

On the Empirical Viability of the Movement Theory of Control

Tibor Kiss

The Movement Theory of Control (Hornstein 1999, 2003; Boeckx and Hornstein 2003, 2004) treats obligatory control as a special case of raising, subject to constraints on movement such as Shortest Move. This paper considers three phenomena which cast doubt on the conclusions of the Movement Theory of Control from a cross-linguistic perspective. Firstly, the behavior of control verbs under passivization does not follow the pattern predicted by the Movement Theory of Control. Passivized control verbs do not become raising verbs. Second, the Movement Theory of Control cannot account for the observation that passivized object control verbs do not become subject control verbs. Finally, we reconsider subject control verbs with optional NP objects, which have been dismissed as exceptional. The present paper contrasts the Movement Theory of Control with an alternative theory that distinguishes the identification of the controller from the distribution of the control verb's infinitival complement. It will be shown that such a selectional theory of control is well-equipped to handle the problems raised in the present paper.¹

Keywords: *control, movement, Shortest Move, Minimal Distance Principle, lexico-semantic control*

1 Introduction

A majority of arguments in the ongoing debate on the *Movement Theory of Control* (MTC) is based on English facts. Hornstein (1999, 2003), Culicover and Jackendoff (2001), Boeckx and Hornstein (2003, 2004), Jackendoff and Culicover (2003), and Landau (2003) are almost exclusively concerned with English. It is only in Landau (2004) that the behavior of control verbs in diverse languages is taken into account. Thus it has been tacitly as-

sumed that control in English can be carried over to other languages without much ado. This position is plausible in a semantic theory of control, which lends itself to the view that control patterns are not confined to a single language, but occur uniformly across languages.² For a syntactic theory of control, however, it should be an obvious conclusion that subtle changes in parameter distribution may lead to significant changes in syntactic structure. When looking into more languages, it becomes evident that the grammar of English imposes certain, sometimes purely accidental, limits and thus appears to be a bound too narrow for the empirical examination of the far-reaching predictions of the MTC. In the following, I will argue that several predictions made by the MTC are in fact not borne out when a wider variety of languages is taken into account. Consequently, I will focus on data from languages other than English, mostly on German, either to show phenomena which cannot be found in English, or to point out implications of cross-language distributions of certain patterns. I will consider three empirical phenomena:

- section 2 discusses subject control verbs under passivization in languages which allow impersonal constructions,
- section 3 discusses the role of the *by*-PP in object control verbs under passivization, and
- section 4 discusses the behavior of subject control verbs permitting optional objects, as e.g. English *promise*.

The MTC can be characterized as a unitary theory of control. It derives the identification of the subject of non-finite complements from the distribution of these complements. I will contrast this view with a theory of control and non-finite complementation which

separates the distributional properties of the infinitival complement from the identification of the complement's subject.

Such a non-unitary theory of control can be called a *Selectional Theory of Control (STC)*, since it assumes that control verbs select for verbal complements with thematic, yet unrealized, subjects. Thus, the STC caters for cases where an explicit controller cannot be found, as illustrated for English in (1a) and for German in (1b).³

(1) a. [_{NP} Any such attempt [to leave]] will be severely punished.

b. Es wurde gewünscht [zu tanzen].

it PASS-AUX-3SG wished to dance

'Somebody wished to dance.'

Jackendoff and Culicover (2003:519) have convincingly argued that the stipulation of a null controller in an additional specifier position inside the NP in (1a) is quite implausible. Yet the non-finite complements must conform to the same distributional restrictions as an infinitival complement of a control verb. In particular, it does not allow for the syntactic realization of a complement with non-thematic subject, as can be witnessed by the ungrammaticality of (2a,b).

(2) a.* Any such attempt [to be decided to leave] will be severely punished.

b.* Es wurde gewünscht [getanzt zu werden].

it PASS-AUX-3SG wished danced to PASS-AUX-INF

c. Es scheint [getanzt zu werden].

it seems danced to PASS-AUX-INF

'It seems that somebody is dancing.'

In the German example (2b), the expletive cannot be the controller. Its sole function is to mark the initial position in a verb-second clause (cf. (7) below). As in (2a), the verb does not allow the realization of a non-finite complement without a thematic subject. In this respect, the ungrammatical example (2b) should be compared to the grammatical example (2c). Again, the expletive is not a syntactic argument of *scheinen* ('seem') or the non-finite verb complement in (2c). As will be further elaborated in section 2, it is unclear how the MTC would handle the contrasts between (1a) and (2a), and (1b) and (2b), respectively, in the absence of a controller.⁴

Selectional theories of control have been presented in Lasnik and Fiengo (1974), Sag and Pollard (1991), Kiss (1992, 1994), Pollard and Sag (1994, chap. 3 and 7), as well as in Jackendoff and Culicover (2003), to name but a few. Selectional theories of control assume that one module is relevant for the selection of the non-finite complement, and another – which will be the control module in a narrow sense – is responsible for the identification of the controller. While the first module is syntactic in nature, the second module is mostly taken to be semantic.

The basic claim of the present paper is that a selectional theory of control is better suited to account for several data sets than a unitary theory of control such as the MTC. In the following discussion, I will conveniently call the unexpressed subject of a non-finite VP PRO, although neither the MTC nor its rivals assume that such an entity exists.

2 Subject Control under Passivization

The STC assumes that control is insensitive to structural changes. If the distribution of PRO is determined by a module of grammar which does not immediately constrain its

interpretation, it follows that structural conditions may affect a control verb so that its syntactic make-up is changed, without changing the selectional properties which yield the distribution of PRO.

As a case at hand, consider the behavior of control under passivization and the predictions made by the MTC. We assume that the theta role assigned to the subject of an active verb is not available syntactically if the verb is passivized, independent of the particular process which yields this detachment.⁵ Given the view of the MTC that the major difference between a control and a raising construction is the number of theta-roles borne by the matrix subject (cf. Boeckx and Hornstein 2004:445), we expect that a passivized subject control verb shares its syntactic distribution with an ordinary subject raising verb. To sharpen this point: According to the MTC, we expect control verbs to become raising verbs, given certain structural or lexical operations which change their ability to assign external thematic roles. However, this empirical prediction is not borne out by the facts. Despite its ungrammaticality, (3) can be derived in the MTC, as has been pointed out by Landau (2003:474-477).

(3) * John was hoped to win the game.

The derivation proceeds as indicated follows: *John* is merged as a subject of *to win the game*, and subsequently moves into the matrix subject position, just like the subject of the raising verb in (4).

(4) John seems to be winning the game.

According to the MTC, (3) should be grammatical and in addition should have the interpretation in (5), where the *for*-phrase indicates that the matrix subject in (3) is in fact only thematically related to the infinitival complement

(5) Somebody hoped for John to win the game.

Boeckx and Hornstein (2004:436f.) assume that the ungrammaticality of (3) can be derived from a constraint on passivization in English, whose effect is similar to *Visser's Generalization* (Bresnan 1982) in prohibiting subject control verbs from passivizing.⁶ Even if we acknowledge that this suggestion solves the empirical problem raised by (3), it does not solve the larger conceptual problem. It remains an accident of English grammar that the sole operation which would turn a control verb into a raising verb is prohibited. From this perspective, English seems to be the wrong language to test the validity of the predictions made by the MTC. German, however, suggests itself as a benchmark, since it freely allows the passivization of subject control verbs, as is witnessed in (6).

(6) a. Er hat zu kommen versprochen.

he has to come promised

'He has promised to come.'

b. Es wurde zu kommen versprochen.

it PASS-AUX-3SG to come promised

'Somebody promised to come.'

Note that the expletive *es* in (6b) is not a subject but a *positional marker* to indicate that the clause is verb-second. If it were a subject, it should be realized in the base-position of the

subject, but this is ungrammatical, as is illustrated in (7a), while the well-formed (7b) shows that the expletive occurs in (6b) to mark the verb in second position.

(7) a.* Dann wurde es zu kommen versprochen.

then PASS-AUX-3SG it to come promised

b. Dann wurde zu kommen versprochen.

then PASS-AUX-3SG to come promised

'Then somebody promised to come.'

Given that German allows free passivization of subject control verbs, the MTC predicts that subject control verbs can be turned into raising verbs under passivization in German. Example (8) should thus be grammatical with the interpretation given in (9).⁷

(8) *Der Mann wurde zu tanzen gewünscht.

the man PASS-AUX-3SG to dance wished

(9) Somebody wished for the man to dance.

As a matter of fact, (8) is robustly ungrammatical. In contrast to (8), passivizing the subject control verb yields an impersonal construction. This is illustrated in (10).

(10) Es wurde zu tanzen gewünscht.

it PASS-AUX-3SG to dance wished

The contrast between (8) and (10) is not just an idiosyncrasy of the verb *wünschen* ('wish') but carries over to all German subject control verbs that allow impersonal passives. Hence, all the verbs in (11) share their distribution with *wünschen* ('wish').

- (11) *ablehnen* ('refuse'), *anbieten* ('offer'), *beabsichtigen* ('intend'), *bedauern* ('regret'), *befürchten* ('fear'), *beschließen* ('decide on'), *bezweifeln* ('doubt'), *erwägen* ('consider'), *hoffen* ('hope'), *leugnen* ('deny'), *planen* ('plan'), *riskieren* ('risk'), *vereinbaren* ('agree'), *vergessen* ('forget'), *vermeiden* ('evade'), *versuchen* ('try'), *vorschlagen* ('propose'), *zusagen* ('confirm')

Interestingly, we still have a case of obligatory control in the sense of Hornstein (1999), as is made clear by the interpretation of (10) given in (12). We will return to this fact below.

- (12) Somebody wished to dance.

The derivation in (13) shows how the ungrammatical example (8) is derived in the MTC. The matrix subject merges as an argument of *zu tanzen* and moves subsequently into the matrix subject position.

- (13) [_{TP} der Mann [_{VP} [_{VP} ~~der Mann~~ zu tanzen] gewünscht wurde]

In its relevant details, (13) does not differ from (3). Its ungrammaticality cannot be deduced from a condition prohibiting subject control verbs to passivize. And given that control is taken to be a structural property which is only set apart from raising in the number of theta roles borne by the raised NP, blocking the derivation of ungrammatical examples like (8) remains a desideratum in the MTC.

How would the STC explain the ungrammaticality of (8)? The STC assumes that the syntactic selection of the non-finite complement of a control or raising verb is separated from the identification of the subject of the non-finite complement.⁸ According to the STC, both control and raising verbs select non-finite VPs. In this sense, raising and con-

control verbs form a common class.⁹ They vary, however, with respect to the conditions they impose on the unexpressed subject of the non-finite VP. While control verbs require the unexpressed subject of the non-finite VP to be referential, raising verbs impose less strict conditions. The differences in selection account for raising verbs taking idiomatic or expletive subjects, while control verbs do not.¹⁰ In HPSG (Pollard and Sag 1994, Kiss 1992, 1994), this specification is given in the SUBJ attribute of the VP, which forms part of the categorial make-up of verbs. Different specifications of the SUBJ attribute differentiate between control and raising verbs. So, the verbs in (11) – as well as *wünschen* ('wish') – select a VP whose SUBJ attribute specifies a referential NP.¹¹ The same mechanism accounts for the contrast presented in (1) and (2).

The selection of a particular VP-complement does not say anything about a possible identification of the VP's subject (or parts of it) with an argument of the control (or raising) verb. The control theory developed in Sag and Pollard (1991) crucially links the traditional view on control selection and control identification with the lexico-semantic view on control and derives control identification from semantic properties of the predicate.¹² In the case at hand, the thematic role of subject of the VP complement is identified with a particular role in the semantic contribution of the control verb, depending on a classification of control verbs into three different verb classes. This can be illustrated with *wünschen* ('wish'). Sag and Pollard (1991) assume that such verbs can be semantically classified as expressing an *orientation*, the other two classes being *commitment* and *influence*. The subject of of an *orientation*-verb receives the *experiencer* role, and PRO will be associated with the *experiencer*-role of the control verb.¹³ As the identification of PRO is dependent on the semantics of the predicate involved, the theory does not predict that the identification is

subject to changes determined by structural factors, such as passivization. Even if the verbs in (11) are passivized, the identification of PRO remains the same. The interpretation of (10) in (12) further illustrates that obligatory control should not be equated with ‘obligatory coreference with a syntactically present argument’. The distribution of control under passivization does not follow the pattern predicted by the MTC: The semantically determined control identification is not affected by a passivization of the control verb. The syntactic realization of its arguments, however, is. Passive does not allow the further syntactic realization of the phrase which receives the *experiencer*-role, and consequently, the PRO is identified with an unexpressed thematic role.

This view is even supported by English facts: similar constructions in English can be derived in the same way, if we assume that English crucially differs from German in requiring overt subjects. As an illustration consider (14).

(14) It was decided to leave.

As has already been mentioned by Landau (2003:476), the subject of *to leave* is controlled by an implicit argument of *decide*. This argument would be related to the subject in the active case, but is now unexpressed due to passivization. Since English requires an overt subject, an expletive is inserted in (14), but apart from that, the derivation of (14) mimics the derivation of (10): Pollard and Sag (1994:286) classify *decide* as a *commitment*-verb. Even if passivized, it selects a non-finite VP with an unexpressed referential subject whose index is identified with the *committer* role of *decide*.

It remains unclear how the MTC could account for the facts observed in (6) to (12). Given its appeal to a structural determination of control, the MTC assumes that ‘control

verbs' do not exist as a lexico-semantic class with its own syntactic repercussions. Since the major difference between raising and control is the additional role assigned, the MTC predicts passive to turn control verbs into raising verbs. As a result, ungrammatical constructions like (3) and (8) are wrongly analyzed as grammatical. The fully regular behaviour of German subject control verbs, as illustrated in (8) to (11), however, remains mysterious under the MTC since the remedy suggested by Boeckx and Hornstein (2004) to account for the English cases does not carry over to the verbs listed in (11).

3 Object Control and the *by*-Phrase

Violations of the *Minimal Distance Principle* (Rosenbaum 1967) pose a problem for the derivational interpretation of this principle as a consequence of *Shortest Move* in the MTC. Accordingly, verbs like *promise* are treated as exceptions, as can be witnessed in Boeckx and Hornstein (2003:272ff., 2004:440). In contrast to this view, I would like to claim that the so-called exceptions are just instances of a common configurational pattern that is not accounted for by the MTC. Among these instances, we find violations which occur as a consequence of passivization, and it can neither be claimed that the verb class undergoing passivization, nor that passivization itself is particularly exceptional. We will consider object control verbs like *persuade* to illustrate this point.

(15)a. Joan persuaded John to wash himself/*herself.

b. John was persuaded to wash himself.

c. John was persuaded by Joan to wash himself/*herself.

The subject of the infinitival complement in (15a) is obligatorily coreferent with the object of the control verb. The established coreference blocks a realization of the reflexive

herself. Nothing changes under passivization in (15b), since the sole realized argument of the control verb, the underlying object, becomes the subject, and still controls the subject of the reflexive. Things are less clear with the passivization given in (15c), where the underlying subject is realized as an object in a *by*-PP. The exact status of this PP in terms of its status as complement or adjunct is subject to debate. The *by*-PP is an optional phrase, which may be omitted, as e.g. in (15b). Assuming a derivational analysis of passivization, the correct structure for (15c) will be (16a). The crucial question, however, is how the incorrect structure (16b) can be blocked by the MTC. Example (16b) differs from (16a) in that the object of *persuade* is moved into subject position, but the subject of *wash* is moved into the object position of *by*.

(16)a. [_{TP} John was [_{VP} persuaded <John> by Joan [_{TP} <John> to wash himself]]]

b.* [_{TP} John was [_{VP} persuaded <John> by Joan [_{TP} <Joan> to wash herself]]]

In terms of *Shortest Move*, the object position of *persuade* and the object position of the *by*-phrase are equidistant.¹⁴ The derivation in (16b) proceeds just as smoothly as the derivation of the well-formed example (15c) in (16a). What is more, (16b) is not only ill-formed, but would also turn the verb *persuade* into a subject control verb, because the embedded subject is now controlled by the object of the *by*-phrase, i.e. the ‘logical subject’. Hence, it seems as if the MTC must somehow block the movement of the embedded subject into the object position of the *by*-phrase. This could be achieved by blocking movement of the complement subject into the object position of the *by*-PP. Currently, however, such a mechanism is not part of the MTC (cf. Boeckx and Hornstein 2003:274fn12). But things are even worse, because in some configurations, the apparently

offending movement is in fact necessary. Consider the following variants of passivizing a *subject* control verb in German in (17b,c).

(17)a. Der Mann wünschte, zu dem Treffen zu kommen.

the man wished to the meeting to come

'The man wished to join the meeting.'

b. Es wurde gewünscht, zu dem Treffen zu kommen.

it PASS-AUX-3SG wished to the meeting to come

'Somebody wished to join the meeting.'

c. Es wurde von dem Mann gewünscht, zu dem Treffen zu kommen.

it PASS-AUX-3SG by the man wished to the meeting to come

'The man wished to join the meeting.'

The verb *wünschen* ('wish') remains a subject control verb in all three examples given in (17). Once again, the pattern illustrated with *wünschen* ('wish') carries over to the list of verbs given in (11). How does the MTC account for the examples (17b) and (17c)? Example (17b) is problematic insofar as no subject is syntactically realized. We have already addressed this problem in section 2.

In (17c), the complement subject is coreferent with the object of the *von*-PP. If we assume with the MTC that the control relation is a reflex of movement, we have to concede that movement into the object position of the *von*-PP is in fact possible, and also, that it is necessary. Only a movement of the complement subject into the PP-object position can account for the fact that the complement subject of passivized *wünschen* ('wish') in (17c) is still controlled by the logical subject of the verb. But this conclusion yields a

paradoxical situation for the MTC. If one accepts that movement into the object position of the *by*-PP is generally possible to account for the control relation in (17c), one must also accept that the same movement is possible in (15c). Since this conclusion would entail a subject control reading of *persuade*, which is simply not present, the MTC has to block the movement in (15c), but then loses its ability to account for (17c).

A tentative solution to the problem posed by (15) and (17) would be to assume that the two pertinent landing sites (object of verb vs. object of *by/von*) are in fact not equidistant. Hence, the object of *by/von* could be targeted in (17c) because there is no available verbal object position. The object of *by/von* could not be targeted in (15c) because of the availability of the verbal object position. Note, however, that this account fails when subject control verbs with optional nominal objects are considered. As an illustration consider the German verb *zusagen* ('agree') in (18).

(18)a. Ich meine, dass das Paar ihm zusagte, bald zu heiraten.

I think that the couple him agreed soon to marry

'I think that the couple agreed with him to marry soon.'

b. Ich meine, dass ihm von dem Paar zugesagt wurde, bald zu heiraten.

I think that him by the couple agreed PASS-AUX-3SG soon to marry

'I think that the couple agreed with him to marry soon.'

In (18b), we find both positions filled. If the object position of the verb is classified as being closer than the object position of *von*, the complement's subject is forced to move into the verb's object position by *Shortest Move*. This would yield the derivation in (19), with the weird interpretation that *the couple agreed with him that he would marry*.

(19) * dass ihm von dem Paar zugesagt wurde , ~~ihm~~ bald zu heiraten

Hence, the correct analysis can only be predicted if the MTC assumes that both object positions are at least equidistant. For German, however, matters are even worse since one can present a variety of arguments that the *von*-phrase is closer than the verb's object position. We will not go into details here because the syntactic nature of *by/von*-phrases is generally not well understood.

Note that the STC does not face the aforementioned problems, since the control relationship is not taken to be structural but to be lexically coded as a relationship between two different arguments.¹⁵ Passive is notorious for not changing the argument structure of a verb, and hence the STC correctly predicts that whatever determines control relationships is not affected by passivization.

The *Minimal Distance Principle* is hence not just violated by “a handful of verbs” (Boeckx and Hornstein (2004:439f.)). The regular class of verbs given in (11) requires an identification of the complement subject with the object of the *von*-phrase after passivization. In terms of movement, this means that the complement subject must move into this object position. By the same reasoning, the MTC must explain why the same position is not targeted when object control verbs are passivized. Here, the subject of the complement is moved into the verb's object position, instead of targeting the object position of the preposition, although both positions are at least equidistant. A derivational interpretation of the *Minimal Distance Principle*, as given in the MTC, requires additional mechanisms to block the illicit movement illustrated in (16b), else it will incorrectly predict that object control verbs may become (logical) subject control verbs after passivization. Neither the verbs in (11) nor the large class of object control verbs in English or German, let alone

the passive operation itself can be placed in the domain of the periphery. Hence the MTC lacks an account for the regularities underlying (15) to (18). The pattern observed in here is the same as the one for nominalizations illustrated in Jackendoff and Culicover (2003:520). The control relationship is not affected by different realizations of syntactic arguments, as is illustrated below.¹⁶

(20)a. Bill ordered Fred to leave immediately.

b. Fred's order from Bill to leave immediately

In (20b), we find [_{PP} from Bill] intervening between the controller and the embedded subject. The MTC generally allows movement into a case position, and we have already established that PP objects can become controllers. Still (20b) retains the control behavior of (20a). If we assume that the two phrases (*Fred, Bill*) are at least equidistant, the control behavior in (20b) once again does not conform to the predictions of the MTC.

4 What Does It Mean to Be an Exception?

Proponents of the MTC take verbs like *promise* to be clearly exceptional. They are less clear in pointing out the rule pattern against which *promise* forms the exception. Section 3 has shown that the *by*-PP in passives has to be taken into account when control patterns are analyzed. We have established that the MTC has to consider the *by*-PP in participating in control relations. But if this view is accepted, the MTC must also accept that optional arguments play a role in control. Optional arguments enter into binding relations, as can be illustrated with examples from German, where many transitive verbs allow optional *dative* NP arguments.

(21)a. Er_i baute ein Haus für sich_i.

He built a house for self

'He built himself a house.'

b. Er_i baute ihm_j ein Haus für sich_{i/j}.

He built him a house for self

'He built somebody a house for himself./He built a house for himself on someone's behalf.'

(22)a. Er_i sagte etwas über sich_i.

He said something about self

b. Er_i sagte ihm_j etwas über sich_{i/j}.

He said him something about self

'He said something about himself to him./He told him something about himself.'

Reflexive binding differs from control in that the reflexive can be bound by various antecedents, as indicated through the grammaticality of both indexings in (21b) and (22b). How can we apply this observation to the control case? The MTC seems to predict that verbs taking optional arguments should also exhibit changes in control (cf. Hornstein 2003:29). The presumed behavior is indicated in (23).

(23)a. He_i V PRO_i to wash himself_i.

b. He_i V her_j PRO_j to wash herself_j/*himself_i.

c. He_i V her_j PRO_j to wash herself_j/himself_i.

The grammaticality pattern in (23a,b) illustrates the stronger claim, according to which the controller is always the closest element. The pattern (23a,c) aligns control to the bind-

ing case in (21) and (22), and thus allows both antecedents to be picked as controllers. It should be noted that nothing in the semantics of *promise* would prohibit the pattern (23b) or (23c), as can be witnessed by the fact that *promise* participates in so-called *control coercion* cases (cf. Pollard and Sag 1994:308-317):

(24)a. John promised Mary to wash himself.

b. John promised Mary to be allowed to wash herself.

Given that the MTC neglects a lexical influence on control, it seems to take the behavior in (23) to be the rule. Interestingly, though, most control verbs are not fickle in selecting a controller. Control verbs behaving like (23a,b) seem to be the exception, rather than the rule. Following Rosenbaum (1967), Hornstein (2003:29) lists the verbs *ask*, *beg*, and *get*, whose behavior patterns with (23a,b).

We can observe, however, that most languages which make use of a verb like *promise* show the ‘exceptional’ – i.e. *Shortest Move* violating – pattern found with its English kin instead of the ‘regular’ pattern suggested in (23). I have collected data from a variety of languages which allow non-finite complements of *promise*-type verbs. As an illustration, consider the following examples from Croatian (25), German (26), Hebrew (27), Icelandic (28), Japanese (29), Korean (30), Portuguese (31), and Turkish (32). Since the reflexive binding is not necessarily indicative, I have made the control pattern explicit by a translation with a finite complement in each case.

(25)a. Zoran_i je obećao Šimunu_j se_{i/*j} dobro oprati.

Zoran CL-AUX promised Šimun self carefully wash

‘Zoran promised Šimun to wash himself carefully.’

b. Zoran je obećao se dobro oprati.

Zoran CL-AUX promised self carefully wash

'Zoran promised to wash himself carefully.'

(26)a. Ulrich_i versprach Claudia_j, sich_{i/*j} gründlich zu waschen.

Ulrich promised Claudia self thoroughly to wash

'Ulrich promised Claudia to wash himself carefully.'

b. Ulrich versprach, sich gründlich zu waschen.

Ulrich promised self thoroughly to wash

'Ulrich promised to wash himself carefully.'

(27)a. Gil hivtiax le-Rina lishtof et acmo be-yesodiyut

Gil promised to-Rina to-wash ACC himself in-thoroughness

'Gil promised Rina to wash himself thoroughly.'

b. Gil hivtiax lishtof et acmo be-yesodiyut

Gil promised to-wash ACC himself in-thoroughness

'Gil promised to wash himself thoroughly.'

(28)a. Jón_i lofaði Marí_j að þvo sér_{i/*j} vandlega.

Jón promised Marí to wash self carefully

'Jón promised Marí to wash himself carefully.'

b. Jón lofaði að þvo sér vandlega.

Jón promised to wash self carefully

'Jón promised to wash himself carefully.'

(29)a. Haruki-wa Naoko-ni karada-wo yoku araw-u-to yakusokusi-ta.

Haruki-TOP Naoko-DAT body-ACC carefully wash-PRES-COMP promise-PAST

'Haruki promised Naoko to wash himself carefully.'

b. Haruki-wa karada-wo yoku araw-u-to yakusokusi-ta.

Haruki-TOP body-ACC carefully wash-PRES-COMP promise-PAST

'Haruki promised to wash himself carefully.'

(30)a. Jongbok_i-un Yan_j-ekey caki_{i/*j}-lul cosimsurepkey sissul-kes-ul

Jongbok-TOP Yan-DAT self-ACC carefully wash-NMZ-ACC

yaksok-hay-ss-ta

promise-CAUS-PAST-DECL

'Jongbok promised Yan to wash himself carefully.'

b. Jongbok-un caki-lul cosimsurep-key sissul-kes-ul yaksok-hay-ss-ta

Jongbok-TOP self-ACC carefully wash-NMZ-ACC promise-CAUS-

PAST-DECL

'Jongbok promised to wash himself carefully.'

(31)a. O Pedro_i prometeu a Marta_j de se_{i/*j} lavar seriamente.

The Pedro promised to Marta to self wash seriously

'Pedro promised Marta to wash himself carefully.'

b. O Pedro prometeu de se lavar seriamente.

The Pedro promised to self wash seriously

'Joel promised to wash himself carefully.'

(32)a. Deniz_i Tolga_i`ya tertemiz yıkanmaya_{i/*i} söz verdi.

Deniz Tolga-DAT thoroughly-clean self-wash word gave

'Deniz_i promised Tolga to wash himself carefully.'

b. Deniz tertemiz yıkanmaya söz verdi.

Deniz thoroughly-clean self-wash word gave

'Deniz_i promised to wash himself.'

It is hard to believe that all these diverse languages make use of a highly frequent, yet awkwardly exceptional construction.¹⁷

Boeckx and Hornstein (2003:273f.) try to account for the putatively exceptional status of *promise* by assuming that the object of *promise* is in fact a PP, headed by a covert preposition.¹⁸ I cannot see how the 'exceptional' status of *promise* should follow from this assumption. It would be a valid conjecture only if prepositional objects could not control. Under such a premise, the language learner would assume that the object of *promise* is in fact nominal, and hence may allow control. However, we have clearly established that control through the object of PP is a viable option in English, German, as well as universally. Apart from control of the *by*-phrase in passives, as illustrated in (17c) and (20b), the verbs *commit* and *appeal* show controlling prepositional objects (Landau 2004:7). An additional verb with PP-object control is *impose*, as is illustrated by (33).¹⁹

(33) Shamron imposed upon Gabriel to remain in Israel until the opening day of Radak's testimony, and Gabriel, though he was anxious to return to Venice, reluctantly agreed.

I am not aware of any claim that the acquisition of *commit*, *appeal*, or *impose* is significantly delayed. Hence, it seems sound to assume that the language learner should not separate nominal from prepositional objects as controllers. In fact, Boeckx and Hornstein (2003:274) admit that prepositional objects can control. It remains hence mysterious what should be won by assuming a hidden preposition as an object of *promise*. A second problem emerges from a cross-linguistic perspective if Boeckx and Hornstein's stipulation of a hidden preposition were taken seriously. If it is the hidden preposition which leads to a confusion of the language learner, the MTC would predict that acquiring the properties of *promise*-type verbs proceeds more smoothly in languages like Portuguese, where an overt prepositional object is employed (cf. (31a)).²⁰

Finally, it should be noted that *promise* might be the only English subject control verb selecting an NP object. But this observation does not turn a particular subcategorization frame into an exception cross-linguistically. Bech's comprehensive treatment of German infinitives lists a total number of 92 different subject control verbs (Bech 1955:101-109). From these 92 verbs, 14 select an optional NP object, which is marked with the dative case.²¹ This is not a figure which substantiates the concept of an exception. It strongly defies the claim by Boeckx and Hornstein (2003:274) that 'one must make sure that [*promise*] is not just another regular control predicate.' All these verbs retain their control properties when the object is syntactically realized. As we have illustrated with (21) and (22), optional dative arguments participate in coindexations, refuting possible claims that dative arguments generally do not participate in binding.

Summing up, the MTC should provide a clear definition of what it means to be the rule before it can be claimed that verbs like *promise* form an exception to this rule. The rule

pattern given in (23) seems a very likely candidate for a rule behavior predicted under the MTC. However, this pattern is an exception in the languages of the world. The lexico-semantic approach assumes that control relationships remain constant under operations like passive and also under operations which add syntactic arguments to a predicate while leaving their semantics intact. Given that the pertinent ties are lexical and semantic, there is nothing mysterious with the pattern observed with *promise* and its kin, and lexico-semantic approaches to control such as Sag and Pollard (1991) or Jackendoff and Culicover (2003) have no problem in treating *promise* together with the large classes of *promise*-type verbs in other languages.

Further arguments against the exceptional character of *promise* can be deduced from the fact that the behavior of *promise*-verbs remains constant across languages. Should we assume that this uniformity is due to a distribution of a peripheral construction across languages, or to the uniform semantics of the construction?

5 Summary

We have presented three additional arguments against the *Movement Theory of Control* (MTC). The first argument concerns the behavior of control verbs under passivization. We have shown that Boeckx and Hornstein's (2004) treatment of control under passive rests on a property of English syntax that does not carry over to other languages. Given that the MTC should not just account for the distribution of control in a single language, a more general account of control under passivization is required to substantiate the MTC. The *Selectional Theory of Control* (STC), on the other hand, does not face any problems with the behavior of control verbs under passivization. The second argument con-

cerns the status and syntactic distribution of the *by*-PP in passivized object control verbs. We have illustrated that the configurational pattern induced by passivization and the realization of the *by*-PP mimics the configuration found with *promise* – a configuration which is treated as an exception in Boeckx and Hornstein (2003, 2004). Contrary to this position, a justification for treating passive and object control verbs as exceptional cannot be given. Also, a dilemma emerges if movement into the object position of the *by*-PP is prohibited: If this movement would be blocked, the MTC would not be able to account for the distribution of *by*-PP occurring in passives of subject control verbs in languages like German. The final argument concerned the conceptual nature of the exception itself. We have argued that taking *promise* to be an exception requires a characterization of what is considered to be the rule. The most plausible rule pattern given does not match the behavior of control verbs. Moreover, the putative exception occurs in a wide variety of languages, and also occupies large subclasses of subject control verbs in languages like German. As the relevant construction is very frequent as well as surprisingly invariant across languages, it seems implausible to assign it to the periphery of grammar.

Boeckx and Hornstein (2004:431) have remarked that “the reductionist impulse behind the Movement Theory of Control (MTC) fits snugly with the explanatory ambitions of the Minimalist Program.” They continue that “reduction *always* enhances explanation and so is *always* methodologically favoured *if empirically viable*” (*ibid.*). We must conclude, however, that the MTC cannot enhance explanation as long as it cannot meet the empirical challenges emerging from the constructions presented.

References

- Bech, Gunnar. 1955. *Studien über das deutsche verbum infinitum*. 2nd Edition (1983) Tübingen: Max Niemeyer Verlag.
- Boeckx, Cedric, and Norbert Hornstein. 2003. Reply to 'Control is Not Movement'. *Linguistic Inquiry* 34:269-280.
- Boeckx, Cedric, and Norbert Hornstein. 2004. Movement under Control. *Linguistic Inquiry* 35:431-452.
- Bresnan, Joan. 1982. Control and Complementation. In *The Mental Representation of Grammatical Relations*, ed. Joan Bresnan, 282-390. Cambridge, Mass.: MIT Press.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Dordrecht: Foris Publications.
- Culicover, Peter W., and Ray Jackendoff. 2001. Control is Not Movement. *Linguistic Inquiry* 32:493-512.
- Jackendoff, Ray, and Peter W. Culicover. 2003. The Semantic Basis of Control in English. *Language* 79:517-556.
- Hornstein, Norbert. 1999. Movement and Control. *Linguistic Inquiry* 30:69-96.
- Hornstein, Norbert. 2003. On Control. In *Minimalist Syntax*, ed. Randall Hendricks, 6-81. Oxford: Blackwell Publishing.
- Kiss, Tibor. 1992. Variable Subkategorisierung. *Linguistische Berichte* 140:256-293.
- Kiss, Tibor. 1994. Obligatory Coherence: The Structure of German Modal Verb Constructions. In *German in Head-Driven Phrase Structure Grammar*, ed. John Nerbonne, Klaus Netter and Carl J. Pollard, 71-107. Stanford: CSLI Publications.
- Landau, Idan. 2003. Movement Out of Control. *Linguistic Inquiry* 34:471-498.

-
- Landau, Idan. 2004. Movement-Resistant Aspects of Control. Ms. Ben Gurion University, August 2004.
- Lasnik, Howard, and Robert Fiengo. 1974. Complement Object Deletion. *Linguistic Inquiry* 5:535-571.
- Pollard, Carl J., and Ivan A. Sag. 1994. *Head-driven Phrase Structure Grammar*. Chicago: University of Chicago Press.
- Reis, Marga, and Wolfgang Sternfeld. 2004. Review of 'Infinitives: Clause Structure and Restructuring by Susanne Wurmbrand'. *Linguistics* 42:469-508.
- Rosenbaum, Peter. 1967. *The Grammar of English Predicate Complement Constructions*. Cambridge, Mass.: MIT Press.
- Sag, Ivan A., and Carl J. Pollard. 1991. An Integrated Theory of Complement Control. *Language* 67:63-113.

Tibor Kiss

Sprachwissenschaftliches Institut

Ruhr-Universität Bochum

44780 Bochum

Germany

tibor@linguistics.rub.de

- ¹ For comments, suggestions, and the provision of data, I would like to thank Artemis Alexiadou, Leila Behrens, Kook-Hee Gill, Takao Gunji, Georg Happe, Norbert Hornstein, Katja Keßelmeier, Sandra Krüger, Idan Landau, Stefan Müller, Kays Mutlu, Nino Šimunić, Jan Strunk and Sten Vikner. Special thanks to Katarina Klein and Joan Maling for their detailed comments on a draft version of this paper.
- ² Cf. Jackendoff and Culicover (2003:519) on an explicit statement to this effect.
- ³ The following glosses are employed in the following: ACC: Accusative, CAUS: causative morpheme, CL-AUX: proclitic auxiliary, COMP: Complementizer, DAT: Dative, DECL: declarative mood, NMZ: Nominalizer, PASS-AUX-INF and PASS-AUX-3SG: infinitive and 3sg form of passive auxiliary, PRES and PAST: present and past tense, TOP: Topic marker.
- ⁴ Boeckx and Hornstein (2003:277) claim that (1a) is an instance of non-obligatory control, but how can this assumption explain the ungrammaticality of (2a)?
- ⁵ The following presentation is fully compliant with a lexical theory of passive as suggested in Bresnan (1982) or Pollard and Sag (1994), or with the theory of passivization alluded to in Boeckx and Hornstein (2004).
- ⁶ Boeckx and Hornstein (2004) assume that only verbs which case-mark their complement allow passivization. This assumption applies to example (3) since *hope* does not case-mark its object, as is illustrated by the ungrammaticality of **John hoped it*. It should be noted, however, that this explanation makes crucial use of the *ad-hoc* assumption that CPs are case-marked (Boeckx and Hornstein 2004:436). Further problems with Boeckx and Hornstein's proposal are presented in Landau (2004:35).
- ⁷ The ungrammatical raising in (8) under passivization must not be confused with cases of so-called *long-distance passive* in German, which is considered marginally acceptable, depending on a variety of factors. An example is given in (i) below.

- (i) ??Der Wagen wurde zu reparieren versprochen.
 the car PASS-AUX-3SG to fix promised
 ‘Somebody promised to fix the car.’

In (8), the raised element is not case-marked by its verb. In a case of long-distance passivization, the passivization seems to strangely affect the case-marking properties of embedded verbs. The example in (i) thus contrast with the ungrammatical example in (8) in that the raised element in the latter example receives case in its landing position while the raised element in (i) should already have received case in its base position, but still is moved into another case position. Most speakers of German do not accept cases of long-distance passivization and would instead prefer an impersonal construction, as illustrated in (ii). For a recent discussion of the status of long-distance passivization, cf. Reis and Sternefeld (2004).

- (ii) Es wurde versprochen, den Wagen zu reparieren.
 it PASS-AUX-3SG promised the car to fix
 ‘*Somebody promised to fix the car.*’

- ⁸ Cf. also Boeckx and Hornstein (2003:271).
- ⁹ Boeckx and Hornstein (2004:445) criticize traditional theories of control which sharply distinguish control from raising. They remark that theories of control must relate control and raising, i.e. must assume that both phenomena share a common core. The STC is not only fully compliant with this view, but in fact has reached this conclusion much earlier than the MTC, cf. Kiss (1992, 1994), Pollard and Sag (1994).
- ¹⁰ A detailed theory of the selection of unexpressed subjects of non-finite VPs in HPSG can be found in Sag and Pollard (1991), Kiss (1992, 1994), and Pollard and Sag (1994, chap. 3 and 7).
- ¹¹ There is nothing arcane in the selection of the subject of the non-finite complement of a control or raising verb. This assumption could easily be recast in terms of the *Minimalist Program* by assuming a syntactic place-holder in the specifier position of the VP, which would be exempt from a phase-theoretic spell-out and hence would be available for selection by the c-commanding verb. Note however that the HPSG-theory of non-finite complementation does not assume and does not require that the subject of the non-finite complement be realized syntactically.

-
- ¹² The control theory developed in Sag and Pollard (1991) is thus a possible instantiation of a standard control module, as e.g. required by Landau (2003:473). Its existence contrasts Boeckx and Hornstein's (2004:433) claim that "the details of the control module – are left completely unspecified."
- ¹³ A similar proposal is presented in Jackendoff and Culicover (2003).
- ¹⁴ This has been pointed out to me by Norbert Hornstein.
- ¹⁵ The present paper will not deal with adjunct control. A treatment of adjunct control in terms of structural conditions seems quite plausible. However, a variety of crucial factors remain unclear as yet. The MTC has not yet been able to show how to block certain illicit readings as has been discussed in Culicover and Jackendoff (2001). Chomsky (1981:323f.) has already illustrated that adjunct control shows patterns which clearly differ from complement control patterns, as can be illustrated with the following case of adjunct control by an expletive:
- (i) It rained after snowing.
- ¹⁶ These examples are Jackendoff and Culicover's examples (5a, b).
- ¹⁷ The frequency properties of *promise*-type verbs can be illustrated with a sample from a Swiss-German news corpus. The sample of 28 million words contained approximately 330 occurrences of the infinitival control reading of *versprechen*. Although *versprechen* is a polyvalent verb and occurs in at least five different major subcategorization frames (infinitival control, infinitival modal, finite complement, nominal complement, inherently reflexive), the figures for the infinitival control readings are eleven times higher than the average occurrence of a word in the sample.
- ¹⁸ Boeckx and Hornstein (2003:274) try to relate the behavior of *promise* to the behavior of *seem*, which allows optional *experiencer* arguments embedded in a preposition, while subject-to-subject raising skips this position. They seem to suggest that this position cannot be a possible landing site for movement. It should be noted that experiencer arguments of *seem*-type verbs are realized as NPs and not as PPs, and should thus be legitimate landing sites. The STC assumes that raising is not movement, but again selection and hence does not have to account for this additional violation of *Shortest Move*.

- ¹⁹ The example is taken from the novel *A Death in Vienna* (2004), Signet (paperback edition) p. 363 by Daniel Silva. I would like to thank Joan Maling for the provision of this example.
- ²⁰ The same considerations apply to French, Italian, and Spanish.
- ²¹ In fact, Bech (1955) lists a total number of 108 different subject control verbs. Some of these verbs are archaic. Bech also does not distinguish between control and raising, and misclassified several object control verbs which became subject control verbs due to control coercion.