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William D. Davies & Stanley Dubinsky (eds.), *New horizons in the analysis of control and raising* (Studies in Natural Language & Linguistic Theory 71). Dordrecht: Springer, 2007. Pp. x + 347.

Reviewed by GLYN HICKS, University of Southampton

Control and raising have been a hotbed for research since the dawn of generative syntax. Furthermore, as William Davies and Stanley Dubinsky note in their introduction to *New horizons in the analysis of control and raising*, these two constructions have driven and shaped theoretical developments throughout the classical period of generative syntax. The paradigm shift from Government and Binding (GB) theory to early Minimalism was perhaps less turbulent for raising and control than for other modules of the grammar, like Case and binding. Thus, in Chomsky & Lasnik (1993), the distribution of PRO was no longer determined by the PRO theorem, but by PRO's null Case feature; null Case positions, however, were stipulated to cover the ungoverned subject positions of the previous GB framework. As for raising, the representational requirement for A-traces to be locally bound was transposed to derivational locality constraints on a copy-based theory of movement. Assumptions concerning θ -role assignment – a crucial component of the control/raising distinction – were more or less carried over from GB.

The fact that Minimalism appeared capable of comfortably accommodating control and raising may have obscured a more 'Minimalist' question: is the raising/control distinction empirically motivated, or merely a remnant

of previous Principles and Parameters models? In recent Minimalism, this issue has been brought to the fore by the lively ongoing debate between Norbert Hornstein and Idan Landau, following Hornstein's (1999, 2000) movement theory of control (MTC). This is the theoretical context in which the editors have positioned this collection, with all the authors generally adopting a broad Minimalist approach. On an empirical level, it seeks to add further data to the existing body in order to deepen our understanding of control and raising phenomena. The book is organised into five thematic sections. Part I, 'New horizons in the analysis of control and raising', consists of the editors' introduction ('Looking out over the horizon'). Part II, 'New views of raising', is comprised of three very different contributions on raising constructions. Part III contains three papers on 'Raising or control in Greek', and part IV, three papers on 'Control in Romance' (although only Romanian and Brazilian Portuguese feature). The four articles in part V, 'Extensions and alternatives to the MTC', deal with the ability of the MTC to account for control phenomena. The book's title is surprisingly vague, considering that some recalcitrant issues in control and raising, including the status of copy raising and *tough*-movement, do not feature.

Part II opens with Ivy Sichel's 'Raising in DP revisited'. It is generally assumed that control, but not raising, is permitted within nominals taking an infinitival complement. Employing diagnostics associated with clausal raising in English – which typically fail within English Determiner Phrases (DPs) – Sichel argues that a range of DPs in Hebrew headed by nouns such as 'chance' and 'tendency' (cf. (1)) do involve raising, contrasting their empirical properties with those of DPs headed by nouns related to control verbs (like the Hebrew equivalent of 'attempt').

- (1) [ha-netiya Sel te'oriot lihiyot nexonot] yedu'a le-kulam
 the-tendency of theories to-be correct known to-all
 'The tendency for theories to be correct is known to all.' (Hebrew)

For example, unlike in English, expletives and idiom chunks which can only be thematically licensed in the embedded clause are permitted in the post-nominal genitive position. Sichel thus argues that the genitive DP must have raised from the infinitival clause.

Christopher Hirsch & Ken Wexler's contribution, 'The late development of raising: What children seem to *think* about *seem*', introduces experimental evidence into the MTC debate. Hirsch & Wexler lay out the empirical predictions of a number of competing accounts for the delay in children's acquisition of raising constructions, focusing on Wexler's (2004) Universal Phase Requirement, which states that children until about age seven treat all kinds of *v*Ps as phases, including unaccusative and passive *v*Ps. (In the adult grammar, a raising verb *v*P is non-phasal, allowing raising of the embedded subject without resulting in a violation of Chomsky's (2000) Phase Impenetrability Condition.) Using experimental data from comprehension tests on

seventy children, the authors provide compelling evidence for a relationship between the acquisition of raising and passive constructions. In raising constructions with *seem*, children's performance in comprehension tests is generally only around chance level until around age seven. In comprehension tests for passive constructions, similar results are found. This support for Wexler's Universal Phase Requirement deserves the attention of theoretical syntacticians, some of whom have found the independent evidence for the phasehood of vP unconvincing.

James H. Yoon's paper, 'Raising of major arguments in Korean (and Japanese)', aims to settle recent debate concerning whether Korean and Japanese instantiate subject-to-object raising, or whether the putatively raised DP is externally merged within the main clause, cf. (2).

- (2) Cheli-nun Yenghi-lul yenglihay-ss-ta-ko mitnun-ta
 Cheli-TOP Yenghi-ACC smart-PST-DECL-COMP believe-DECL
 'Cheli believes Yenghi to have been smart.' (Korean)

Yoon adduces a range of evidence from Korean that appears to show quite convincingly that the traditional raising explanation must be wrong; at least, the construction does not show empirical properties similar to English Exceptional Case-Marking (ECM) constructions (being less restricted in terms of locality and permitting non-subjects to 'raise' into the matrix clause). Nevertheless adopting a movement analysis, Yoon argues that what is raised is not the subject of the complement clause but a 'Major Subject': a nominative which is not assigned a θ -role by the main verb of its clause and which occupies a structurally higher position than the grammatical subject. Korean ECM thus requires a complement containing a Major Subject. The Major Subject is coindexed with a pronoun in the complement clause, which will typically (although not exclusively) be a null pronoun in the grammatical subject position, as exemplified in (2).

In rather stark contrast to the diverse papers in part II, part III has a much narrower empirical focus. The first paper in this part, George Kotzoglou & Dimitra Papangeli's 'Not really ECM, not exactly control: The "quasi-ECM" construction in Greek', presents data from Greek, which resemble Yoon's Korean raising-to-object data in that the complement clause may be finite and the putatively raised DP can be nominative or accusative.

- (3) i epivates perimenan o kapetanos/kapetanio
 the passengers-NOM expected-3PL the captain-NOM/captain-ACC
 na ferthi me aksioprepia
 SUBJ behave-3SG with dignity-ACC
 'The passengers expected the captain to behave with dignity.' (Greek)

Kotzoglou & Papangeli advocate a control analysis, hinging on the argument that the 'raised subject' is externally merged as an object in the main clause and controls a null pronoun (*pro*) in the complement clause. The

strongest empirical evidence for *pro* in the complement clause comes from the Case-marking of agreeing modifiers or predicates: even where the putatively raised subject receives accusative case, an agreeing modifier or predicate in the embedded clause is marked as nominative, suggesting that the relation is mediated by a nominative *pro*. Finally, Kotzoglou & Papangeli relate the absence of true ECM in Greek to its lack of structural Case.

It is slightly disappointing, given the papers to follow, that Kotzoglou & Papangeli do not provide a more extensive discussion of the properties of the control relation between the accusative DP and *pro* and the mechanisms that establish it. Konstantia Kapetangianni & T. Daniel Seely's 'Control in Modern Greek: It's another good move' and Vassilios Spyropoulos's 'Finiteness and control in Greek' offer rather different Minimalist analyses of subjunctive control clauses in Greek, which in some instances exhibit properties typical of obligatory control (OC) clauses, and in others show properties that characterise non-obligatory control (NOC) clauses. Kapetangianni & Seely provide a new take on the classic GB analysis of these data, attributing the distinction between OC and NOC to the type of null subject found in the subjunctive clause: the presence of PRO results in OC, whereas *pro* triggers NOC. Adopting the MTC, Kapetangianni & Seely reduce this distinction to the completeness of Agr's ϕ -feature specification in the subjunctive clause. If the matrix predicate selects a ϕ -complete Agr, Agr checks nominative Case on the embedded clause subject, permitting *pro*. If the matrix predicate selects a ϕ -incomplete Agr, the embedded subject cannot check its Case feature and hence raises into matrix subject position. This eliminates a stipulated distinction between the Case of PRO and *pro*, though little else appears to hinge on adopting the MTC over a more traditional Minimalist approach. Some counterintuitive stipulations are required elsewhere, however: the distinction between predicates selecting ϕ -complete/ ϕ -incomplete Agr is not supported by any morphological distinction between the two types of clause. Furthermore, as Kotzoglou & Papangeli report, in the OC clauses, Case agreement data support the presence of a null nominative subject. Kapetangianni & Seely are forced to stipulate that ϕ -incomplete Agr checks the Case of a modifier, but not of the subject DP.

The Case agreement data lead Spyropoulos to argue that nominative Case is checked even in OC contexts, and to extend the empirical scope of control to finite domains (since subjunctive clauses show full morphological agreement). Importantly, supported by the fact that Greek subjunctives permit either a null controlled subject or an overt nominative subject, Spyropoulos argues that control is not a property exclusive to PRO and that a controlled *pro* is the subject of an OC subjunctive. (He also suggests that certain overt pronouns can be controlled in Greek.) Control properties of Greek subjunctive clauses are argued to coincide with the temporal properties of the clause, an approach noted but ultimately rejected by Kapetangianni & Seely (on the basis of data that Spyropoulos contests). Indeed, Spyropoulos takes

care to assess the competing claims made by Kapetangianni & Seely, though much of this takes place in the footnotes.

Part IV, which is concerned with control in Romance, begins with Gabriela Albiou's 'Moving forward with Romanian backward control and raising'. The paper uses evidence from OC subjunctive (sbj) constructions in Romanian to argue for a version of MTC. Just like Greek, Romanian permits OC into a subjunctive complement, though the controller (or its pronounced copy) may occupy one of a number of positions within the embedded or matrix clause:

- (4) (Victor) încearcă (Victor) [să cînte (Victor) la trombon
 (Victor) try.PRES.3SG (Victor) [SBJ sing.3SG (Victor) at trombone
 (Victor)]
 (Victor)]
 'Victor is trying to play the trombone.' (Romanian)

Albiou claims that Landau's (2000, 2003) Agree-based alternative to the MTC is incompatible with the Romanian data, contending that the optional positions in (4) are movement positions. According to Albiou, a movement analysis is to be preferred on the basis of what appear to be quite compelling arguments that subjunctive OC clauses are non-phasal. However, additional assumptions are required to fit the data to the MTC. Within the non-phasal subjunctive clause, Agree between the raised DP and T fails to check the DP's Case feature since T is defective (not selected by a phase head). Once *v* in the main clause merges, its θ -role is discharged at long-distance (i.e. not *v*P-internally) via Agree with the caseless DP in the subjunctive clause. Finally, upon merger of matrix T, T probes the caseless DP. Which copy of the DP is pronounced depends not on morphosyntactic but on pragmatic factors (related to information structure).

'Agreement and flotation in partial and inverse control configurations' by Cilene Rodrigues also adds to the armoury of the MTC, providing an account for partial control effects. (Landau (2000) breaks OC down into exhaustive and partial control, claiming that the properties of partial control cannot be derived from the MTC.) Rodrigues provides data from Romance showing that partially controlled PRO fails to trigger ϕ -feature agreement on past participles. Agreement is determined by the controller, whose interpretation is singular, while PRO may refer to a semantically plural entity:

- (5) A vítima quer se encontrar
 the victim-FEM.SG wants SE meet-INF
 bêbada / *bêbadas / *bêbado / *bêbados
 drunk-FEM.SG *drunk-FEM.PL *drunk-MASC.SG *drunk-MASC.PL
 'The victim wants to meet (with somebody else) drunk.' (Portuguese)

Rodrigues concludes that OC PRO cannot differ in number and gender features from its controller (a problem for both the MTC and Landau's

Agree-based account) and proposes a novel movement-based account in which a *pro* is adjoined to the DP controller in the base position, reminiscent of Kayne's (2002) analysis of pronouns and their antecedents. From within this complex DP, the controller first raises into the canonical subject position (SpecTP) of the embedded clause and then into matrix SpecTP via a θ -position in the matrix clause. Since it is (a copy of) the controller rather than *pro* that occupies the embedded SpecTP, the controller governs the adjectival agreement.

Marcello Modesto's 'Null subjects in Brazilian Portuguese and Finnish: They are not derived by movement' reports that both Brazilian Portuguese and Finnish have null subjects of finite embedded clauses that show the hallmarks of OC and are typically controlled by the matrix subject. Modesto presents evidence against a raising analysis for this construction. One of his most intriguing arguments is that (*wh*-)movement of the object in the matrix clause renders the matrix object a possible controller for the embedded null subject (either in addition to or to the exclusion of the matrix subject). Modesto's analysis of the phenomenon involves positing a functional projection (FP) in the left clausal periphery. In Brazilian Portuguese, SpecFP is filled by a grammatical topic. An embedded null subject is licensed by being A'-bound by the matrix subject that has raised into SpecFP. Accordingly, English fails to permit null finite embedded subjects due to an absence of SpecTP-to-SpecFP movement. When a matrix clause object in Brazilian Portuguese undergoes A'-movement, it must be via SpecFP, which results in the object being the only suitable controller of the null embedded subject.

While the contributions in parts I–IV have mixed implications for the MTC, to say the least, part V more directly addresses the issues relating to this theory. Assuming the MTC, Cedric Boeckx & Norbert Hornstein's 'On (non-)obligatory control' advances the *pro* analysis of NOC, with the aim to explain what rules out *pro* (and thereby NOC properties) in OC contexts. Extending Hornstein's (2000) analysis of Binding Theory Condition B, the authors argue that pronouns are employed only when movement cannot establish the relevant relation. This gives the right result when the movement is blocked by an absolute barrier (e.g. a phase/clause boundary), but not when blocked due to Minimality. In (6), movement is blocked but *pro* remains impossible:

(6) John_i persuaded Mary [_t*_i/*pro**_i to leave]

Boeckx & Hornstein pursue a parsing account for (6). When the parser encounters the empty subject position, the preference is for a trace/copy over *pro*. This predicts complementarity between OC PRO/trace and *pro*, irrespective of interpretation. Given that this prediction is not always borne out, Boeckx & Hornstein claim that non-complementarity may arise due to competing demands on the parser (trace over *pro* versus a preference for fixing the interpretation of pronouns early in the parse). The implications are

intriguing and far-reaching, requiring further attention. For example, Boeckx & Hornstein suggest that the parsing explanation can capture binding effects standardly assumed to be determined by the grammar (e.g. the unavailability of local non-c-commanding antecedents for reflexives).

Michael Barrie's paper, 'Control and *wh*-infininitivals', offers more direct support for the MTC, arguing that OC (but not NOC) into *wh*-infininitivals is derived by movement of the controller. Distinguishing between OC and NOC (generic) control in the subset of control types that permit *wh*-infininitivals, Barrie argues that movement into the matrix clause (within an MTC analysis) exhausts the escape hatch in the embedded clause, rendering further extraction impossible, cf. (8). In NOC, which does not involve movement, extraction is possible due to the free escape hatch, cf. (7).

(7) Which shares can John's new program figure out when to buy? (NOC)

(8) *Which restaurant does John know when to meet at? (OC)

For Barrie, the CP layer in control infinitivals is reduced, containing only the functional projections of Fin(iteness)P and WhP, and not the higher projections of a cartographic approach. The controller is argued to move from the embedded clause into the matrix via SpecFinP; this blocks *wh*-extraction from the embedded clause, also via SpecFinP. Though the issue is not discussed, this analysis must have implications for the A/A' distinction, given that both A-movement and A'-movement are required to target SpecFinP, and that A-movement via an A'-position would traditionally be ruled out as Improper Movement. To me, many of the important contrasts between OC and generic control that Barrie presents are also more subtle than his judgements indicate. Further, the potentially critical fact that in (7) an object is extracted, as opposed to an adjunct in (8), is not discussed for this and similar contrasts.

Following the two pro-MTC papers, Johan Rooryck's 'Control via selection' aims to show that the MTC cannot capture significant generalisations concerning semantic distinctions between different classes of OC. Rooryck focuses on 'variable but local control', instantiated by OC verbs that permit 'subject or object control' (and also split control). Rooryck argues that all of the variable but local control verbs involve requesting or commitment to the transfer of a Theme after the reference time (e.g. *offer*, *promise*, *ask*). The author claims that the control properties for this verb class are derived by selection, and more specifically from its event structure. He determines three subclasses (subject-or-object control, subject-to-object control shift, and object-to-subject control shift), drawing semantic generalisations among them and across them, arguing that each control type corresponds to a distinct semantic class.

Davies & Dubinsky give the final word in this book to Idan Landau. In his contribution, 'Movement-resistant aspects of control', Landau defends his

Agree-based control theory with some gusto in response to the criticism by Hornstein. Landau first targets the MTC's contention that the Minimal Link Condition governs control (as a subcase of movement). Like Rooryck, Landau draws attention to some of the complexities involved in control shift, where in the absence of an object, for example, a verb typically instantiating object control shifts to subject control. Unlike Rooryck, Landau does not attempt a systematic account, but arrives at the same conclusion that control shift is very difficult for the MTC to deal with, advocating a fine-grained examination of the semantic structure of control verbs. In this paper, Landau defends himself against a battery of empirical counterarguments provided by Hornstein. The discussion is typically enlightening, revealing theoretical and empirical complications and many issues that demand future investigation. In some cases, Landau candidly accepts that his theory fares no better than the MTC, but he succeeds in giving a flavour of the sacrifices that must be made in one area of the grammar to salvage economy in another.

In summary, this is a collection of high-quality articles, which are in general well-organised and which exhibit a commendably clear line of argumentation. Each contribution adds to the overall picture of raising and control, clearly addressing the aims given at the outset by the editors. The reader's difficulty lies in collectively interpreting the often conflicting conclusions drawn by each paper. While the lack of any consensus almost feels like a step backwards, it is probably characteristic of the progress of science. Nevertheless, I feel the book could have benefited from some kind of epilogue from the editors, who have chosen not to exploit the opportunity to compare and evaluate the claims made by the authors, and remain noticeably (but deliberately) reticent concerning the possible validity of the MTC. Instead, Landau's paper, which serves as a kind of summary of the wider MTC debate advanced in this volume, encapsulates the tensions within Minimalism, and its argumentation helps to clarify the aims and methodologies of the research field. The overall picture (if, indeed, it is possible to paint one) is that the more straightforward control facts can generally be captured either in a movement-based or in a PRO-based theory of control. Collectively, the papers do not appear to provide the clear empirical argument that can decide between one or the other. Encouragingly, while the early positions in this debate centred around theoretical concerns of parsimony, subsequent works have staked their claims on firmer empirical grounds, and cross-linguistic empirical issues have been brought into sharper focus, although the range of documented data are evidently not fully understood (even as concerns English, cf. split control). A common theme underlying some of the papers in this collection is a willingness to re-evaluate (and sometimes reject) traditional analyses of raising and control, and in this respect the impact of the Hornstein–Landau debate is evident, even if a resolution to the debate seems further in the distance than ever.

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François Dell & Mohamed Elmedlaoui, *Poetic meter and musical form in Tashlhiyt Berber songs* (Berber Studies 19). Cologne: Rüdiger Köppe, 2008. Pp. 274 & CD-ROM.

Reviewed by MYFANY TURPIN, The University of Queensland, Australia

Poetic meter and musical form in Tashlhiyt Berber songs (henceforth *Poetic meter in Berber*), with which is included a CD-ROM containing MP3 audio and marked-up Audacity files of songs referred to in the text, is an excellent case study on how words are set to music and thus deals with a research area at the interface between phonology and music (see, for example, Dell & Halle, to appear; Hayes & Kaun 1996). The book does not assume prior knowledge of any particular theoretical methodology and will be of value to phonologists, those interested in the relationship between language and music, scholars of literature and verbal art, ethnomusicologists and specialists in Berber language and music. A major finding of François Dell & Mohamed Elmedlaoui's book is that metrical structure exists independent of musical structure in these songs. The authors find discrepancies between lineation and musical groupings, showing that division of a song text into lines is not a by-product of grouping structure in the musical domain.

Poetic meter in Berber is a generative account of textsetting in traditional songs of Tashlhiyt Berber (TB), a language spoken by five million people in Western Morocco. Dell & Elmedlaoui, the latter himself 'a fluent participant