Review of "Referential CPs and DPs: An operator movement account" by Liliane Haegeman and Barbara Ürögdi

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1. Main Clause Phenomena and intervention effects

Among the various stimulating proposals contained in Haegeman & Ürögdi's article (henceforth H&Ü), I would like to comment in particular on their interesting claim that factive complements are part of a bigger set of embedded clauses, R(eferential) CPs, derived by operator movement crucially constrained by Relativized Minimality (RM).

H&Ü seek to provide a unitary account for two apparently unrelated properties of factive clauses – their resistance to Main Clause Phenomena (MCP), such as Topicalization, and their weak islandhood, namely the impossibility of adjunct extraction from them. The proposed unitary account rests on the postulation of an operator which moves into the left periphery of the factive clause and creates an intervention effect, on a par with the *wh*-operator of embedded *wh*-interrogatives and the event operator of Haegeman's (2003, 2006) "central" (*when* and *if*) adverbial clauses, which also ban MCP.

In the discussion below, I will offer some observations from Bulgarian which seem to raise certain questions bearing on the precise formulation of the types of elements that cause intervention effects constraining A'-movement in these clauses.

Concerning central adverbial clauses, at first sight Bulgarian seems to pattern with English (see (1)) in not admitting (unless very marginally in the case of *if* clauses) fronted constituents (see (2)), while admitting base generated adjuncts and Clitic Left-Dislocated phrases (not illustrated here):¹

The fronted arguments in (2a,b) exemplify a particular construction of Bulgarian, a clitic-less Topic construction, which differs from Clitic Left Dislocation in having Operator properties (Lambova 2001, Krapova 2002, Arnaudova 2010[2003]) and is thus plausibly comparable to English Topicalization.

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one that contains Q plus δ .

- (1) a. *When that film I went to see, I remembered my first trip to Tokyo (H&Ü's (2a))
 - b. *If this film you go to see, you will remember our (H&Ü's (2b)) first trip to Tokyo
- (2) a. *Kogato [Top knigata] pisax, majka mi
 when book-the wrote-1sg, mother my
 gledaše detsata.
 took-care-3sg children-the
 '*When the book I was writing, my mother was taking care of the children'
 - b. ??*Ako* [_{Top} dăržavnija izpit] ne vzemeš. njama da won't if state-the exam not take-2sg, to zavăršiš nikoga. finish-2sg never '*If your state exam you fail to take, you will never graduate'

The ungrammaticality of (2) would seem to follow from the intervention-effect hypothesis, namely that Operator movement into CP (movement of *when*] *kogato* in temporal clauses and of a null world operator in conditional clauses) is bound to produce intervention effects since it would interfere with Topic movement; in H&Ü's view, fronted Topics (alongside with D-linked constituents and other material which can extract out of weak islands) are featurally enriched in the sense that they possess "an additional feature which relates the operator to the discourse (represented as δ)" (p. 128). Given this approach, the unavailability of embedded Topicalization in such contexts in Bulgarian (as well as in English) can be made to follow from the more general constraint on feature interaction: a moved operator needs to have such a featural make-up that would allow it to overcome its intervener. In particular, an operator endowed with a Q feature cannot cross over a featurally enriched operator, i.e.

Bulgarian however allows the embedded Topic to precede *kogato* and other central adverbial operators (cf. (3)):

(3) a. [Top Knigata] kogato pisax, majka mi gledaše book-the when wrote-1sg, mother my took-care-3sg detsata. children-the

'When I was writing this book, my mother was taking care of the children'

b. [Top Dăržavnija izpit] ako ne vzemeš, njama da state-the exam if not take-2sg, won't to zavăršiš nikoga. finish-2sg never

'Your state exam if you fail to take, you will never get a diploma'

Under H&Ü's analysis the lack of intervention effect in (3) could be accounted for by invoking the inverse feature pattern, namely the Topic phrase which has an enriched feature content (i.e. Q plus δ) is allowed to move across an operator endowed with a simple Q feature. However, if the relative positioning of the Topic operator and the central adverbial operator were simply a function of a feature-based intervention, we could expect English to allow for the same possibility, contrary to fact. While this impossibility might well be due to some independent interfering factor, the bigger question remains as to what is the motivation for attributing a certain feature make-up to a moved constituent.

From the typology given in section 3.4.1 (see (4a) below and the exemplifications of the respective patterns in (5)), the implied generalization seems to be that moving an operator endowed with more features than the one crossed over does not cause an intervention effect, while such an effect does show up in case the moved operator is endowed with an identical set or a subset of the features contained in the operator crossed over.

$$(4) \quad a. \qquad \qquad \textit{whether} \quad \textit{wh}_{int} \qquad \qquad (\textit{H\&\ddot{U}'s} \ (24))$$

$$\quad Q \qquad Q \qquad \qquad Q$$

$$\quad b. \qquad \qquad \textit{whether} \quad \textit{wh}_{int}, \textit{D-linked}$$

$$\quad Q + \delta \quad Q \qquad Q + \delta$$

$$\quad c. \qquad \qquad \textit{whether} \quad \textit{Rel}$$

$$\quad Q + \delta \quad Q \qquad Q + \delta$$

$$\quad d. \qquad \qquad \textit{Topic} \qquad \textit{wh}_{int}/\textit{Rel}^2$$

$$\quad Q \qquad Q + \delta \qquad Q/Q + \delta$$

- (5) a. *How do you wonder whether John will solve the (H&Ü's (23a)) problem?
 - b. ?Which problem do you wonder whether John (H&Ü's (23b)) will solve?

This last possibility is reconstructed on the basis of the text discussion in 3.4.1.

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- c. ?These are the problems which we wonder whether (H&Ü's (23c)) John will solve
- d. *Who did you say that to Sue Bill introduced

 *This is a student to whom, your book, I had
 recommended last year

 (H&Ü's (25a))

 (H&Ü's (7a))

The question whether or not there is an independent motivation for attributing a certain feature make-up to a moved operator should be viewed in connection to the wide intra-linguistic and cross-linguistic variation that is found with respect to potential interveners. For example in English itself, there is a contrast between main and embedded clauses with respect to the possibility of moving a Topic over an interrogative *wh*-. See (6a,b) vs. (7a,b), both taken from Watanabe (1993:122):

- (6) a. ? And this book, to whom should Bill give? (Watanabe's (A.7)) $Q + \delta$ Q
 - b. *To whom this book should Bill give?
- (7) a. *I wonder this book to whom we should give.

 $O + \delta$

b. ?I wonder to whom this book we should give. (Watanabe's (A.8), from Pesetsky 1989)

If the lack of intervention effects in (6a) is to be attributed to the enriched feature content $(Q + \delta)$ of the Topic crossing over a simple Q *wh*-operator, in contrast to the intervention effect in (6b) with the opposite arrangement of features, it is not at all clear why the same pattern produces the opposite effect in embedded clauses, such as (7).

Cross-linguistic comparisons produce more puzzles. Bulgarian, for example, in contrast to English, has the order Topic > wh- in both main and embedded interrogatives, while it patterns with English in precluding the opposite order in main interrogatives, though not in embedded ones where this order appears marginally possible, at least in colloquial Bulgarian.³ Compare (8)–(9) with (6)–(7);⁴

³ (9b) is more marked than (9a) in that it requires a special intonational contour. This appears to also be the case of Italian focus movement in embedded wh-interrogative contexts (Guglielmo Cinque, p.c.):

- (8) a. Detsata koj šte vodi na kino? children-the who will take-3sg to cinema $Q + \delta$ Q
 - b. *Koj detsata šte vodi na kino?
- (9) Čudja se detsata a. koi šte vodi kino. na wonder-1sg children-the who will take-3sg cinema to $O + \delta$ O
 - b. ?Čudja se koj detsata šte vodi na kino.

Moving on to relative clauses, we find again a partially similar contrast between English and Bulgarian: while the English relative clause case mimics the embedded interrogative in (7) (see (10) below), Bulgarian shows that both Topic/Focus > Wh- and Wh- > Topic/Focus are possible orders, cf. (11a,b). If the pattern (4d) is applicable to Bulgarian, it is not clear why it cannot rule out (11b), on a par with English (5d, second example).

- (10) a. The man to whom liberty we could never grant $(H\&\ddot{U}$'s (25c)) $Q + \delta = Q$
 - b. *This is the man liberty to whom we could never grant.
 - (i) a. Mi domando QUESTO a chi potremmo dare.

 myself ask-1sg THIS to whom could-1pl give
 'I wonder THIS to whom we could give'
 - b. ?Mi domando a chi QUESTO potremmo dare.
 myself ask-1sg to whom THIS could-1pl give
 'I wonder to whom THIS we could give'
 - Additionally, Bulgarian allows for multiple topics not only in main clauses (as opposed to English which disallows them) but also in wh-questions (see (i) and for details, Lambova 2001):
 - (i) Detsata na cirk koj šte vodi utre? (Lambova's (71)) kids-the (top) to circus (top) who will take tomorrow 'The kids to the circus who will take tomorrow?'

Such cases, as well as multiple wh-fronting ((ii)) may compound the problem:

'The kids to the circus, who will take when?

See, however, Krapova and Cinque (2008) for a possible account of these apparent violations of Relativized Minimality.

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(11) a. Tova e ženata,
$$[T_{op/Foc} \ naj\text{-}složnite \ pesni] \ kojato$$

$$Q + \delta \qquad Q + \delta$$
this is woman-the most complex-the songs who peeše . . . sang
'This is the woman who sang the most complex songs' (Rudin 1986: 127, ex. (9a))
b. Tova e ženata, kojato $[T_{op/Foc} \ naj\text{-}složnite \ this is woman-the who most complex-the pesni] peeše . . . songs sang
'This is the woman who sang the most complex songs'$

Incidentally, the contrast between (7a) and the possible

(12) This book, I wonder to whom we should give.

seems to suggest that the order of elements in the left periphery cannot be straightforwardly reduced to an intervention effect. Given that a Topic seems to be able to cross over a *wh*- under extraction this contrast between (7a) and (12) makes one think that what matters for the order of operators within the same CP is the height of the position targeted by each operator (in each language). See Rizzi (1997, 2004) for such a view.

To summarize, the point I wish to make is that although the enriched-feature hypothesis can be seen as an attempt at formulating a system of local relations that is less selective that the one based on strict identity of featural specification (which as pointed out by Rizzi 2004, is too liberal and thus incapable of capturing a variety of minimality effects), a more precise understanding is still needed of the exact featural content of the quantificational elements that count for locality. It could, for example, be the case that even base generated elements count as interveners if they bear the appropriate quantificational features, 5 while even moved elements fail to count as interveners provided they lack the

A potential candidate, for example, is the special interrogative *kak taka* in Bulgarian, parallel to English *how come*, which, plausibly, does not have a movement source, given that, as opposed to *žašto* 'why', it can never be construed with an embedded clause, cf. (ia):

 ⁽i) a. Kak taka kazvaš, če sa arestuvali Ivan?
 how come say-2sg that have-3pl arrested Ivan?
 'How come you say that they have arrested Ivan?' (*How come they have arrested Ivan?)

relevant quantificational features.⁶ The special status of Topics should perhaps be reconsidered, also in view of Rizzi's (2004) generalization that they "have none of the properties expressed by the feature system identifying major position types, which RM is sensitive to: i.e., they belong neither to the system of arguments, nor of quantification, nor of adverbial modification" (p. 246).

2. Factive clauses

Bulgarian offers some facts which might present a potential counterexample to the generalization that factive clauses resist MCP, such as embedded topicalization. As indicated by (14), arguments can be fronted to the left periphery of a factive *that* complement without producing any intervention effect. In this respect, Bulgarian factives differ from both their English counterparts, cf. (13), as well as from the central adverbial clauses in the same language, cf. (2) above.⁷

- (13) *John regretted that that film he went to see. (H&Ü's (14a))
- Az se iznenadax. [Top parite] Ivan če I surprised-1sg money-the refl that Ivan has dal Marija (a ne na sestra si). (and not to sister his-refl.) given Maria

The unavailability of Topicalization in (ib) (as opposed to CLLD) seems to indicate that even base generated operators can create intervention effects with respect to argument fronting.

- 6 In addition to the those discussed in H&Ü, a relevant case is the crossing of a wh-subject over fronted low adverbs like early and others in Bulgarian poetic style:
 - (i) Kaži mi koj tolkova rano e stanal. tell-imp me who so early has got up 'Tell me who has got up so early'
- Onstituents bearing Contrastive Focus are also acceptable in factive clauses and arguably also target a left peripheral position (see e.g. Lambova 2001, Arnaudova 2010 [2003]). Cf (i) as opposed to (ii) from English:
 - (i) a. Săžaljavam, če TOČNO TAZI KNIGA Marija e izbrala.
 regret-1sg that precisely this book Maria has chosen
 'I regret that Maria has chosen precisely this book'
 b. *John regrets that THIS BOOK Mary chose (H&Ü's (19a))

b. <u>Ivan</u> <u>kak</u> <u>taka</u> (<u>kazvaš</u>, <u>če</u>) <u>sa</u> *(<u>go</u>) <u>arestuvali?</u> <u>Ivan</u> how come say-2sg that have-3pl him arrested 'How come you say that they have arrested Ivan/How come they have arrested Ivan'

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'I was surprised that Ivan has given the money to Maria (and not to his sister)

b. Az naj-nakraja razbrax, če [Top mussaka] Ivan
 I at-last found-out-1sg that mussaka Ivan
 ne jade.
 not eats

'At last I found out that Ivan does not eat mussaka'

H&Ü treat the acceptability of embedded Topics in (certain) English factives (as potential counterexamples to the canonical judgements, cf. Bianchi & Frascarelli 2010) due to their contrastive nature; in order for the examples to be felicitous, a special (non-neutral) context must be activated which can generate a set of alternative events, evincing a contrastive interpretation. However, no such context is needed for the correct interpretation of the Bulgarian embedded Topics in (14). In fact, as (14a) shows, contrast is on the last constituent, rather than on the fronted argument or on the event.

Topic fronting under factive predicates in Bulgarian does not seem to be a unique case. Platzack (1986) and Vikner (1995: 72) report analogous data from Icelandic and Yiddish.

- (15) a. Jón harmar að þessa bók skuli ég hafa lesið (Icelandic) (Rögnvaldsson & Thráinsson 1990: 23, ex. (32) reported in Vikner 1995: 72 (20a))
 - b. Jonas bedoyert az dos bukh hob ikh geleyent. (Yiddish)'John regrets that this book have I read'. (Vikner 1995: 72 (20d))

It remains to be seen how H&Ü's analysis can accommodate these data, which in any case seem to call for a more complex CP structure under factive predicates. Crucially, the target position of the event operator should be higher than the position targeted by the Topic so that the former could trigger the "desired" intervention effect in English. But then Bulgarian, Yiddish and Icelandic stand as a problem.

If, semantically, facts are declarative propositions presupposed true, this seems to imply that there is a "factive" C taking the declarative proposition in its scope should be higher than the TP-related Fin complementizer. It might be argued that the high position of the complementizer in factive clauses is ultimately derived by raising it above the position hosting the event/factive

operator. For an elaboration of this view see Watanabe (1993) for English, and Krapova 2002 for an adaptation to Bulgarian.

A property of English (and Bulgarian) factives that appears amenable to H&Ü's analysis is their inability to license negative polarity items in their complement:

- (16) a. *I don't regret that the media have <u>ever</u> before played such a major role.
 - b. I don't claim that the media have <u>ever</u> before played such a major role.

(Watanabe 1993: 149, A.53, c,d)

- (17)*Ne săžaljavam, mediite igrali če niakoga sa not regret-1sg that media-the ever have played takava važna rolja. such important role
 - b. Ne tvărdja, če mediite igrali njakoga sa not claim-1sg that media-the ever have played takava važna rolia. important role such

As known from the literature (cf. Watanabe's 1993 discussion based on Progovac 1988 and Laka 1990), licensing of negative polarity items appears to require the presence of a negative complementizer or operator in the clause containing the polarity item. This is shown by the behavior of such negative non-factive verbs as *deny*, and *doubt*, which are by themselves unable to license a polarity item in the same clause but render such licensing possible in their clausal complement by licensing there a negative complementizer or operator. See the contrast between (18a) and (18b) from Watanabe (1993: 148):

- (18) a. *The witnesses denied anything.
 - b. The witnesses denied that anybody left the room before dinner.

Given this, the fact that the (negative) factives in (16a), (17a), as opposed to negative non-factives, (16b), (17b), are incompatible with a negative polarity item in their complements is plausibly to be attributed to an intervention effect. This would follow under H&Ü's analysis if the negative operator licensed by matrix negation were to raise to the embedded CP space, thus creating a chain which interferes with the chain created by the event operator of the factive clause. Interestingly, negative verbs (like *deny*, and *doubt*) also disallow

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embedded Topicalization (MCP) in English (Hooper and Thompson 1973), and at the same time block adjunct extraction (Cattell 1978, Hegarty 1992). (19) gives the relevant examples from Bulgarian which pattern with their English counterparts:

- (19) a. *Sămnjavam se, če mussaka Ivan jade. doubt-1sg that mussaka Ivan eats (cf. Sămnjavam se, če Ivan jade mussaka)
 - b. *Kak se sămnjavaš, če mediite sa igrali takava how doubt-2sg that media-the have played such važna rolja? important role

Given H&Ü's unitary account of MCP and adjunct extraction as two sides of the same coin, *doubt* and *deny* might then be considered as good candidates for inclusion into the set of the RCP-selecting predicates (abstracting away from the above mentioned cross-linguistic differences which remain problematic for H&Ü's account of factivity in terms of operator movement).

3. Two types of factives in Bulgarian: islandhood effects

In Krapova (2010) I discuss a particular type of factive clauses in Bulgarian introduced by a relative complementizer, *deto* (which derives from an adverbial relative pronoun):

- Naistina săžaljavam, otdelix (20) a. deto ne povece regret-1sg that devoted-1sg really not more vnimanie na postrojkata. construction-the to 'I really regret that I did not devote greater attention to the construction'
 - b Samo me jad, deto grivnata izčezna only bracelet-the disappeared me-dat is anger that sled zatămmenieto. eclipse-the after 'I am only angry that the bracelet disappeared after the eclipse.' (Krapova 2010: 1265 (56a,b))

I have argued that *deto*-complements, which are selected by (a subset of) factive predicates also selecting a PP nominal complement, involve a relative clause structure, as the one given in (21):

(21) Săžaljavam/Jad me e/ Măcno mi e . . . [PP P za/Ø [DP D tova/Ø I regret/ am sorry/angry for this [CP deto]] that (Krapova 2010: 1267)

A number of arguments can be adduced to motivate the postulation of the structure in (21): parallel nominalizations, extraposition, the behavior of the complex complementizer *zadeto* 'for that', etc.⁸ For reasons of space I cannot discuss them here, but I would only like to mention one relevant fact, namely that *deto*-complements are strong islands for extraction. See (22):⁹

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(i) a. *pjon thimase pu sinandises? (Roussou's (7a,b))
who remember-2sg that met-2sg
'Who do you remember that you met?'
b. *pote thimase pu sinandises ti Maria?
when remember-2sg that met-2sg the Maria
'When do you remember that you met Maria?'
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(ii) a. (?)pjon thimase oti sinandises? (Roussou's (7'a,b))
who remember-2sg that met-2sg
b. *pote thimase oti sinandises tin Maria?
when remember-2sg that met'-2sg the Maria
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Roussou (2010) takes pu to be a locative and inherently definite pronoun which precisely because of its definiteness feature is able to function as factive $per\ se\ (pu\ binds\ a\ proposition\ variable\ associated\ with\ a\ single\ proposition\ located\ at\ a\ certain\ point\ of\ reference\ thus$

Note furthermore that *deto* can also be used as a relative complementizer after some non-factive verbs (*say, admit*), whose complements can be plausibly interpreted as involving a null-headed relativization structure:

⁽i) Neka si dojde Petko zimăs da mu kaža, deto me zakačaš....!

Let him come-3sh Petko winter to tell him that me flirting

'I am waiting for Petko to come home this winter so that I can tell him [this thing] that you are flirting with me'

(Ivajlo Petrov 1978: 166, www.hf.ntnu.no/hf/adm/forskning/prosjekter)

Similar facts holds for the Greek (relative and factive) complementizer pu, as shown in Roussou (1994, 2010). Crucially, predicates which appear to select both for this complementizer, as well as for the "regular" complementizer oti 'that' show a different behavior with respect to extraction: pu-complements produce strong islands, while oti-complements produce weak islands. The examples below are from Roussou (1994):

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(22)a. *Kakvo săžaljavaš, deto Ivan napravil t? е what regret-2sg that Ivan done has h *Kăde săžaljavaš, deto Ivan e. otišăl t? where regret-2sg that Ivan has gone (Krapova 2010: 1268 (65a,b))

This behavior naturally follows from the presence of a DP and a PP layer on top of the embedded CP, 10 as opposed to a structure, that introduced by $\check{c}e$ 'that', which does not.

Complements introduced by the all-purpose declarative complementizer $\check{c}e$ 'that' can also receive a factive interpretation if selected by an appropriate factive verb (without any restriction on predicate classses). Unlike their *deto*-counterparts, however, $\check{c}e$ -factives appear to be "simple" CPs, although in Krapova (2010), I do not take a stand on their internal composition. Nevertheless, I would like to mention here one fact which seems to point in the direction of H&Ü's analysis, namely that like English *that* factives, $\check{c}e$ -factives are weak islands for extraction, cf. (23)–(24):

- (23) a. *Why did you notice that Mary had fixed the cay t? (H&Ü's (16a)) b. Which car did you notice that Mary had fixed t? (H&Ü's (16c))
- (24)Kakvo săžaljavaš, Ivan napravil? a. če regret-2sg what that Ivan has done b. *Kăde săžaljavaš, če Ivan е otišăl? where regret-2sg that Ivan has gone (Krapova 2010: 1268, (66a,b))
- (24) follows naturally from H&Ü's account of the weak islandhood effect of factive complements as due not to an additional DP layer on top of CP but to

yielding the presuppositional effect associated with factive complements). *Oti* on the other hand is indefinite and operates over a set of propositions, which can receive different truth values.

As indicated by the purpose clause in (i), all complements involving a P-headed complementizer are islands for extraction, as are PPs in Bulgarian more generally, (ii):

⁽i) *Kakvo otivaš v magazina [CP za da kupiš t]? (Penčev 1998: 169) what go-2sg into store-the for to buy-2sg

⁽ii) *Na kogo govori [pp săs [Dp zetja t]]
to whom spoke-2sg with son-in-law-the
'To whose son-in-law did you talk'

the presence of an (event) operator rendering successive cyclic movement through the embedded C unavailable, much like in embedded *wh*-interrogatives, as in e.g. (25):¹¹

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(25) a. Kakvo se čudiš koj e kupil?

what wonder-2sg who has bought

b. *Kăde se čudiš koj e kupil knigata

where wonder-2sg who has bought book-the
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Given this contrast in terms of extraction, the structural difference between *če* and *deto* factives (i.e., a simple CP, as opposed to a DP embedded under a PP) becomes orthogonal to factivity *per se*. Therefore, the evidence regarding *deto* clauses, as reported in Krapova (2010), is only an apparent counterexample to H&Ü's treatment of factivity as involving a simple CP.

4. RCPs and DPs

One last comment I would like to make regards H&Ü's claim that referential DPs are, like RCPs, weak islands. While this suggestion might find some support in certain facts of extraction from DPs in English (see their text discussion of (53) and (54)), it does not seem to extend straightforwardly to other languages. In addition to Fiengo and Higginbotham's (1981) "Opacity Condition", other, more stringent, constraints on extraction from DP are operative in languages like Bulgarian (and Italian). Here rather than the argument-adjunct

In a similar vein, Rooryck (1992) takes the Spec,CP position to be unavailable for successive cyclic movement, thus accounting for the possible extraction of objects (subject extraction might have to do with the non-deletability of *that* and the avoidance of a potential *that*-t effect). Interesting in this connection is his mention of an observation by Kayne 1981 (cf. also Adams 1985) that stylistic inversion in French is unavailable too with factive verbs (cf. the minimal pair in (i)), suggesting under Kayne and Pollock's (1978) analysis of stylistic inversion that in this case no movement through the embedded CP is available.

 ⁽i) a. Le livre que Jean croit qu'aime Marie
 'The book that Jean believes that Marie likes'
 (Rooryck's (64b), Adams 1985, (1b))

b. *Le livre que Jean regrette qu'aime Marie
 'The book that Jean regrets that Marie likes'
 (Rooryck's (65b), Adams 1985, (2b))

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asymmetry typical of weak islands, the crucial asymmetry seems to be subject extraction (possible) vs. extraction of everything else (impossible). See Krapova and Cinque (to appear) on Bulgarian (and Cinque 2010 on Italian).

In conclusion, it seems to me that H&Ü have reopened the important question of what is the feature content, for the purposes of intervention effects, of the different elements that create such effects. The complexity of the matter, as it also emerges from the work of H&Ü, points to the need for a better understanding of the relevant across-linguistic data in order to be able to arrive at a more general theory of intervention effects and its consequences for syntactic analysis.

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References

Adams, Marianne. 1985. Government of empty subjects in factive clausal complements. *Linguistic Inquiry* 16.305–313.

Arnaudova, Olga. 2010 [2003]. Focus and Bulgarian clause structure. Vdm Verlag Dr. Muller Aktiengesellschaft & Co. Kg.

Bianchi, Valentina and Mara Frascarelli. 2009. Is topic a root phenomenon? lingBuzz/000954.

Cattell, Ray. 1978. On the Source of Interrogative Adverbs, Language 54. 61–77.

Cinque, Guglielmo. 2010. Extraction from DP in Italian: why can only subjects extract. Ms., University of Venice.

Fiengo, Robert and James Higginbotham. 1981. Opacity in NP. *Linguistic Analysis* 7: 347–373. Haegeman, Liliane. 2003. Conditional Clauses: external and internal syntax. *Mind and Language* 18. 317–339.

Haegeman, Liliane. 2006. Conditionals, factives and the left periphery. *Lingua* 116. 1651–1669.
 Hegarty, Michael. 1992. Familiar complements and their complementizers: On some determinants of A" – locality. Unpublished manuscript: University of Pennsylvania.

Hooper, John and Sandra Thompson. 1973. On the applicability of root transformations. Linguistic Inquiry 4. 465–97.

Kayne, Richard S. 1981. ECP extensions. Linguistic Inquiry 12.93-133.

Kayne, Richard S. and Jean-Yves Pollock. 1978. Stylistic Inversion, Successive Cyclicity, and Move NP in French. *Linguistic Inquiry* 9 (4), 595–621.

Krapova, Iliyana. 2002. On the left periphery of the Bulgarian sentence. University of Venice Working Papers in Linguistics.

Krapova, Iliyana. 2010. Bulgarian relative and factive clauses with the invariant complementizer deto 'that'. Lingua 120. 1240–1272.

Krapova, Iliyana and Guglielmo Cinque. 2008. On the order of multiple wh-questions in Bulgarian multiple wh-fronting. In Gerhild Zybatow, Lukas Szucsich, Uwe Junghans, Roland Meyer

- (eds.), Formal Description of Slavic Languages. The Fifth Conference, Leipzig 2003. 318–336. Frankfurt am Main: Peter Lang.
- Krapova, Iliyana and Guglielmo Cinque. to appear. A case for Genitive Case in Bulgarian. In Lilia Schürcks, Anastasia Giannakidou, Uribe Etxebarria, Peter Kosta (eds.), Nominal Constructions in Slavic and Bevond. Berlin: Mouton de Gruyter.
- Laka, Itziar. 1990. Negation in Syntax. MIT Doctoral Dissertation.
- Lambova, Mariana. 2001. On A-bar movements in Bulgarian and their interaction. The Linguistic Review 18. 327–374.
- Penčev, Iordan. 1998. Sintaksis na săvremennija bălgarski knižoven ezik. Plovdiv
- Pesetsky, David. 1989. Language Particular Processes and the Earliness Principle. Ms. MIT.
- Progovac, Liljiana. 1988. A Binding Approach to Polarity Sensitivity. University of Southern California Doctoral Dissertation.
- Rizzi, Luigi. 2004. Locality and left periphery. In Adriana Belletti (ed.), *Structures and Beyond.*The Cartography of Syntactic Structures, vol. 3, Oxford: Oxford University Press. College
- Rooryck, Johan. 1992. Negative and Factive Islands Revisite. Journal of Linguistics 28(1). 1–26.
- Roussou, Anna. 1994. Factive Complements and Wh-Movement in Modern Greek. *University London Working papers in Linguistics*, 123–147.
- Roussou, Anna. 2010. Selecting Complementizers. [Kleanthes K. Grohmann and Ianthi-Maria Tsimpli (eds.), Exploring the left periphery]. Lingua 120(3). 582–603.
- Rudin, Catherine. 1986. Aspects of Bulgarian Syntax: Complementizers and wh-Constructions. Columbus, OH: Slavica.
- Vikner, Sten. 1995. Verb Movement and Expletive Subjects in the Germanic Languages. Oxford: Oxford University Press.
- Watanabe, Akira. 1993. Agr-based Case Theory and its Interaction with the A-bar system. MIT Doctoral Dissertation.