next two sections.

Inaba 2007; Webelhuth *et al.* 2013). In principle, there are three general strategies available: (i) a movement-based analysis, according to which the extraposed XP is considered to move to its surface position (cf., among others, Bierwisch 1963; Reinhart 1980; Baltin 1982; Büring & Hartmann 1995, 1997; Müller 1995, 1997); (ii) a base-generation approach, according to which the extraposed XP is considered to be base-generated in its surface position (cf., for instance, Koster 1978; Webelhuth 1992; Culicover & Rochemont 1990; Haider 1997); or (iii) a PF approach, according to which extraposition is not a syntactic phenomenon; i.e., syntactically, the extraposed XP never occurs in the extraposed position. Instead, it is simply spelled out there (cf., for instance, Truckenbrodt 1995; Göbbel 2007).[14]

Strategy (i) has been dominant for quite some time. So let us start with this view and consider the Germanic data from the previous section against this background. As an illustration, let us take a look at (20), repeated from (14-a).

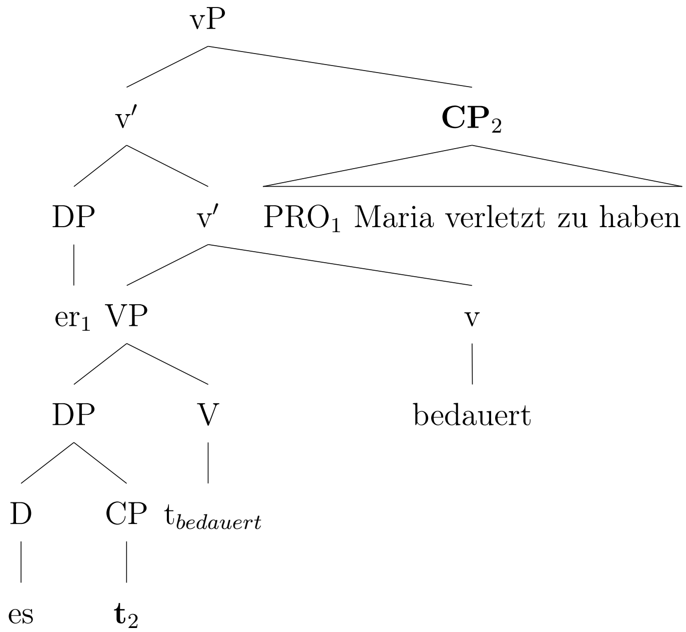
(20) $\text{Er}_1$ hat (es) bereut/bedauert, $\text{PRO}_1$ Maria verletzt zu haben.
he has (it) regretted Maria hurt to have
'He regretted having hurt Maria.'

As far as the underlying stucture of examples with a sentential pronoun is concerned, I assume (following Bennis 1986; Vikner 1995; Müller 1995; and others) that the sentential pronoun is referential and occupies the complement position of the verb; the embedded CP is base-generated in the complement position of the pronoun and then undergoes extraposition, which is taken to be the result of rightward movement adjoining the extraposed material to vP;[15] cf. (21) as an illustration.

[14] Combinations of the above-mentioned strategies have also been proposed, the underlying assumption being that there are different types of extraposition which should be analyzed differently. A common distinction that has been argued to be relevant is the argument-adjunct distinction (cf., for instance, Fox & Nissenbaum 1999; Kiss 2005; Inaba 2007; Hunter & Frank 2014.)

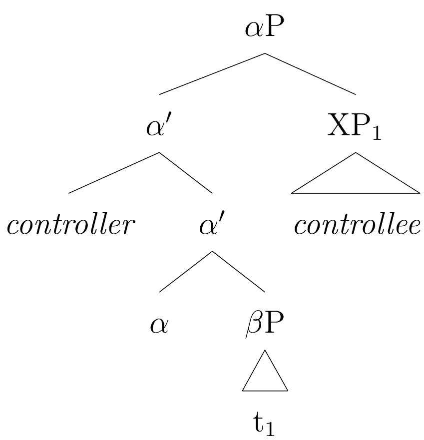
[15] This is the predominant view in movement analyses of extraposition: the extraposed XP is right-adjoined to vP or TP.

(21)




As a comparison with (8) (repeated in (22)) reveals, this structure corresponds to scenario 2 (discussed above).[16]

(22) *scenario 2: XP adjunct created by movement*




In order to derive (21), the MTC would now have to find a way to extract the controllee out of the embedded CP. In principle, there are two potential orderings of the two operations: (i) extraposition could precede extraction of the controller, or (ii) extraposition could follow extraction of the controller. As outlined in section 3.1, option (i) does not work, because it would yield a violation of the CED (cf. also Drummond & Hornstein 2014: 452).

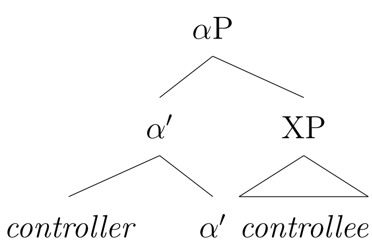
So what about the alternative ordering of operations, i.e., extracting the controller before

[16]Note that German is an OV-language; in (8) a head-initial structure is represented.

adjoining the CP to vP (via rightward remnant movement)? Although Drummond & Hornstein (2014: 452) claim that this is an option, Wood (2014) argues at length that extraction is condemned to failure from the start, since the presence of the sentential pronoun immediately turns the clause containing the controllee into an island (cf. (23)). This observation has been made before by Thráinsson (1979), who "argued in detail that the pronoun underlyingly forms a constituent with the clause, and that this constituent is an island " (Wood 2014: 4).[17] So it has to be concluded that this derivation does not work either, since we have an example in which $\beta$P in (22) is an island (= DP in (21)).[18]

But what about the alternative approaches to extraposition, the base generation approach and the PF approach? According to the base generation approach, the adjunct is not created by internal merge but rather by external merge. As a consequence, the underlying structure would correspond not to (22) but to scenario 1 (cf. (7), repeated in (23)). Hence, controller and controllee position could in fact be related via sideward movement (cf. section 3.1), and the sentential pronoun would not play a role at all (since it would not intervene, structurally speaking). So we can conclude that if extraposed clauses are assumed to be base-generated in the adjoined position, the MTC can account for control into them.[19]

(23) *scenario 1: XP adjunct created by external merge*




By contrast, if the extraposed material remains in the complement position, syntactically speak-

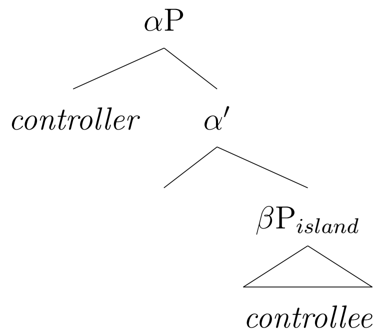
[17] Thráinsson (1979) uses constituency tests such as topicalization, left-dislocation, it-clefting, passivization, and right-node raising to show that a sentential pronoun and the following clause form an underlying complex DP; cf. also Wood (2014: 4ff.). For the German data, it will be shown more explicitly in section 4 that the underlying CP is an island for extraction.

[18] Note, however, that this would be the underlying derivation for the grammatical versions of (14-b)-(16-b) without an intervening pronoun (i.e. here extraction could take place prior to extraposition); this is possible because without a sentential pronoun, no island is involved (i.e., in terms of (22), $\beta$P is not an island in these cases).

[19] In fact, Ott (2014) proposes a further analysis of these object extraposition data based on right-dislocation. It is also compatible with the MTC.

ing, and is only pronounced in the extraposed position, as assumed by PF analyses, the underlying structure would neither correspond to scenario 1 nor 2 – instead, it would be an example of scenario 3; cf. (9), repeated in (24).

(24) *scenario 3: control into non-adjoined islands*




As outlined before in section 3.1, this scenario cannot be accounted for by the MTC; therefore the conclusion must be that the MTC is not compatible with a PF approach to extraposition.

## 4. Control into non-adjoined islands

Of course, there is no need to assume a PF approach to extraposition, but this section will show that there are extraposition-independent control data which exactly involve the underlying structure illustrated in (24). Recall that, following the MTC, this scenario is predicted to be ungrammatical, since it is impossible to extract the controllee out of $\beta$P before the latter is merged into the structure (at this point, the landing site is not yet available); afterwards $\beta$P's island status blocks extraction. The relevant set of scenario 3-type data involves non-extraposed examples with CP complements of sentential proforms and standard complex NP constraint configurations, all of which block movement but allow control into their CP complement (against the predicitions by the MTC).

As Wood (2014) has already pointed out for Icelandic, "[t]he presence of the [sentential] pronoun does not force extraposition, and clauses occurring with the pronoun are islands for extraction whether extraposition takes place or not" (Wood 2014: 4). In the following, the focus will be on the German data. Here, the situation is similar: although not all examples are equally well-formed if extraposition does not take place, extraposition is by no means always obligatory, as the broad range of examples shows.[20] Note, moreover, that, due to the

[20] Different factors seem to influence the acceptability of the non-extraposed examples. Haider, who also lists

underlying OV-structure in German, it is easy to see whether extraposition has taken place or not. Therefore, the fact that the underlying structure in the following examples is of type (24) is clear. What these data illustrate is that control into islands does not hinge on extraposition: (25-a)-(27-a) are grammatical even despite the fact that extraposition does not take place, and the corresponding (b)- and (c)-examples confirm the islandhood of the underlying $\beta$P, since both *wh*-movement and topicalization are blocked.

(25) a. Peter$_1$ hatte [$_{\beta P}$ darauf, [PRO$_1$ dieses Spiel zu gewinnen]], sein Leben lang gehofft.
Peter had on it this match to win his life long hoped
'Peter had hoped to win this match all his life.'

b. *Welches Spiel$_2$ hatte Peter$_1$ [$_{\beta P}$ darauf [PRO$_1$ t$_2$ zu gewinnen]] sein Leben lang gehofft?
which match had Peter on it to win his life long hoped
'Peter had hoped to win which match all his life?'

c. *Dieses Spiel$_2$ hatte Peter$_1$ [$_{\beta P}$ darauf [PRO$_1$ t$_2$ zu gewinnen]] sein Leben lang gehofft.
this match had Peter on it to win his life long hoped
'This match Peter had hoped to win all his life.'

(26) a. Hans$_1$ hat [$_{\beta P}$ den Gedanken (daran), [PRO$_1$ sie zu besuchen]], wieder
Hans has the thought (at it) her to visit again

---

some German examples of this type, points out "[they] may sound somewhat clumsy to an informant because of their complexity" (Haider 2015: fn.9) (and due to the fact that the extraposed alternative is also available and is easier to process); cf. also Hartmann (2013) regarding prosodic influences on extraposition possibilities. In fact, slow and careful articulation in conjunction with the heaviness of the material following the CP seem to facilitate acceptability. So, for instance, the clumsiness of example (i-a) seems to reduce in (i-b).

(i) a. Man hat ihn [davon, [das Land zu verlassen]], abgehalten.
one has him from it the country to leave prevented
'He was prevented from leaving the country.' (cf. Haider 2015: 6)

b. Man hat ihn [davon, [das Land zu verlassen]], auf hinterhältige Weise abgehalten.
one has him from it the country to leave on perfidious way prevented
'In a perfidious way, he was prevented from leaving the country.'

In any case, the crucial point is that we do find grammatical non-extraposed examples (cf. also Kiss 2005: fn. 6), and these have to be derived.

verworfen.
discarded
'Hans again discarded the thought of visiting her.'

b. *Wen$_2$ hat Hans$_1$ [$_{\beta P}$ den Gedanken (daran) [PRO$_1$ t$_2$ zu besuchen]] wieder
who has Hans the thought (at it) to visit again
verworfen?
discarded
'Hans again discarded the thought of visiting whom?'

c. *Maria$_2$ hat Hans$_1$ [$_{\beta P}$ den Gedanken (daran) [PRO$_1$ t$_2$ zu besuchen]] wieder
Mary has Hans the thought (at it) to visit again
verworfen.
discarded
'Hans again discarded the thought of visiting Mary.'

(27) a. Mathis$_1$ hat [$_{\beta P}$ das Angebot, [PRO$_1$ Hockey mitzuspielen]], natürlich gerne
Mathis has the offer hockey with.to.play of course gladly
angenommen.
accepted
'Of course, Mathis accepted gladly the offer to join the hockey game.'

b. *Was$_2$ hat Mathis$_1$ [$_{\beta P}$ das Angebot [PRO$_1$ t$_2$ mitzuspielen]] natürlich gerne
what has Mathis the offer with.to.play of course gladly
angenommen?
accepted
'Mathis accepted gladly the offer to join in what?'

c. *Hockey$_2$ hat Mathis$_1$ [$_{\beta P}$ das Angebot [PRO$_1$ t$_2$ mitzuspielen]] natürlich gerne
hockey has Mathis the offer with.to.play of course gladly
angenommen.
accepted
'Of course, Mathis accepted gladly the offer to join the hockey game.'

Note that these are all clear instances of obligatory control, since PRO gets only a sloppy interpretation under ellipsis (cf. (28)-(30)). The meaning of (28-a)-(30-a) is represented in (28-b)-(30-b), and as the indexation shows, a sloppy reading of PRO is obligatory – hence, this is obligatory control.

(28) a. Peter$_1$ hatte [darauf, [PRO$_1$ dieses Spiel zu gewinnen]], sein Leben lang gehofft,
Peter had on it this match to win his life long hoped
und Tom auch.
and Tom too
'Peter had hoped to win this match all his life, and Tom had too.'

b. Peter$_1$ hatte [darauf, [PRO$_1$ dieses Spiel zu gewinnen]], sein Leben lang gehofft,
Peter had on it this match to win his life long hoped

und Tom$_2$ hatte [darauf, [PRO$_{*1/2}$ dieses Spiel zu gewinnen]], sein Leben lang
and Tom had on it this match to win his life long
gehofft.
hoped
'Peter had hoped to win this match all his life, and Tom had hoped to win this match all his life.'

(29) a. Hans$_1$ hat [den Gedanken (daran), [PRO$_1$ sie zu besuchen]], wieder verworfen,
Hans has the thought (at it) her to visit again discarded
und Peter ebenfalls.
and Peter too
'Hans again discarded the thought of visiting her, and Peter did too.'

b. Hans$_1$ hat [den Gedanken (daran), [PRO$_1$ sie zu besuchen]], wieder verworfen,
Hans has the thought (at it) her to visit again discarded
und Peter$_2$ hat [den Gedanken (daran), [PRO$_{*1/2}$ sie zu besuchen]], wieder
and Peter has the thought (at it) her to visit again
verworfen.
discarded
'Hans again discarded the thought of visiting her, and Peter again discarded the thought of visiting her.'

(30) a. Mathis$_1$ hat [das Angebot [PRO$_1$ Hockey mitzuspielen]] natürlich gerne
Mathis has the offer hockey with.to.play of course gladly
angenommen, und Lasse auch.
accepted and Lasse too
'Of course, Mathis accepted gladly the offer to join the hockey game, and Lasse did too.'

b. Mathis$_1$ hat [das Angebot [PRO$_1$ Hockey mitzuspielen]] natürlich gerne
Mathis has the offer hockey with.to.play of course gladly
angenommen, und Lasse$_2$ hat [das Angebot [PRO$_{*1/2}$ Hockey mitzuspielen]]
accepted and Lasse has the offer hockey with.to.play
natürlich gerne angenommen.
of course gladly accepted
'Of course, Mathis accepted gladly the offer to join the hockey game, and Lasse accepted gladly the offer to join the hockey game.'

So, to sum up, this is what the data tell us: the controlled clauses in (25-a)-(27-a) (which involve OC; cf. (28)-(30)) are islands because they block extraction (cf. (25-b)/(25-c)-(27-b)/(27-c)). As the word order clearly shows, they do not involve extraposition (i.e., they are genuine examples of the type 3-scenario; cf. (24)). This means that these sentences involve control into islands which cannot be resolved by sideward movement; hence, the MTC cannot account for these data.

## 5. A hybrid theory of control (HTC)

### 5.1 Basic assumptions

Let us now take a look at an alternative theory of control: the hybrid theory of control, which combines aspects of both the MTC and traditional PRO-based theories of control. It is compatible with both phase theory and all three control scenarios discussed in the previous sections. In this section, the basic underlying assumptions of the HTC will be introduced, followed by the data considered before. Basically, the idea is the following: the controllee has to move closer to the controller position to be able to establish the control relation in a local configuration (in accordance with the PIC); however, the controllee is not forced to move out of islands to license control into islands – just being at their edge suffices.

Technically, this is implemented as follows: the controllee is merged in the derivation as an empty argument (= EA) with the feature specification $\{D, \varphi{:}\_\}$.[21] The unvalued $\varphi$-features express the referential defectiveness of EA (cf. also Sigurðsson 2008, who considers PRO a $\varphi$-feature variable) and force it to undergo Agree with the controller as goal to ensure valuation.[22] Formally, we can adopt a version of Wurmbrand's definition of (Reverse) Agree (cf. Wurmbrand 2011: 3):

(31) *Agree:*
A feature [F:_ ] on $\alpha$ is valued by a feature [F: *val*] on $\beta$ iff
(i) $\beta$ c-commands $\alpha$,
(ii) $\beta$ is the closest goal, and
(iii) $\alpha$ is accessible to $\beta$.

The derivation of obligatory control then proceeds as follows: the D-feature allows EA to be merged into an argument position (as regards its distribution in general, cf. section 5.4); from

[21] Cf. also Landau 2015, who labels this element a minimal pronoun, following Kratzer 2009. Note, moreover, that this empty argument is not a control-specific formative but could in principle also surface as *pro* or maybe as reflexive (cf. also section 5.4); therefore, it is called EA instead of PRO (although, in control contexts, it can be equated with PRO).

[22] Following Pesetsky & Torrego (2007), Bošković (2009 *et seq.*), Wurmbrand (2011), and others, I assume that Agree is valuation driven.

here it probes upwards to find a goal/licensor (as to upward probing, cf. also Schäfer 2008, Zeijlstra 2012, Wurmbrand 2011, 2013, Bjorkman & Zeijlstra 2014). If there is no potential antecedent present in the phase containing EA (as is the case in OC due to the non-local dependency), the need to establish an Agree configuration forces it to move to the phase edge, from which it probes further.[23] When a DP is merged, EA finds a goal and can be licensed under Agree; i.e., the $\varphi$-features of EA are valued and EA gets bound by the licensor. The latter step follows from the fact that EA itself is referentially defective; hence, it needs to be referentially identified. It is assumed that EA inherits the index of the DP that values EA's $\varphi$-features as a side product.[24]

Comparing the HTC to its predecessors, we can conclude that, as in the MTC, the controllee has to move to be licensed, the licensing conditions are not control-specific (i.e., no independent control module is needed), and non-obligatory control is a case of last resort if no syntactic licensor can be found (cf. section 7).[25] As in PRO-based theories, however, it is assumed that the controllee is an independent argument, receiving its own $\theta$-role (i.e., the Theta Criterion is not dispensed with). In addition, as in Landau (2000, 2004), Agree is a basic licensing mechanism of control. The hybrid nature of the approach thus follows from the fact that the licensing of control involves both movement plus Agree.[26]

[23]Cf. also Bošković (2007), Wurmbrand (2011), Zeijlstra (2012) as to the assumption that probes (or goals in the case of Bošković 2007, who does not assume upward probing) are forced to move to warrant a specific configuration for Agree/valuation to take place (though, in the case of Wurmbrand 2011, this happens immediately after remerging the probe). While Bošković (2007) and Zeijlstra (2012) argue that this is the underlying motivation for movement in general, I cannot commit myself to this view; an alternative standard assumption would be the insertion of edge features to trigger intermediate movement (cf. Chomsky 2000 *et seq.*, Müller 2010, and others).

[24]In fact, this is also the trigger for Agree in Sheehan's (to appear, B) Caseless control scenario. Under this scenario, the unvalued D-feature on the controllee is looking for a DP with a referential index as a goal in its c-command domain (which then moves to a higher position). Under the HTC, the interpretation of EA can also be considered the result of index sharing between controller and controllee.

[25]However, in contrast to the MTC, the trigger for movement is completely independent of Case considerations.

[26]Note that van Urk's (2010) analysis of obligatory control can also be considered to be hybrid, but for different reasons. He proposes two structurally different types of OC: one of the movement type and the other PRO-based. Similarly, Sheehan (to appear A, B) advances a similar strategy to capture OC in European Portuguese, Russian, and Icelandic. What she suggests is that control into non-phasal non-finite complements involves movement, whereas control into phasal non-finite complements involves Agree (with the pronominal being located in SpecC, the phase edge). As for the idea that some licensing under Agree requires previous successive-cyclic movement

## 5.2 Subject control and the HTC

To demonstrate the underlying mechanism, let us briefly go back to our initial example (1-a), repeated in (32-a), to see how subject control is derived under the HTC. As for EA, it is assumed that this referentially defective argument is part of the lexicon, and inserting it into the numeration is optional. However, if it is not inserted in (32-b), the derivation will crash later on because of a violation of the Theta Criterion. Hence, only the numeration in (32-b) can derive (32-a).[27] (Note that the representation of the numerations has been simplified as no further segmentation into different lexical subarrays has been taken into account.)

(32) a. John tries to win.

b. *Underlying numeration:*

Num = {John, tries, to, win, EA}

The derivation then proceeds as follows. In Specv, EA is inserted as the external argument of *win* and is assigned the latter's external $\theta$-role.[28] Then it moves to the embedded SpecT position to check the EPP on T,[29] and finally to the edge of the embedded CP in order to remain accessible, as it still needs to value its $\varphi$-features; so the last step is simply repair-driven movement (cf. (33)).

of the licensee to the edge of the previous phase, cf. also Grewendorf & Groat's (2013) analysis of free relatives, in which the head $D_{FR}$ of a null-headed DP probes into its CP complement to find a suitable goal (= the *wh*-phrase), or Fischer (2004, 2006)'s analysis of anaphoric and pronominal binding.

[27]Note that a numeration involving an overt DP instead of EA must also be excluded, boiling down to the question of why PRO must be covert. Following Sigurðsson (2008), this might be related to the fact that lexical DPs have inherent person specifications, in contrast to PRO/EA (whose $\varphi$-features are not inherently specified). On the assumption that the Person head of PRO-infinitives (which is part of the T-complex) is inherently unspecified, a lexical DP would not be compatible, since the latter "has to match an independent or a non-defective Person head in the clausal structure" (cf. Sigurðsson 2008: 441). Put differently, the covertness of the controllee might be related to the defectivity of the $\varphi$-bundle on T in control infinitives in the sense of Chomsky (2000, 2001).

[28]In the following, this is illustrated with $\theta$-features to show explicitly when $\theta$-role assignment takes place (with $\theta$-features on the prediacte starred). However, whether $\theta$-roles are implemented as features or not does not play a role for this theory. Recall, moreover, that material that is rendered inaccessible by the PIC is crossed out, and so are features that have been checked.

[29]Nothing hinges on this movement step; if a language does not have an EPP-feature on T (as has been argued for German by Haider 1993, and others), EA can directly move from Specv to SpecC.

(33) a. $[_{\mathrm{vP}}\ \mathrm{EA}_{[\cancel{\theta},\varphi:\_]}\ \mathrm{win}_{\cancel{[*\theta*]}}\ [_{\mathrm{VP}}\ \mathrm{t}_{win}]]$

b. $[_{\mathrm{TP}}\ \mathrm{EA}_{[\varphi:\_]}\ \mathrm{to}_{\cancel{[EPP]}}\ [_{\mathrm{vP}}\ \mathrm{t}_{EA}\ \mathrm{win}\ \cancel{[_{\mathrm{VP}}\ \mathrm{t}_{win}]}]]$

c. $[_{\mathrm{CP}}\ \mathrm{EA}_{[\varphi:\_]}\ [_{\mathrm{TP}}\ \mathrm{t'}_{EA}\ \mathrm{to}\ \cancel{[_{\mathrm{vP}}\ \mathrm{t}_{EA}\ \mathrm{win}\ [_{\mathrm{VP}}\ \mathrm{t}_{win}]]}]]$

Now the matrix clause is derived. After merging the matrix verb *try*, the matrix subject *John* enters the derivation in Specv and is assigned the external $\theta$-role by the matrix predicate. Note that, due to its movement to the edge of CP, EA is still accessible when *John* is merged into the structure (*John* is then in Specv of the matrix clause and EA in SpecC, the edge of the preceding phase; cf. (34)).

(34) $[_{\mathrm{vP}}\ \mathbf{John}_{[\cancel{\theta},\varphi:val]}\ \mathrm{tries}_{\cancel{[*\theta*]}}\ [_{\mathrm{VP}}\ \mathrm{t}_{tries}\ [_{\mathrm{CP}}\ \mathbf{EA}_{[\varphi:\underline{val}]}\ \cancel{[_{\mathrm{TP}}\ \mathrm{t'}_{EA}\ \mathrm{to}\ [_{\mathrm{vP}}\ \mathrm{t}_{EA}\ \mathrm{win}\ \mathrm{t}_{win}]]}]]]$

So EA's $\varphi$-features can finally be valued by the matrix subject under Agree, and EA is interpreted as being bound by *John*.[30]

### 5.3 Object control and the HTC

So far, we have only considered examples in which the controller is the subject of the matrix clause. In this section, we will briefly turn to object control to see how standard examples like (35) are derived.

(35) John$_1$ persuaded Bill$_2$ [EA$_{*1/2}$ to leave].

The derivation of (35) proceeds as follows: first, the embedded clause is built. In Specv, EA is inserted as the external argument of *win* and is assigned the latter's external $\theta$-role. Then it moves to the embedded SpecT position to check the EPP-feature on T, and finally to the edge

[30] Note that there is a further locality restriction involved, as a DP cannot license EA if they are both at the edge of the same phase. That licensing in this configuration is blocked has been observed before; cf. McGinnis' (1998, 2004) notion of lethal ambiguity in the context of anaphoric dependencies. This restriction prevents other elements that move to the phase edge from controlling EA; cf., for instance, the German topicalization example in (i), where *Maria* is prevented from licensing EA at the edge of the embedded clause.

(i) Maria$_1$ habe ich$_2$ [t'$_1$ EA$_{*1/2}$ t$_1$ zu küssen] versucht.
Maria have I to kiss tried
'I tried to kiss Mary.'

of the embedded CP in order to remain accessible, as it still needs to value its $\varphi$-features; cf. (36).

(36) a. $[_{\text{vP}}$ EA$_{[\theta,\varphi:_]}$ win~~$_{[*\theta*]}$~~ $[_{\text{VP}}$ t$_{win}]]$

b. $[_{\text{TP}}$ EA$_{[\varphi:_]}$ to~~$_{[EPP]}$~~ $[_{\text{vP}}$ t$_{EA}$ win ~~$[_{\text{VP}}$ t$_{win}]$~~$]]$

c. $[_{\text{CP}}$ EA$_{[\varphi:_]}$ $[_{\text{TP}}$ t$'_{EA}$ to ~~$[_{\text{vP}}$ t$_{EA}$ win $[_{\text{VP}}$ t$_{win}]]$~~$]]$

Next, *persuade* merges with the embedded CP and $\theta$-marks the latter. Then, *Bill* enters the derivation in SpecV and is assigned the second internal $\theta$-role of *persuade*. Since *Bill* and EA are now both accessible and the former c-commands EA, the control relation can be established – *Bill* can value EA's $\varphi$-features under Agree. As a result, we get object control; cf. (37).[31]

(37) $[_{\text{VP}}$ **Bill**$_{[\theta,\varphi:val]}$ persuaded~~$_{[*\theta*]}$~~ $[_{\text{CP}}$ **EA**$_{[\varphi:\underline{val}]}$ ~~$[_{\text{TP}}$ t$'_{EA}$ to $[_{\text{vP}}$ t$_{EA}$ leave $[_{\text{VP}}$ t$_{leave}]]]$~~$]]$

### 5.4 On distribution and realizations of EA

Returning to the underlying idea that EA can be inserted freely into the numeration, another

[31] I do not have much to add to the discussion of *promise*-verbs or control shift (cf., for instance, Bresnan 1982; Farkas 1988; Sag & Pollard 1991; Petter 1998; Stiebels 2007; Polinsky 2011; Landau 2012). As for examples of the former type (cf. (i)), it could be argued that potential goals within the same phase count as being equidistant from the corresponding probe.

(i) John$_1$ promised Mary$_2$ [EA$_{1/*2}$ to call Anna].

On the assumption that the controller has not been chosen before the completion of the phase, this could indicate that both the matrix subject and object could be potential controllers from a syntactic point of view. This preselection by the syntactic component could then be mapped to the semantic component, which would then decide which potential controller matches the additional semantic criteria which seem to set *promise*-verbs apart from object control verbs (for instance, different underlying authority relations).

Alternatively, one could follow Landau (2015)'s analysis of logophoric control and encode it syntactically in the embedded clause as follows: since *promise* is an attitude verb, it takes a complement that hosts logophoric information in its left periphery. Landau (2015) proposes that this information (encoded as Author/Addressee coordinate) can project syntactically in the form of a variable $pro_x$. Whether the variable is bound by the matrix subject or object is determined by semantic/pragmatic factors. Under the HTC, this logophoric variable would then be the closest binder for EA. However, I will leave a more thorough discussion for future research since it is beyond the scope of this paper.

question arises. What ensures that EA surfaces in the subject position of infinitivals and not in another argument position? In other words, what about structures like (38)?

(38) a. EA sings.
b. John hates EA.

On closer inspection, though, it is not at all that clear why we would want to rule out (38) completely. What (38-a) actually displays is a sentence with a non-overt argument in the subject position of a finite clause. Of course, this does not occur in English, but this is exactly what is found in *pro*-drop languages, and the proposal that PRO and *pro* have the same origin is not new (cf. also Borer 1989; Huang 1989; Manzini 2009; Duguine 2015; McFadden & Sundaresan 2016). As an illustration, let us briefly consider the Italian example in (39).

(39) Canto.
sing.1SG
'I sing.'

The standard analysis (following Rizzi 1986) is to assume that the syntactic derivation involves *pro* as external argument (for a different view, cf., for instance, Borer 1986; Alexiadou & Anagnostopoulou 1998). According to the underlying assumptions of the HTC, EA can be inserted freely into the numeration, and so it is easy to see that EA could take over the role of what is standardly called *pro*. Since without EA the Theta Criterion would be violated, a successful derivation must include EA (Num = {EA, canto}). What distinguishes EA in (39) from EA in OC would then be not an inherent property of EA itself, but instead would be due to different licensors. That (38-a) is not available in English then simply follows from the fact that whatever ultimately licenses EA in (39) is only available in *pro*-drop languages.[32]

In (38-b), the situation is the following: the object position is occupied by a non-overt

[32] Following Roberts 2010, we might assume that the null-subject parameter is due to a D-feature on T, which could enable T to act as a licensor for EA in those cases where it replaces *pro*. This D-feature (which characterizes Italian as a null-subject language) would permit T to license EA, since both are accessible when T is merged into the derivation and T c-commands EA. As a result, Agree could take place between EA and $T_{[D,1sg,EPP]}$, and the $\varphi$-features of EA would be valued. Hence, we would end up with what we standardly call *pro*. So the difference between PRO and *pro* would derive from two different licensors – an overt DP argument in the case of OC PRO and a D-feature-bearing T head in the case of *pro*.

argument which ends up being bound by the subject *John*. Again, this might be a scenario we do not want to abandon completely. Although they are typically phonologically realized, this configuration is reminiscent of that of anaphors. So EA could also end up being the source of anaphors, independent restrictions forcing us to spell out EA phonologically in this context (cf. also Hornstein 2001, who extends his movement approach to anaphors as well). However, a more elaborate analysis in this direction lies beyond the scope of this paper and is therefore left for future research.

In any case, the central insight is that EA is not control-specific (unlike PRO), and therefore we expect it to appear in other constructions as well. So EA can be considered the source of OC PRO and NOC PRO (cf. section 7), as well as of *pro* and anaphors. Thus, these elements are not inherently different in the lexicon, but simply emerge because different licensors are involved in their respective contexts.

## 6. Control into islands and the HTC

Let us now return to the focus of this paper: the three different scenarios from section 3 involving control into adjuncts and non-adjoined islands. The following three subsections address each of these three scenarios and their analysis under the HTC.

### 6.1 Adjunct control and the HTC

We start with scenario 1, control into an adjunct created by external merge. This is exemplified by example (40) (repeated from (6)).[33]

(40) John$_1$ heard Mary$_2$ [without PRO$_{1/*2}$ entering the room]. (cf. Hornstein 1999: 88)

Again, we are free to choose between numeration (41-a) and (41-b); however, in (41-a), the derivation will crash because it will inevitably violate the Theta Criterion.

(41) Num$_1$ = {John, heard, Mary, without, entering, the, room}
Num$_2$ = {John, heard, Mary, without, **EA**, entering, the, room}

The adjunct is then derived as follows: EA is inserted in Specv, where it gets its $\theta$-role from *enter*. Since its $\varphi$-features are still unvalued, it starts moving, first to SpecT, where it checks

[33]Recall that this scenario also entails extraposition if a base-generation approach to extraposition is adopted.

the EPP-feature on T, and then to SpecC, the edge of the phase and the edge of the adjunct.[34]

(42) *Deriving the adjunct:*

a. [$_{\text{vP}}$ EA$_{[\cancel{\theta},\varphi:_]}$ entering$_{\cancel{[*\theta*]}}$ [$_{\text{VP}}$ t$_{entering}$ the room]]

b. [$_{\text{TP}}$ EA$_{[\varphi:_]}$ T$_{\cancel{[EPP]}}$ [$_{\text{vP}}$ t$_{EA}$ entering ~~[$_{\text{VP}}$ t$_{entering}$ the room]~~]]

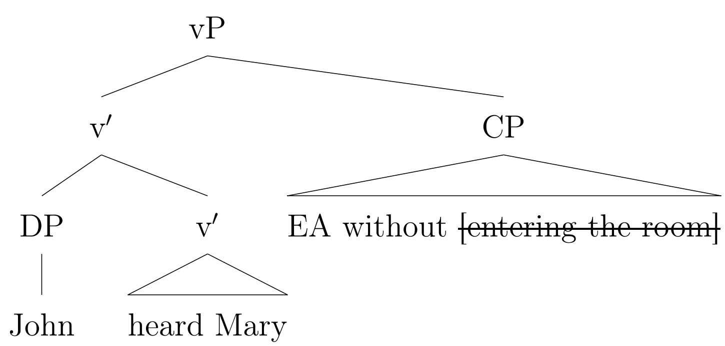
c. [$_{\text{CP}}$ EA$_{[\varphi:_]}$ without [$_{\text{TP}}$ t$'_{EA}$ T ~~[$_{\text{vP}}$ t$_{EA}$ entering [$_{\text{VP}}$ t$_{entering}$ the room]]~~]]

As for the main clause, *heard* first merges with *Mary* (building the vP) and assigns its internal $\theta$-role to it. Next, *heard* moves to v, *Mary* checks Accusative Case, and *John* is merged into Specv, where it is assigned the external $\theta$-role of *heard*. (43) illustrates this point in the derivation.

(43) [$_{\text{vP}}$ John heard [$_{\text{VP}}$ t$_{heard}$ Mary]]

Now the adjunct is merged into the derivation, which is illustrated in (44).

(44)




Here we have the following configuration: both *John* and the adjunct are at the edge of the vP phase, meaning that they c-command each other in the sense of the category-based definition of c-command by Kayne (1994), cf. (45).[35]

[34] Details concerning the structure of gerunds will not be covered here.

[35] In fact, category-based versions of c-command have often been proposed when licensing mechanisms under c-command involving adjoined structures have been investigated. It has been empirically important, for instance, in May's (1985) derivation of scopal relations after QR, or Kayne's (1995) approach to linearization based on the Linear Correspondence Axiom (LCA). Also from a theoretical point of view, category-based definitions have often been adopted in the literature when adjoined structures/multi-segment categories have been scrutinized; cf. Chomsky (1995: 338 f.), or Sheehan (2013). I agree with Sheehan (2013: 15) in that "while it is true that category-based definitions of c-command appear complex when described verbally, they are more simple to represent graphically" – so (45) is not a complication of the notion of c-command but rather helps to clarify relationships in multi-segment structures.

(45) *Category-based definition of c-command:*

X c-commands Y iff X and Y are categories and X excludes Y and every category dominating X dominates Y. (cf. Kayne 1994: 16, 18)

(46) a. X excludes Y if no segment of X dominates Y.

b. X is dominated by Y only if it is dominated by every segment of Y.

(cf. Chomsky 1986: 7, 9)

For (44), this has the following effect: the first category dominating *John* is vP, which also dominates the adjunct (consequently *John* c-commands the adjunct). Note that only one segment of v′ dominates *John*; hence, the category v′ (which all in all consists of two segments) does not dominate the latter. Therefore, *John* also c-commands EA at the adjunct's edge, which is still accessible at this point of the derivation. As a result, *John* can function as licensor of EA – it can value EA's $\varphi$-features and thereby establish the control relation.[36]

At this point, the discerning reader might have this question: why is Agree into the adjunct possible, while movement out of it is illicit? The crucial point is that the availability of Agree does not necessarily imply the availability of movement. Being at the edge of the previous phase is sufficient for Agree to take place (because accessibility suffices as a precondition for Agree), but for extraction out of the adjunct, it is not enough to be at its edge (or at the highest phase edge within the adjunct). Although being at the edge is a necessary precondition for movement, it is still not sufficient: there is an asymmetry between Agree and movement as, at any given phase edge, Agree can take place but movement might not be an available option.

In fact, for the HTC it is not really important what exactly this extra requirement for movement is. One possibility is that it has something to do with the need of edge features in the target phrase if movement is to take place. In (44) this means that in order to move material out of the adjunct, one would need to have an edge feature on the head of the targeted phrase. On this assumption, islandhood would then be a question of the unavailability of such an edge feature.[37]

[36]Note that the object, by contrast, is not in a position where it could license EA; i.e., object control into adjuncts is ruled out. This does not imply, however, that the object cannot bind variables inside the adjunct – LF movement to Specv can derive these readings; cf., for instance, *John read every book*$_1$ *without reviewing it*$_1$ (Hornstein 1999: 88).

[37]For a potential technical implementation, cf., for instance, Müller (2010, 2011). He proposes that edge feature insertion is only possible if the phase head in the targeted phase is still active (note that for Müller all

To sum up, although accessibility (i.e. being at the very least at the phase edge of the previous phase) is a precondition for both Agree and movement, this is not yet a sufficient condition for the latter. In the case of islands, movement within the island (i.e. in particular to the edge of the highest phase contained in it) is not restricted; it is movement beyond which is forbidden (presumably because edge feature insertion fails in the targeted phrase). However, the edge of the highest phase within the adjunct (= SpecC in (44)) is accessible; hence, EA can be licensed by the controller via Agree.

### 6.2 Extrapositon and the HTC

Let us now turn to the second scenario introduced in section 3: control into adjuncts created by movement. Following the movement theory of extraposition, examples like (47) (repeated from (14-a)) display this configuration.[38] In fact, for the HTC it does not really make a difference whether an adjunct is created by external or internal merge; however, in the latter case there are, in principle, two ways in which the control relation can be derived: either after adjunction has taken place (corresponding to scenario 1) or before (corresponding to scenario 3). In the following, the first option will briefly be outlined (the second option will be considered in section 6.3).

(47) Er hat [$_{\text{DP}}$ es $t_{CP}$] bedauert, [$_{\text{CP}}$ EA Maria verletzt zu haben].
he has it regretted EA Maria hurt to have
'He regretted having hurt Maria.'

Inside the infinitival clause (which is base-merged as the complement of the sentential pronoun *es*), the empty argument EA is inserted as external argument of the predicate *verletzen* ('hurt') and moves to the edge of CP, since it still needs to value its $\varphi$-features. However, it cannot leave the DP via leftward movement, because this is an island.[39] But rightward movement is typically

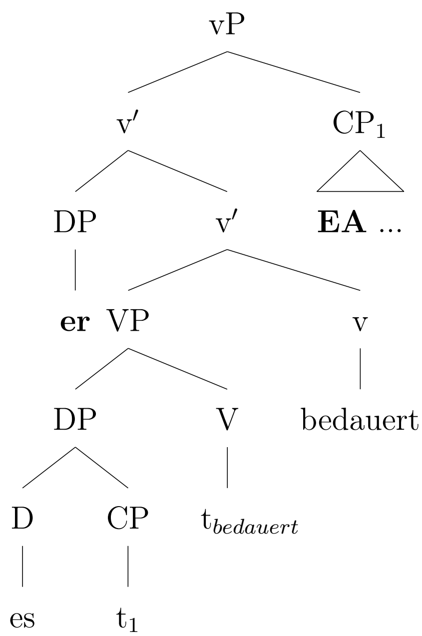
phrases are phases); in other words, it must still have some structure-building or probe feature on it. In (44), movement out of the adjunct into the vP would thus be impossible, since all features on v have been used up at this point (i.e., the vP phase is complete and v therefore inactive). Movement out of the adjunct into a higher phrase is thus barred since it would have to occur successive-cyclically via Specv (in view of the PIC).

[38]Again, if the base-generation approach to extraposition is adopted, these data fall under category 1 (as a result, there would be simply no trace in (48)). If a PF account is adopted, they fall under category 3 (cf. section 6.3).

[39]As observed before, these sentential pronouns block leftward movement and turn the DP into an island.

not affected by islands in the same way (cf., for instance, Müller 1995 and other literature on extraposition), and thus EA can move as part of the CP to a right-adjoined position; cf. (48).

(48) *Agree between controller "er" and EA:*




Here, EA can be licensed by the controller in exactly the same way as outlined in the previous section: since EA is at the edge of the adjoined CP, EA and the matrix subject are both accessible at this point of the derivation. Moreover, the subject c-commands EA (following the category-based definition of c-command in (45)) and can thus value EA's $\varphi$-features under Agree. As a result, the controllee ends up being bound by the controller, and the control relation is derived.

### 6.3 Non-extraposed islands and the HTC

Finally, let us take a look at the derivation of a sentence involving control into an island without extraposition (i.e. scenario 3, the problematic case for the MTC). As an example, consider (49) (repeated from (27-a)).

(49) Mathis$_1$ hat [$_{DP}$ das Angebot, [$_{CP}$ EA$_1$ Hockey mitzuspielen]], natürlich gerne
Mathis has the offer hockey with.to.play of course gladly
angenommen.
accepted
'Of course, Mathis accepted gladly the offer to join the hockey game.'

Again, EA is inserted as the external argument of the embedded predicate, and since its $\varphi$-features are unvalued, it moves to the edge of CP. On the assumption that only vPs and CPs are phases (cf. Chomsky 2000), this suffices for the licensing of EA, since in the next phase (= vP) the controller is merged into the derivation (in Specv) and can license EA under Agree.[40]

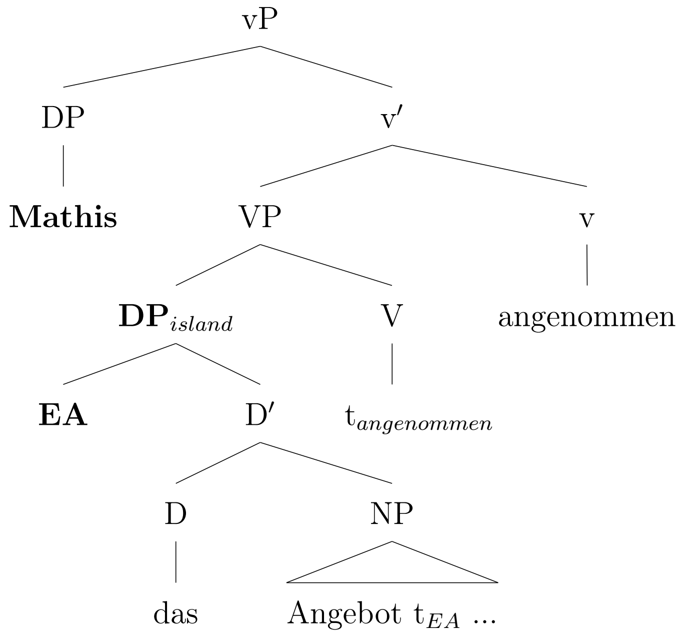
If it is assumed that DPs are also phases, an additional phase intervenes between CP and vP in (49); as a result, EA has to move to SpecD (i.e. to the edge of the island), where it can then be licensed by the subject in Specv (cf. (50) and (51)).

(50) [$_{\text{vP}}$ Mathis$_{[\varphi:val]}$ [$_{\text{DP}}$ EA$_{[\varphi:\underline{val}]}$ das ~~[$_{\text{NP}}$ Angebot, [$_{\text{CP}}$ t$_{EA}$ Hockey mitzuspielen]]~~], angenommen]

(51) *Agree between controller "Mathis" and EA:*

[40]Note that the intervening DP is not a potential licensor of EA since it does not even c-command EA (in fact, EA is dominated by it). Moreover, it can be excluded that there is an empty controller inside the island in form of a covert PP in the complement position of the noun: although *Angebot* ('offer') might take overt complements of this type (cf. (i)), this is not the case for other nouns that can occur inside such islands (cf. (ii)).

| | | | | | | |
|---|---|---|---|---|---|---|
| (i) | [$_{\text{DP}}$ das Angebot | (?an ihn$_1$) | [$_{\text{CP}}$ EA$_1$ | Hockey | mitzuspielen]] | |
| | the offer | on him | | hocky | with.to.play | |
| | 'the offer to join the hockey game' | | | | | |
| (ii) | [$_{\text{DP}}$ der Gedanke | (*an ihn$_1$) | [$_{\text{CP}}$ EA$_1$ | sie | zu | besuchen]] |
| | the thought | on him | | her.ACC | to | visit |
| | 'the thought of visiting her' | | | | | |




As noted before, this implies that islands have the following analysis: the fatal movement step is not movement out of the embedded CP, but movement out of the intervening DP (i.e. the complex DP, which forms an island);[41] hence, EA is stuck in SpecD (cf. (52)). Technically, this means that edge feature insertion is not possible on the head selecting a complex DP.[42]

Finally, it is worth mentioning that, in contrast to scenario 1, both scenario 2 and 3 might also involve object control (depending on the control predicate involved). This is illustrated by the German data in (52): (52-a) involves object control into a non-extraposed CP (= scenario 3), while (52-b) involves object control into an extraposed CP.

(52) a. Er$_1$ wollte ihr$_2$ [$_{DP}$ die Chance EA$_{*1/2}$ sich zu verbessern] auf keinen Fall
he wanted her.DAT the chance REFL to improve on no case
geben.
give
'By no means, he wanted to give her the chance to improve.'

[41]Note that an analysis along these lines is not unusual. Consider the 1980s account of islands in terms of subjacency: the standard account of (49) also suggested that movement was not necessarily fatal when the CP boundary was crossed – instead, it was the crossing of the second bounding node (= TP; the first bounding node being the DP) which ultimately led to ungrammaticality.

[42]I have nothing to say about why this is the case in the context of complex DPs and will leave this issue for future research. In any case, the issue boils down to the question of why complex DPs are islands, which possibly relates to problems concerning linearization as proposed by a number of researchers (cf. Uriagereka 1999; Sheehan 2010 and others).

b. Er$_1$ wollte ihr$_2$ [$_{DP}$ die Chance t$_{CP}$] auf keinen Fall geben, [$_{CP}$ EA$_{*1/2}$
he wanted her.DAT the chance on no case give
sich zu verbessern].
REFL to improve
'By no means, he wanted to give her the chance to improve.'

In (52-a), EA moves to the highest phase edge inside the complex DP in its search for a suitable goal. Here (i.e. in SpecD), it is still accessible when the indirect object DP *ihr* ('her.DAT') is merged into the derivation in SpecV, so the latter functions as a goal and licenses EA under Agree. Following the movement-based approach to extraposition, (52-b) has the same underlying structure as (52-a), so the control relation can be derived in the same way.

To sum up, the gist of the HTC analysis is that EA does not have to move all the way up to the controller position; instead, it is enough to move to the edge of the preceding phase, which means that, with respect to the island examples discussed above, extraction out of the island is not required to establish the control relation. An MTC account, by contrast, would, by definition, have to assume that EA moves out of the island, which is impossible if the island has already been merged into the derivation by that point.

## 7. On non-obligatory control

### 7.1 Arbitrary control

So far it has been tacitly assumed that by probing EA finds a suitable goal to value its $\varphi$-features and determine its reference. In this section we will be focusing on scenarios in which such a goal is not available – either due to the lack of a c-commanding DP argument in general or because potential controllers do not meet the relevant locality restrictions (because they are not in the same accessible domain as EA or do not c-command the latter).

A first case in point is the following example, which does not have a single DP argument that could function as a controller.

(53) [EA to shave oneself] is dangerous.

That EA must be part of the numeration follows from Theta Theory (a derivation without EA inevitably crashes since it violates the Theta Criterion), Binding Theory (EA helps to satisfy Principle A), and the EPP (EA helps to satisfy the EPP in the subject clause). As regards its interpretation, the non-overt subject refers to an arbitrary individual, so this is a case of arbitrary control.

How is this derived under the HTC? The underlying assumption is that if there is no controller available which can value EA's $\varphi$-features under Agree, default valuation applies to prevent the derivation from crashing. This is in line with Preminger (2014), who has proposed that the failure of an Agree relation can trigger default valuation of the corresponding features (cf. his notion of fallible Agree).[43] Hence, arbitrary control can be seen as the result of a last resort strategy. In fact, a similar proposal has been put forward by McFadden & Sundaresan (2016), who also argue that "NOC interpretations of PRO can arise only when [the strict] structural conditions for OC are not met" (p. 5).[44]

Under the HTC, the derivation of (53) is as follows: when the subject clause is derived, EA is inserted in Specv, where it is $\theta$-marked by *shave* and binds the anaphor (cf. (54-a)).[45] Since its $\varphi$-features are still unvalued, EA then moves to SpecT in search of a potential goal, thereby satisfying the EPP on T (cf. (54-b)). Then, because there is still no controller available, it moves on to SpecC, the edge of the next phase; cf. (54-c).

(54) *Deriving the subject clause:*

a. $[_{\mathrm{vP}}$ EA$_{[\not\theta,\varphi:_]}$ shave$_{[\not*\theta*]}$ $[_{\mathrm{VP}}$ t$_{shave}$ oneself]]

b. $[_{\mathrm{TP}}$ EA$_{[\varphi:_]}$ to$_{[\not{EPP}]}$ $[_{\mathrm{vP}}$ t$_{EA}$ shave ~~$[_{\mathrm{VP}}$ t$_{shave}$ oneself]~~]]

c. $[_{\mathrm{CP}}$ EA$_{[\varphi:_]}$ $[_{\mathrm{TP}}$ t$'_{EA}$ to $[_{\mathrm{vP}}$ t$_{EA}$ shave ~~$[_{\mathrm{VP}}$ t$_{shave}$ oneself]~~]]]

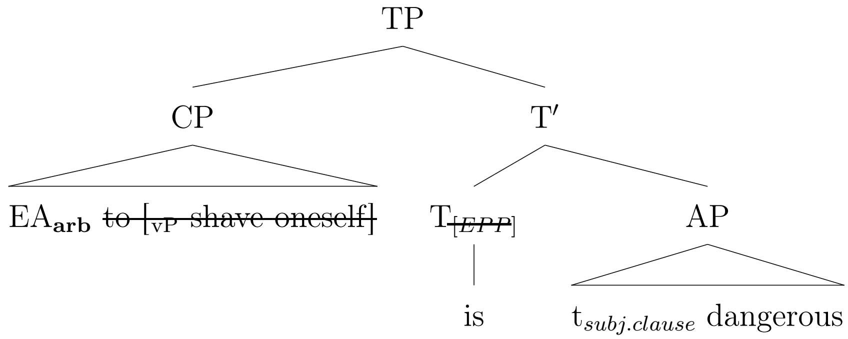
The subject clause is then merged into the external argument position of the predicate *dangerous*, ending up in SpecT (where it checks the EPP on T). Since at no point in the derivation is a potential goal inserted, the $\varphi$-features of EA finally undergo default valuation, with EA being interpreted as "arbitrary PRO"; cf. (55).

[43]Cf. also Schäfer (2012) on the passive of reflexive verbs. He suggests that in the absence of a 'true' antecedent, the $\varphi$-features of reflexives can be valued via Default Agreement in some languages as a last resort operation.

[44]Note that to construe NOC as a last resort means that the model makes clear-cut predictions regarding the distinction between OC and NOC. Although the technical definitions of OC and NOC vary in the literature (cf., for instance, Rosenbaum 1967; Williams 1980; Landau 2000; Stiebels 2015), the two types of control can be distinguished along the following lines: OC involves only sloppy readings under vP ellipsis, it only yields a *de se* interpretation in attitude contexts, and it obligatorily involves a local, c-commanding antecedent. This is not the case in NOC contexts.

[45]I am knowingly ignoring technical details regarding anaphoric binding; cf., for instance, Fischer (2004, 2006).

(55)




### 7.2 Long-distance control and the impact of discourse

Example (53) (*To shave oneself is dangerous*) is a typical example of NOC. But, apart from arbitrary control, NOC also comprises long-distance (LD) control, which "involves discourse or speech act participants or controllers in a clause higher than the respective clause-embedding predicate" (cf. Stiebels 2015: 428); cf. (56) and the German example in (57).

(56) Ohio State$_1$ is in a lot of trouble, according to today's newspaper. Apparently, [EA$_1$ firing the football coach] has turned off a lot of potential donors.

(cf. Culicover & Jackendoff 2006: 137)

(57) Amy$_1$ glaubt, dass es Spaß macht, [EA$_{1/arb}$ mit Dan zu tanzen].
Amy thinks that it fun makes with Dan to dance
'Amy thinks that dancing with Dan would be fun.'

(cf. Culicover & Jackendoff 2006 for similar examples from English)

For a syntactic theory of control, this means that LD control should work in the same way as arbitrary control, and this is in fact what the HTC predicts: in the syntactic derivation, there is either no potential goal around at all (as in (56)), or it is too far away to licence EA syntactically (cf. (57), where EA is stuck inside a subject island and is therefore no longer accessible when *Amy* enters the derivation). As a result, default valuation takes place, as outlined in section 7.1.[46] However, since EA in NOC contexts behaves like a logophor (cf., for instance, Landau 2000: 25 *et seq.*), the default interpretation we get from the syntactic derivation might be overriden by another discourse-prominent reference.

This is illustrated by the contrast in (58-a) and (58-b): (58-a) involves (Amy's) point of

[46]By contrast, complement control is always predicted to be OC, since an embedded infinitival clause is not an island, and licensing by a matrix DP under Agree is therefore always possible.

view, which is one of the typical discourse factors that licenses the use of logophors; however, if the point of view changes, as in (58-b), logophoricity is no longer licensed and coreference between *Amy* and EA is therefore no longer viable.[47]

(58) a. Amy$_1$ glaubt, dass es Spaß macht, [EA$_{1/arb}$ mit Dan zu tanzen].
Amy thinks that it fun makes with Dan to dance
'Amy thinks that dancing with Dan would be fun.'

b. Amy$_1$ wurde erzählt, dass es Spaß macht, [EA$_{arb/2/*1}$ mit Dan zu tanzen].
Amy was told that it fun makes with Dan to dance
'Amy was told that dancing with Dan would be fun.'

## 8. Conclusion

This paper set out to develop a hybrid theory of control (HTC) which (i) is compatible with phase theory and (ii) can straightforwardly account for control into adjoined and non-adjoined islands, two aspects which have proved to be problematic for the MTC.

The HTC works as follows: it is assumed that the lexicon hosts a referentially defective empty argument (EA) with unvalued $\varphi$-features which can be inserted freely into the numeration. In control structures, EA is part of the derivation; otherwise the Theta Criterion would be violated. In the course of the syntactic derivation, EA probes upwards to find a goal which can value EA's $\varphi$-features under Agree – hence, EA moves from phase edge to phase edge until a potential goal is merged into the next higher phase and licenses EA by valuing EA's $\varphi$-features and sharing its index with EA. In OC structures, the licensor is the controlling DP. In NOC structures, there is no licensor available, either because there is no syntactic controller in the derivation at all or because movement of EA into the controller's accessible domain is blocked independently (for instance, by island boundaries); therefore default valuation takes place in order to prevent the derivation from crashing. Since EA is not control-specific, the theory can moreover be extended to include *pro* and possibly anaphors as well. Depending on the type of goal involved in the underlying Agree relation, these forms would simply emerge as different realizations of EA.

If the HTC is on the right track, the answer to the locality question is this: control is more local than traditional PRO-based theories would have us believe, but less local than suggested

[47]As for discourse factors licensing logophoricity in general, cf., for instance, Kuno 1987; Fischer 2015, and others. For the relation between logophors and NOC in particular, cf. also Sundaresan (2012); Nishigauchi (2014); Charnavel (2015).

by the MTC. The advantage of the HTC is that it is compatible with phase theory, as EA moves until it is in the same accessible domain as its controller. At the same time, it allows us to retain a strict view of islandhood – after all, control into islands does not involve extraction out of them, but only movement to the edge of the highest phase within them. As a consequence, under the HTC it does not matter whether an island is adjoined or non-adjoined.

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