2 DP and CP: a Relativized Minimality approach to one of their non parallelisms

Iliyana Krapova & Guglielmo Cinque

CA' FOSCARI UNIVERSITY[*]

Abstract: Despite certain parallelisms, DPs and CPs also reveal profound differences. Here, we focus on one crucial difference between them: the one concerning extraction. In many languages extraction from (complement) DPs is more severely constrained than extraction from (complement) CPs (as we show on the basis of Italian and Bulgarian, in particular). We will try to derive this difference from a difference in the internal make-up of DPs and CPs in interaction with Phase Theory and a version of Rizzi's Relativized Minimality which partly modifies Starke's (2001) and Krapova and Cinque's (2008) specific implementation to deal with order preservation as in multiple wh-fronting in languages like Bulgarian.

2.1 Relativized Minimality

We assume the following definition of Relativized Minimality (RM) (Rizzi (2013: 179)):

(1)   "In the configuration … X … Z … Y … a local relation (e.g., movement) cannot hold between X and Y if Z intervenes [where "Z intervenes" if X c-commands Z and Z c-commands Y] and Z **fully matches** the specification of X in the relevant morphosyntactic features"[1]

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[1]Z "fully matches" the feature specification of X only in the a. and d. cases of (i) below ("where $+A$ and $+B$ are features") (cf. Starke (2001: 8) and Rizzi (2011: §4)):

As to the "relevant morphosyntactic features" we assume the classes specified in (2), adapting Starke's (2001) and Rizzi's (2011, 2013) classification:

(2)   The classes of "relevant morphosyntactic features"

a.   [+**Operator**] (phrases binding a non-singleton, ***non-individual***, variable):[2] interrogative *wh*-phrases (*how, what, whether, who, how much/many, ...*), bare quantifiers (*qualcosa* 'something or other'; *qualcuno* 'someone or other', *tutto* 'everything'), distributive quantifiers (*ogni* + NP), negative quantifiers (*niente* 'nothing', *nessuno* 'nobody', etc.), measure/degree phrases (*combien, beaucoup, how* AP, etc.), focused adverbs, and base-generated inherent operators like Negation, *se* 'if', *come mai* 'how come', etc.

b.   [+**Adverbial modifier**]: Higher (evaluative, evidential, epistemic...) and lower (celerative, frequentative, manner) adverbs, Negation, ...

c.   [+**A(rgument)**]: Person, Number, Gender, Case, ...[3]

We take the features 'topic', 'focus', 'wh-interrogative', and 'wh-relative' not to be *directly* relevant to the computation of the 'full matching' of definition (1), because it is the operator or the adverbial modifier nature of the elements X and Z that are responsible for the presence or absence of a RM violation. Only when a phrase with a (bare) operator or adverbial feature crosses over another phrase with an operator or adverbial feature (cases (i)a and (i)d of fn.1) does a

(i)		X	Y	Z	
A.	Z IS IDENTICAL	$+A$	$+A$	$+A$	*
B.	Z IS PROPERLY INCLUDED	$+A+B$	$+B$	$+A+B$	ok
C.	Z IS DISJOINT	$+A$	$+B$	$+A$	ok
D.	Z PROPERLY INCLUDES	$+A$	$+A+B$	$+A$	*

[2][+operator] is a shorthand for the quantificational part of a QP, deprived of the (stranded or reconstructed) restriction, which thus binds a non-individual variable. An operator with the quantificational part accompanied by a restriction can instead bind an individual variable if D-linked. Under the present, featural, formulation this implies that a quantifier phrase like *quanti problemi* 'how many problems' (potentially ambiguous between [+operator] and [+operator, +D-linked] invariably counts as an intervener for a [+operator] phrase (either case (i)a or case (i)d of the previous footnote – see (i) below), but not for a [+operator, +D-linked] phrase under the [+operator] option (case (i)b of the previous footnote – see (ii) below). For fuller discussion see Beck (1996), Szabolcsi & Zwarts (1997), Starke (2001), Rizzi (2001a), Rizzi (2013), Miyagawa (2004), Szabolcsi (2005) and references cited there.

(i)   *Come$_i$ non sapevi quanti problemi fosse riuscito a risolvere t$_i$?
       'How didn't you know how many problems he had managed to solve?'

(ii)   (?)Quale studente$_i$ non sapevi quanti problemi fosse riuscito a risolvere t$_i$?
       'Which student didn't you know how many problems had managed to solve?'

[3]The [+**A(rgument)**]] feature will only become relevant when we discuss extraction from DPs in section IV below.

RM violation ensue. Simple crossing of a topic over a topic ((3)a), of a focalized phrase over a focalized phrase ((3)b), of an interrogative *wh*-phrase over an interrogative *wh*-phrase ((3)c), of a relative *wh*-phrase over a *wh*-relative phrase ((3)d), does not necessarily induce a RM violation:[4]

(3)   a.   **Questo**$_i$,   penso che **a lui**$_k$,   non glielo dovreste dire (cf.
            CLLDtopic   CLLDtopic
            Rizzi 2004,§11)[5]
            'This, I think that to him you should not tell.him.it'

        b.   ?**A GIANNI**$_k$, non a MARIO, penso che **di ME**$_i$ piuttosto che di TE
            focus   focus
            dovrebbero parlare t_i t_k[6]
            'To G. (focus), not to M., I think that about me (focus) rather than about you they should talk'

        c.   **Chi**   non sai ancora **se**   vogliano invitare?
            wh-interr   wh-interr
            'who don't you know yet whether or not they want to invite'

        d.   Gianni, **al quale**$_i$ non c'è nessuno **che**   sia in grado di resistere
                   wh-rel   wh-rel
            t_i,.. (Cinque (2010))[7]
            'Gianni, whom there is nobody that is able to resist,..'

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[4]These features will only count (indirectly) in making X of (1) not to fully match the features of Z, if X is +operator, +topic (i.e. +D-linked) and Z is just +operator.

[5]This is apparently true even for English, despite occasional claims that in English embedded topics create Topic islands. See (i) (Richard Kayne, p.c.):

(i)   That kind of gift, I think that to that kind of child, I would never have given

[6]Extraction of a focus phrase from a clause introduced by another focus phrase is somewhat cumbersome (though not impossible). This is plausibly due to independent reasons (the difficulty in Italian of having two foci in one and the same sentence).

[7]It would seem to be impossible to test the crossing of one relative *wh*-phrase over another relative *wh*-phrase as such a movement would also cross a strong relative clause island. While this is usually the case (see e.g. (i)), there is at least one construction which allows us to see the crossing of one relative *wh*-phrase over another in the absence of a strong relative clause island. This construction, noted originally in the Scandinavian languages, appears to occur in other languages as well (when certain general conditions are satisfied - see the examples in (ii) and Cinque (2010) for discussion):

(i)   *Giorgio, sul quale$_i$ hanno arrestato il giornalista che ha scritto queste cose t_i,..
           G., about whom they have arrested the journalist who wrote these things,..

(ii)   a.   Giorgio, al quale$_i$ conosco più di qualcuno che sarebbe disposto ad affidare
           i propri risparmi t_i,..
           'Giorgio, whom I know somebody that would be ready to entrust with their savings, . . .'

        b.   Ida, di cui$_i$ non c'è nessuno che sia mai stato innamorato t_i,..
           'Ida, whom there is nobody that was ever in love with,..'

On the other hand, irrespective of the particular movement involved in the extraction, if the features of Z of (1) (the intervening phrase) are identical to, or properly include, the features of X of (1) (the phrase being extracted) a RM violation ensues. Instead if the features of Z are distinct from, or are properly included in, X no RM violation ensues. See (4) vs. (5), where extraction involves CLLD (Topicalization), (6) vs. (7), where extraction involves Focus Movement, (8) vs. (9) where extraction involves Interrogative Wh-Movement, and (12) vs. (13), where extraction involves Relative Wh-Movement (we consider later the case of a phrase with an adverbial modifier feature crossing over another phrase with the same feature).

Extraction by Clitic left dislocation (Topicalization):

(4) a. *__1000 euro__$_i$, mi chiedo __dove__   non li costi t$_i$.
    +operator   +operator
    'One thousand euros, I wonder where it doesn't cost them' (cf. *1000 euro, penso che non li costi* 'One thousand euros, I think it doesn't cost them')

    b. *__Qualcosa__$_i$, mi chiedo __perché__   debba fare t$_i$ per aiutarlo
    +operator   +operator
    'Something or other, I wonder why he has to do to help him' (cf. *Qualcosa, penso che debba fare per aiutarlo* 'Something or other, I think he has to do to help him')

    c. *__Molti__,   mi chiedo __per quale di queste ragioni__ non sia
    +operator   +operator, +D-linked
    riuscito a risolverne
    'Many, I wonder for what reason he did not manage to solve' (cf. *Molti, credo che non sia riuscito a risolverne* 'Many, I think he did not manage to solve')

(5) a. __Qualcosa__$_i$, penso che __a Gianni__ dovranno pur dire t$_i$
    +operator   -operator
    'Something or other, I think that to Gianni they will have to say'

    b. __In questo modo__$_i$, non immagino __chi__   potrebbe essersi
    -operator   +operator
    comportato t$_i$ (Rizzi (1990: 104))
    'In this way, I don't imagine who could have behaved'

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    c. Giorgio, al quale$_i$ non c'è proprio niente che saremmo in grado di offrire t$_i$ (per convincerlo a restare),…
    'Giorgio, to whom there is really nothing that we would be able to offer (to convince him to stay),…'

As (3)d and (ii) show, a relative *wh*-phrase does not induce a minimality barrier for another relative *wh*-phrase (whether *che* itself is a (weak) relative pronoun, as argued in Kayne (2008) and Sportiche (2008), or a complementizer co-occurring with a silent wh-pronoun).

    c.   **A Gianni**, credo che **QUESTO** gli volessero dire (non
        −operator   −operator
        qualcos'altro) (Rizzi 2011,§3)
        'To Gianni, I believe that this (focus) they wanted to say (not something else)'

Extraction by Focus movement:

(6)   a.   ***NIENTE**$_i$ mi domando **come mai** abbia mangiato t_i !
           +operator   +operator
           'Nothing (focus) I wonder how come he ate' (cf. *NIENTE credo che abbia mangiato*! 'Nothing I think he ate')
    b.   ***TUTTO**$_i$ mi hanno chiesto **a quale dei suoi amici** potrebbe
           +operator   +operator, +D-linked
           aver detto t_i !
           'Everything (focus) they asked me to whom among his friends he could have said' (cf. *TUTTO penso che possa aver detto a qualcuno dei suoi amici*)
    c.   ***IN OGNI CITTA'**$_i$ **non**   era scoppiata una bomba t_i !
           +operator   +operator
           'In every city (focus) a bomb didn't explode'

(7)   a.   **QUESTO**$_i$ mi chiedo **chi**   possa aver detto t_i
           −operator   +operator
           'This (focus) I wonder who may have said'
    b.   **TUTTO**$_i$ credo che **a lui**   dovreste dire t_i !
           +operator   −operator
           'Everything (focus) I think that to him you should say'
    c.   **IN QUESTO MODO**$_i$ penso che **a lui**   dovreste rivolgervi t_i !
           −operator   −operator
           'This way (focus) I think that to him you should refer!'

Extraction by interrogative wh-movement:

(8)   a.   ***Per quale ragione**$_i$ non immagini **chi**   potrebbe essere
           +operator   +operator
           licenziato t_i? (Rizzi 1990,104)[8]
           'For what reason are you wondering who could be fired?'
    b.   ***Quanto spesso**$_i$ ti hanno chiesto **se**   lo vedevi t_i?[9]
           +operator   +operator
           'How often did they ask you whether you saw him?'
    c.   ***Quando**$_i$ credi che **qualcuno** troverà t_i anche lei?
           +operator   +operator
           'When do you think that someone or other even she will find?'

(9) a. **A chi$_i$** pensi che **DI QUESTO** dovremmo parlare t$_i$ (piuttosto
+ operator   -operator
che dei nostri guai)
'To whom do you think that about this (focus) we should talk
(rather than about our problems)'

   b. **Quando$_i$** pensi che **a Gianni** potremo dire tutta la verità t$_i$?
+ operator   -operator
'When do you think that to Gianni we will be able to say the entire
truth?'

   c. **A quale dei suoi parenti$_i$** non ricordi **cosa**   volesse
+ operator, + D-linked   + operator
lasciare t$_i$?
'To which one of his relatives don't you remember what he wanted
to leave?'

If interrogative *wh*-phrases ambiguously qualify as either [+ operator] or
[+ operator, + D-linked] elements it is understandable why a sentence like
(10)a is possible, and why a sentence like (10)b is not (cf. the discussion in
Rizzi 2011,§4).[11]

(10) a. **A che bibliotecario$_i$** non ricordi **quale libro$_j$** devi riconsegnare
t$_j$ t$_i$? (Rizzi 2011)
To which librarian don"t you remember which book you have to
give back?

   b. *?**A che bibliotecario$_i$** non ti ricordi [**quale libro$_j$** abbiamo deciso
[**quando$_k$** riconsegnare t$_j$ t$_i$ t$_k$]
To which librarian don"t you remember which book we have de-
cided when to give back?

Interestingly, a sentence like (11), which apparently displays the same type of
extraction out of two *wh*-phrases as (10)b is instead acceptable. Here, given
that only *A che bibliotecario* crosses over the other two *wh*-phrases, it can be
[+ operator, + D-linked] while the other two *wh*-phrases can just be [+ oper-
ator].

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[9]Even if the operator *per quale ragione* 'for what reason' has a restriction it is not
D-linked, and thus qualifies simply as [+ operator] triggering a RM violation (case (i)a
of footnote 1).

[10]Irrelevantly possible if *quanto spesso* 'how often' is construed with the upper clause.

[11]In (10)a *A che bibliotecario* can have the value [+ operator, + D-linked] while *quale
libro* can have the value [+ operator], thus falling under the case (i)b of footnote 1. In
(10)b, on the other hand, *quale libro* must have the value [+ operator, + D-linked] to
be able to cross over [+ operator] *quando*. But, then, extraction of *A che bibliotecario*
across these two *wh*-phrases will induce a violation of RM whether it has the value
[+ operator] or [+ operator, + D-linked].

(11)   **A che bibliotecario$_i$** non ricordi [**quali studenti$_j$** t$_j$ non sapessero [**come$_k$** fare a riconsegnare i loro libri t$_i$ t$_k$]?
To which librarian don"t you remember which students did not know how to hand in their books

Extraction by relative wh-movement:

(12)   a.   *Il **bravo matematico$_i$** che si domandavano **se** fosse t$_i$ …
   + operator   + operator
   'the fine mathematician that they were wondering whether he was..' (cf. *Il bravo matematico che pensavano che fosse..* 'the fine mathematician they thought he was..")

  b.   ***Quello che$_i$** non so **perché** abbia detto t$_i$ è falso[12]
   + operator   + operator
   'That which I don't know why he said is this' (cf. *Quello che credo che abbia detto è questo* 'that which I think that he said is this')

  c.   *Questo è l"unico modo **in cui$_i$** voglio sapere **chi** si è
           + operator   + operator
   comportato t$_i$
   'This is the only way in which I want to know who behaved'

(13)   a.   La sola persona **a cui$_i$** non ricordavo **quando** avessero
        -operator   + operator
   inviato la mail t$_i$ era Gianni
   The only person to whom I did not remember when they had sent an e-mail was Gianni

  b.   Gianni, **che$_i$** non so **se** abbiate già conosciuto t$_i$,..
      -operator   + operator
   Gianni, who I don't know whether you already met,..

  c.   L'unico di loro **a cui$_i$** credo che **qualcosa** prima o poi
        -operator   + operator
   diranno t$_i$ è Gianni
   The only one of them to whom I think that something or other they will sooner or later say is G.

Concerning the [+ adverbial modifier] feature, see Rizzi (2004), who discusses various pieces of evidence for distinguishing such a position (which he labels "Modifier Phrase" (ModP)) from the more familiar positions occupied by topicalized, focalized and wh-phrases; a position lower than the positions targeted by topicalized, focussed and wh-phrases.

  Preposing to such a position does not require the special contextual conditions that characterize focalized and topicalized AdvPs. Fronting to ModP

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[12]This is a so-called 'light headed" relative clause (cf. Citko (2004)), which fills a gap in the *wh*-paradigm of the headless, or free, relative clause construction in Italian, replacing (*che*) *cosa* 'what", which cannot be used as a free relative pronoun.

((14)) differs from the corresponding topicalized and focalized versions ((15) and (16), respectively), in a number of ways (cf. also Cinque (2004: section 6)).

(14)   Rapidamente, qualcuno farà sparire i documenti
         Quickly, someone will make the documents vanish

(15)   Rapidamente, NESSUNO farà sparire i documenti
         Quickly, nobody will make the documents vanish

(16)   RAPIDAMENTE, qualcuno farà sparire i documenti
         Quickly (focus), someone will make the documents vanish

First, only fronting to ModP can occur in out-of.the-blue contexts:[13]

(17)   (Poi, cosa pensi che succederà? What do you think will happen, then?)
         a.   Di sicuro, rapidamente, qualcuno farà sparire tutti i documenti
              (cf.(14))
              Without doubt, quickly, someone will make all the documents
              vanish
         b.   *Mah. Rapidamente, NESSUNO farà sparire tutti i documenti
              (cf.(15))
         c.   *Mah. RAPIDAMENTE, qualcuno farà sparire tutti i documenti
              (cf.(16))

Second, only fronting to ModP displays Relativized Minimality effects:

(18)   *Rapidamente, qualcuno probabilmente farà sparire tutti i documenti
         Quickly, someone will probably make all the documents vanish

(19)   Rapidamente, NESSUNO probabilmente farà sparire tutti i documenti
         Quickly, nobody (focus) will probably make all the documents vanish

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[13]The topicalized version (15) and the focalized version (16) require contexts such as (i) and (ii), respectively:

(i)   (Si pensava che qualcuno potesse far sparire i documenti rapidamente, ma...)
         Rapidamente, NESSUNO farà sparire tutti i documenti
         (One would think that someone could make all the documents vanish quickly,
         but...) Quickly, nobody (focus) will make all the documents vanish

(ii)   (Qualcuno farà sparire tutti i documenti troppo piano...) No! TROPPO RAPI-
         DAMENTE, farà sparire tutti i documenti (non troppo piano)
         (Someone will make all the documents vanish too slowly...) No! Too quickly
         (focus), he will make all the documents vanish (not too slowly)

For some reason that remains to be understood, AdvPs (and other non referential XPs) are typically (some exclusively—see below) topicalized (clitic left dislocated) from positions under the scope of negation (as in (15), (19), (22), and (i) above). Cf. Cinque (1990: 89–94).

(20) RAPIDAMENTE, qualcuno probabilmente farà sparire tutti i documenti
      Quickly (focus), someone will probably make all the documents vanish

Third, only fronting to ModP is clause-bound:[14]

(21) *Rapidamente, penso che qualcuno farà sparire tutti i documenti
      Quickly, I think that someone will make all the documents vanish

(22) Rapidamente, penso che NESSUNO farà sparire tutti i documenti
      Quickly, I think that nobody (focus) will make all the documents vanish

(23) RAPIDAMENTE, penso che qualcuno farà sparire tutti i documenti
      Quickly (focus), I think that someone will make all the documents van-
      ish

There is another property which supports Rizzi's finding of a separate ModP in
the CP field which AdvPs can access in addition to accessing TopicP and FocusP:
the existence of a whole class of AdvPs which can freely access the latter two
positions but not the former. In Cinque (1999: section 5.1) it is noted that
"lower adverbs" (from the negative AdvP *mica* downward), as opposed to all
higher ones, cannot precede the subject under normal conditions. See (24)
(= (3) of Cinque (1999: chapter 5)):[15]

(24) a. Maria mica prende il treno
          M. not takes the train
      b. *Mica Maria prende il treno
          Not M. takes the train

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[14]The clause-boundedness of the fronting of AdvPs to sentence-initial position is also
noted in Nakajima (1991: 339, 343), and carries over to such cases as *Probably_i they
say that* t_i *he will not make it.*

See also Ernst (2002: section 8.3.2.4). Chomsky & Lasnik (1993) also note that
"[(i)] is not given the interpretation of [(ii)], as it would be if *carefully* in [(i)] had been
moved from the D-structure position of *carefully* in [(ii)]:

(i) Carefully, John told me to fix the car

(ii) John told me to [fix the car carefully]" (Chomsky (1995: p. 48))

Likewise, in Italian (iii) does not have the same interpretation as (iv), suggesting that
domani 'tomorrow' cannot have moved from the position occupied by *domani* in (iv),
but interestingly it can have the same interpretation as (v), suggesting that movement
is possible from a clause-initial position (cf. Cinque (1990: 89–94):

(iii) Domani Gianni mi ha detto che verrà 'Tomorrow G. told me that he will come'

(iv) Gianni mi ha detto che verrà domani 'G. told me that he will come tomorrow'

(v) Gianni mi ha detto che domani verrà 'G. told me that tomorrow he will come'

Postal & R.Ross (1970) claim that the latter possibility is unavailable in English when
the matrix clause is in the past, but this does not seem to be true in general, to judge
from Haegeman (2006: section 2.3.1).

[15]The ungrammaticality of the lower cases (l. to m.) is actually sharper, as Paola
Beninca' (p.c.) observed, than that of the higher ones. For the impossibility of a pre-
subject positioning of the same adverbs in English, see Jackendoff (1972: 50), Cinque
(1999: 112).

    c.   *Già Maria è di ritorno, per le una
        Already M. is back, at one o'clock
    d.   *Più Maria non mi pensa
        No longer M. thinks of me
    e.   *Ancora Maria gli parla
        Still M. speaks to him
    f.   *Sempre Maria ripete le stesse cose
        Always M. repeats the same things
    g.   *Appena Maria si era coricata, quando squillo' il telefono
        Just M. had gone to bed, when the phone rang
    h.   *Subito Maria mi avvertiva (no focus intonation on subito)
        Immediately M. would call me
    i.   *?Brevemente Maria ci sta parlando della sua avventura
        Briefly M. is telling us about her adventure
    j.   *Quasi Maria cadde dall'emozione
        Almost M. fell for the emotion
    k.   *Completamente Maria distrusse tutto quello che aveva fatto fino
        ad allora
        Completely M. destroyed all that she had done till then
    l.   *Bene Maria fece tutti i compiti
        Well M. did her homework
    m. *Presto Maria si alzava ogni mattina
        Early M. would get up every morning

This can be made sense of if such AdvPs cannot be moved to ModP in the CP field. The fact that they can (with some exceptions) appear in front of the subject if topicalized or focalized is then further evidence that Topicalization and Focalization should be kept distinct, as Rizzi proposes, from Preposing to ModP.

As mentioned at the outset, we assume every extraction out of CP to occur successive-cyclically as dictated by Phase Theory (extractions out of wh-islands included). This means that after fronting of an interrogative *wh*-phrase to the relevant Spec of the Split CP field (InterrP), the extractee targets the edge of the CP phase, which we will call Spec,EP for concreteness (also see Rizzi 2010).

Movement of a phrase to the edge of a *wh*-island should then be possible or impossible depending on the type of phrase which lands there after crossing the phrase(s) found in the left periphery of the CP. So, for example, extraction from a wh-island should be possible only when the phrase in Spec,EP is featurally distinct from the wh-phrase in Spec,InterrP (case (i)c of footnote 1), or is featurally richer than the wh-phrase in Spec,InterrP (case (i)b of footnote 1). This however appears to raise a puzzle in the case of extractions out of wh-islands in Bulgarian.

Before seeing this in section III, we briefly discuss in section II Abels (2012)' proposal to derive the order of phrases in the left periphery from principles of locality.

2.2 On the derivability of the order of elements in the left periphery from Locality.

Abels (2012) suggests that if some local orders in the left periphery could be made to follow from long-distance intervention effects (Locality), then no local order in the left periphery would need to be stipulated. While this may turn out to be possible for certain cases, there are local orders which appear not to be reducible to (long-distance) intervention effects in any simple way. This is shown, for example, by the fact, noted in Krapova (2010: 214) that while (25) is acceptable (26)a is not (even if the reverse is true in root contexts – see (27)a-b):[16]

(25) **This book**$_i$ I wonder **to whom** we should give t$_i$ (Krapova 2010,214)[17]

(26)   a.   *I wonder this book to whom we should give (versus:)
      b.   ?I wonder to whom this book we should give (Watanabe (1993: 122), from Pesetsky (1989))

(27)   a.   ?And this book to whom should we give? (Watanabe 1993,122)
      b.   *To whom this book should we give?

A possible (partial) account of the root/embedded asymmetry would be to say that in embedded contexts interrogative wh-phrases have to raise higher than topics (e.g., to ForceP, in Rizzi's map of the left periphery, perhaps for selectional requirements, in English), while their dedicated position is otherwise lower than topics.

The problem is however compounded by the fact that in English topicalization creates an island for wh-extraction long-distance (see (28), from Haegemann & Ürögdi (2010: 127), which makes it difficult to understand the acceptability of the embedded local order Interr.Wh- > topic on the basis of long-distance intervention effects, though these might in principle account for the root local order:

(28)   *Who did you say that to Sue Bill introduced

In any event the local orders of interrogative wh-phrases and topics do not seem to reduce straightforwardly to the possibility of extracting one across the other long-distance.

Another case in point is provided by the possibility, in Italian, of long-distance extraction of a wh-phrase from a CP containing a Clitic Left Dislocation phrase vs. the impossibility, or near impossibility, of the local order interr. Wh-

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[16]As Abels (2012,233) concedes, if X can cross over Y long-distance, yet cannot precede Y in the left periphery of the same clause (but must follow Y), then such an order cannot be reduced to Locality.

[17]For other examples of Topicalization out of wh-islands in English, see Kayne (1981: fn.33) and Haegemann & Ürögdi (2010: 127).

> Clitic Left Dislocation phrase even in embedded contexts:[18]

(29)   a.   **Come** pensavi **questi esempi** di poterli analizzare?
            How were you thinking these examples of being able to analyse?
       b.   **Chi** pensavi che **questi libri** li avesse spostati
            who were you thinking that these books them had removed?

(30)   a.   *Mi chiedevo **come questi esempi** poterli analizzare
            I was wondering how these examples to analyse them
       b.   Mi chiedevo **questi esempi come** poterli analizzare
            I was wondering these examples how to analyse them

(31)   a.   ??Hanno chiesto **chi questi libri** li ha spostati (Benincà
            2012,33)[19] vs.
       b.   Hanno chiesto **questi libri chi** li ha spostati (Benincà 2012,33)

A further case of mismatch between local and long-distance orders is provided by the order of Interr. wh-phrases and focus phrases. While extraction of a focus phrase from a wh-island and that of a wh-phrase from a clause introduced by a focus phrase are both possible, the order of a focus phrase and a wh-phrase in the same CP (whenever possible[20]) is rigidly ordered, with the focus phrase preceding the interrogative wh-phrase:

(32)   a.   **A GIANNI** (nón a Mario) mi chiedevo **cosa** dare
            To G. (focus) (not to M.) I was wondering what to give
       b.   **Cosa** pensavi **A GIANNI** (nón a Mario) di dare?
            What were you thinking to G. (focus) (not to M.) to give

(33)   a.   Non so **A GIANNI** (nón a Mario) **cosa** dare
            I don't know to G. (focus) (not to M.) what to give
       b.   *Non so **cosa A GIANNI** (nón a Mario) dare
            I don't know what to G. (focus) (not to M.) to give

The final case of mismatch that we discuss between local and long-distance orders is provided by the order of relative pronouns/complementizers and Clitic Left Dislocation phrases. While the extraction of a Clitic Left Dislocation phrase

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[18]In root clauses this order - *Chi questi libri li ha spostati?* 'who these books them has removed' - may be additionally excluded by whatever reason excludes a non topic subject from intervening between the wh- and the verb - *Chi Gianni ha visto?* 'who G. saw?').

[19]"In main – and more easily, in dependent – interrogatives the order wh LD [topic] is acceptable only with a special intonation and interpretation" (Benincà 2012,fn8): in the case of [(31)a] with the wh-phrase receiving a topic intonation followed by a pause. Cf. Benincà (2012: fn8)) for a possible suggestion as to why this order is easier in dependent than in root contexts. The contrast appears to be sharper in infinitival interrogatives (cf. (30) vs. (31)).

[20]The co-occurrence of a focus phrase and a wh-interrogative appears to be possible in embedded contexts (see (33)a), but not in root clauses for reasons that remain to be fully understood (for a possible reason see Rizzi (2001b: §2)).

from the relative clause type discussed above (see (3)d and (ii)a-c of footnote 6 above) is possible ((34)), the order of a Clitic Left Dislocation phrase wrt the relative pronoun/complementizer is strictly relative pronoun/ complementizer > Clitic Left Dislocation phrase ((34)b-c):

(34)   A Gianni$_i$ non conosco [nessuno che sarebbe disposto a parlare t$_i$]
         To Gianni I know noone that would be willing to talk

(35)   a.   Non conosco [nessuno che a Gianni$_i$ sarebbe disposto a parlare t$_i$]
               I know noone that to Gianni would be willing to talk
         b.   *Non conosco [nessuno a Gianni$_i$ che sarebbe disposto a parlare t$_i$]
               I know noone to Gianni that would be willing to talk

For further discussion of the question whether local orders can be made to follow from long-distance ones, see Callegari (2014).

We turn now to consider the puzzles represented by extractions from wh-islands in Bulgarian.

2.3   Some puzzles concerning extraction from wh-islands in Bulgarian.

Bulgarian wh-questions obligatorily front all of the wh-phrases in a rigid order (Rudin (1981), Rudin (1986), Rudin (1988), Krapova & Cinque (2008), and other works cited there):

> *koj*   > *kogo*   > *na kogo*   > *koga*   > *kăde*   > *kakvo* > *kak*
> who   whom   to whom   when   where   what   how
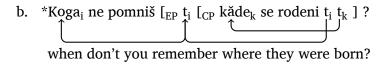> (Krapova & Cinque 2008)

For example, when they move to CP the temporal wh-phrase *koga* has to precede the locative wh-phrase *kăde*, which in turn has to precede the manner wh-phrase *kak* (see Krapova & Cinque (2008) for the order of other wh-phrases and for the apparent free ordering of some of them, when one or the other is D-linked or Clitic Left Dislocated).

Given the independent evidence for assuming that temporal phrases are merged higher than locative phrases, which in turn are merged higher than manner phrases, Krapova & Cinque (2008) following Starke (2001: 76-83 and 149-153) proposed a qualification of the principle of RM to the effect that only an entire chain, not just one link of a chain, counts as an intervener. This allowed us to account for the fact that the movements indicated in (36) do not violate RM (in fact preserving the order of Merge in the derived position). In the derived representation, each of the wh-phrases spans over not a whole chain but just one link of a chain:

(36)   Koga$_i$ kăde$_j$ šte xodiš tova ljato   t$_i$ t$_j$?
       when where will you.go this summer?

The impossible order in (37) was there taken to violate RM under this qualification because the chain of *kăde* spans over the entire chain of *koga* (koga$_i$ …t$_i$):

(37)   *Kăde$_j$ koga$_i$ šte xodiš tova ljato   t$_i$ t$_j$?
       where when will you.go this summer?

This qualification of RM leads however to a first puzzle if we consider the extraction of one of them across the wh-island created by the other. Consider (38)a-b:

(38)   a.   *Kăde$_k$ ne pomniš [$_{EP}$ t$_k$ [$_{CP}$ koga$_i$ sa rodeni t$_i$ t$_k$] ?

            where don't you remember when they were born?

       b.   *Koga$_i$ ne pomniš [$_{EP}$ t$_i$ [$_{CP}$ kăde$_k$ se rodeni t$_i$ t$_k$] ?

            when don't you remember where they were born?

The ungrammaticality of (38)b is unexpected as the extraction of *koga* to the CP edge (Spec,EP) on its way to the matrix clause only spans over one link of a chain, not an entire chain. And yet the result is ungrammatical.

Even if evaluation of RM (with Krapova and Cinque's 2008 qualification) is limited to a phase we would not be able to rule out (38)b, it seems. At the end of the phase corresponding to the clausal complement of *pomniš* ' you.remember' ([$_{EP}$]) no entire chain is crossed; only one *link* of a chain, and from Spec,EP to the next phase neither entire chains nor links of a chain are crossed.[21]

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[21] Even extraction in one fell swoop (in a framework without phases) would seem not to violate RM (under Krapova and Cinque's 2008 qualification). See (i) and (ii), which represent the two possible options: extraction from the derived position in CP (which we are in fact going to argue is not possible) and extraction from the in-situ position of Merge. This is the case for both *kăde* 'where' and *koga* 'when' in (i), and at least for *koga* 'when' in (ii):

(i)   a.   *Kăde$_k$ ne pomniš [$_{CP}$ koga$_i$ t$_k$ sa rodeni t$_i$ t$_k$]
            Where don't you remember when they.were born?
       b.   *Koga$_i$ ne pomniš [$_{CP}$ t$_i$ kăde$_k$ sa rodeni t$_i$ t$_k$]
            When don't you remember where they.were born?

(ii)   a.   *Kăde$_k$ ne pomniš [$_{CP}$ koga$_i$ sa rodeni t$_i$ t$_k$]
            Where don't you remember when they.were born?

A possibility to consider is that Krapova and Cinque's (2008) qualification only holds when the wh-phrases are attracted by the same type of features, in the case of (36) and (37) criterial features, in which case any further movement would be prevented by Criterial Freezing (Rizzi (2006)). If one of the two is attracted by a different feature to a non criterial position, say Spec,EP on its way out of the wh-island, even a single link of a chain counts as an intervener and is enough to cause a violation as in standard RM; whence the ungrammaticality of (38)a-b.

There are two additional puzzles that need to be addressed.

The first concerns the fact that while it is possible to extract either *kăde* or *koga* from a complement *če* clause (cf. (39)a-b), the two of them cannot be extracted together, even in the order (*koga kăde*) that rigidly obtains within a single clause (cf. (40)a-b):

(39)   a.   Koga$_i$ misliš [t$_i$ če Ivan e otišăl na kino t$_i$]?
           when do.you.think that Ivan has gone to the cinema?
       b.   Kăde$_j$ misliš [$_{EP}$ t$_j$ [če Ivan e otišăl t$_j$ včera]?
           where do.you.think that Ivan has gone yesterday?

(40)   a.   *Koga$_i$ kăde$_j$ misliš[$_{EP}$ t$_i$ t$_j$ [če Ivan e   otišăl t$_i$ t$_j$]]?
           when where do.you.think   that Ivan has gone?

           (Cf. Koga **i** kăde misliš če Ivan e otišăl? 'When **and** where do you think that Ivan has gone?')
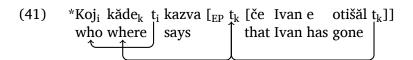
       b.   *Kăde$_j$ koga$_i$ misliš[$_{EP}$ t$_i$ t$_j$ [če Ivan e   otišăl t$_i$ t$_j$]]?
           where when do.you.think   that Ivan has gone

           (Cf. Kăde **i** koga misliš če Ivan e otišăl? 'Where **and** when do you think that Ivan has gone?')

This might follow, as Luigi Rizzi suggested to us, if only a single escape hatch (a single Spec,EP) is available, so that while one of the wh-phrases will be attracted to it the other will be trapped inside the lower CP phase, thus being unable to raise to the matrix COMP.

The second puzzle concerns the fact that no wh-phrase can be extracted from a *če* complement clause if another wh-phrase is fronted in the matrix clause even when their order complies with the rigid order obtaining within a single clause. See (41):

       b.   *Koga$_i$ ne pomniš [$_{CP}$ kăde$_k$ sa rodeni t$_i$ t$_k$]
           When don't you remember where they.were born?

(41)   *Koj$_i$ kăde$_k$ t$_i$ kazva [$_{EP}$ t$_k$ [če Ivan e   otišăl t$_k$]]
        who where │ says   │ that Ivan has gone

Tentatively, this might also follow if Krapova and Cinque's (2008) qualific-
ation only holds if both the features of the probe (the criteral features of the
matrix COMP) and the relevant features and the goal (the features of the foot
of the chain) are identical. In (41), after the lower phase is sent to PF, t$_k$ in
Spec,EP and t$_i$ in the matrix clause have at least one feature that differs. The
former is $[+\text{A-bar}]$, the latter $[+\text{A}]$.

All the facts reviewed so far concerning wh-movement in Bulgarian seem
to us to point to the following generalization: the qualification of RM proposed
in Krapova and Cinque (2008) following Starke (2001) should be limited to
multiple movements of phrases which are merged *in the same phase* and are
attracted by the same type of features, with the effect of preserving their order
of Merge.[22] In all other cases crossing even of a single link of a chain induces
violation of RM.

Apart from the restrictions imposed by RM extraction from CP through
Spec,EP is essentially free, in stark contrast with extraction from DP, which
is extremely selective, to judge from languages like Italian and Bulgarian, as
we briefly discuss in the next section.

2.4   Extraction out of DP in Bulgarian.

As argued in detail in Cinque (2014), only what qualifies as the subject of the
DP can extract from it in Italian. The same is apparently found in Bulgarian. Of
all DP-internal *na* 'of'-phrases, only the one which introduces the subject of the
DP can extract.

The empirical generalizations appear to be the following:

i) DP-internal arguments and adjuncts introduced by a preposition different
from *na* 'of' (as in e.g. (42) containing the preposition *za* 'for') cannot be ex-
tracted;

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[22]The same appears to be true of scrambling in West Flemish, which preserves the
order of Merge of SU, IO and DO within a single clause (Haegeman (1993) and p.c.).
See also Starke (2001: 76ff).

(i)   a.   da Valère$_i$ de studenten$_j$ dienen boek$_k$ verzekerst t$_i$ t$_j$ t$_k$ gegeven eet
              that Valère the students   that   book probably   given   has
        b.   *da de studenten Valère dienen boek verzekerst gegeven eet
        c.   *da dienen boek Valère de studenten verzekerst gegeven eet
        d.   *da Valère dienen boek de studenten verzekerst gegeven eet
        e.   *da dienen boek de studenten Valère verzekerst gegeven eet

(42)   PPs other than *na* 'of'-phrases

    a.   [_DP obštoprietoto mnenie **za   tazi kniga**]
              common.the opinion about that book
              'the common opinion about that book'

    b.   *Tova e **knigata**, [**za kojato**]_i ne   pomnja   [_DP
              this   is the.book on which   don't remember.1sg
              obštoprietoto mnenie t_i]
              the.common opinion

ii) (Dative = Indirect object) *na* 'to'-phrases[23] which introduce a Goal cannot be extracted, (43b);

(43)   Indirect object *na*-phrase

    a.   [_DP razdavaneto   na nagradi **na detsata**]
              giving-out.the of awards to children.the
              'the distribution of awards to the children'

    b.   *Tova sa **detsata,**   [**na koito**]_i pomnja   [_DP
              these are children.the to   whom remember.1sg
              razdavaneto   na nagradi t_i]
              giving-out.the of awards

iii) (Genitive = Possessive) *na* 'of'-phrases corresponding to the syntactic object cannot be extracted, cf. (44b).

(44)   Direct object *na*-phrase

    a.   [_DP negovoto opisanie   **na apartamenta**]
              his.the   description of apartment.the
              'his description of the apartment'

    b.   ***apartamenta**, [**na kojto**]_i ne pomnja   [_DP negovoto
              apartment.the of   which not remember.1sg   his.the
              opisanie   t_i]
              description

iv) Directional *na* 'to'-phrases corresponding to the Directional Themes cannot be extracted, cf. (45b).

(45)   Directional *na*-phrase

    a.   [_DP pristiganeto **na letište Sofia**]
              arrival.the   at airport Sofia
              'the arrival at the Sofia airport'

    b.   ***letište Sofia,** [**na koeto**]_i vidjax [_DP negovoto pristigane t_i]
              airport Sofia, at   which I.saw   his.the   arrival

This leaves only (Genitive) *na* 'of'-phrases which correspond to the syntactic

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[23]The preposition *na* in Bulgarian is ambiguous between a 'Dative', a 'Genitive' and a Directional preposition, which is why in this section, we represent it with different glosses according to grammatical context and interpretation.

subject as possible extractees. The following *na*-phrases qualify as subjects of the DP and indeed can be extracted:[24]

a) *Experiencer* na *'of'-phrases*:

(46)   măžăt,   [**na kojto**]$_i$ šte pomnja   vinagi [$_{DP}$ želanijata t$_i$]
        man.the, of   whom   will remember-1sg always   desires.the
        'the man, whose desires I will always remember', lit. 'The man of whom I will always remember the desires'

b) *Theme* na *'of'-phrases of obligatory passive nominals*:[25]

(47)   prestăpnika, [**na kojto**]$_i$[26] gledax   [$_{DP}$ arestuvaneto t$_i$] po
        criminal.the of   whom   watched.1sg   arrest.the   on
        televizijata
        TV.the
        'the criminal whose arrest I watched on TV', lit. 'the criminal of whom I watched the arrest on TV…'

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[24]See Cinque and Krapova (2013) for a more detailed discussion on the diagnostics that unequivocally single out the subject of the DP in Bulgarian.

[25]The Theme is the single available argument with obligatory passive nominals and it is expressible by a *na*-phrase. In Bulgarian, such nominals typically end in *–ne*, e.g. *pečene* 'baking', *oprazvane* 'emptying', *prepisvane* 'copying', *zalavjane* 'capture', *uništoženie/uništožavane* 'destruction', *rešavane* 'solving/solution', *otkrivane* 'discovering/discovery', *objasnjavane* 'explaining/explanation' An example is given in (i). See Cinque & Krapova (2013) for more details and an analysis.

(i)   zalavjaneto na vojnika   (ot vraga)
       capture.the of soldier.the by enemy.the
       'the capture of the soldier (by the enemy)'

[26]Bulgarian possesses a standard, i.e. literary form for the oblique uses of human referents (*kogo* 'whom-Interrogative', resp. *kogoto* 'whom-rel.') which however is often neutralized (appearing as the default *koj/kojto*) in colloquial speech. This is the form we illustrate here.

c) *Theme* na *'of'-phrases of optionally passive nominals:*[27]

(48) problema, [**na kojto**]ᵢ toku-što čuxme   [DP interesnoto
      problem.the of which just-now heard.1pl   interesting.the
      objasnenie tᵢ] (ot profesora)…
      explanation   (by professor.the),..
      lit. 'the problem, of which we just heard the interesting explanation
      (by the professor),..'

d) *Agent* na *'of'-phrases of optionally active nominals:*

(49) profesorǎt, [**na kojto**]ᵢ toku-što čuxme   [DP interesnoto
      professor.the, of whom just-now heard.1pl   interesting.the
      objasnenie na problema   tᵢ]
      explanation of problem.the
      'the professor whose interesting explanation of the problem we have
      just listened to', lit.'the professor, of whom we have just listened to the
      interesting explanation of the problem.'

e) *Na* 'of'-phrases corresponding to the single possessivizable argument in un-
ergative and unaccusative nominals:[28]

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[27]In Cinque and Krapova (2013) we identify a class of derived nouns in Bulgarian
corresponding to transitive verbs and allowing for an active or a passive configuration.
In the former case nouns combine simultaneously with a subject argument (typically
an Agent) and an object argument (typically a Theme), cf. (i) below, while in the
latter case -- cf. (ii) below -- they combine only with a subject Theme while optionally
taking an *ot* 'by'-phrase. The nominals belonging to this class typically end in *–nie*, e.g.,
objasnenie 'explanation', *rešenie* 'solution', *opisanie* 'description', *narušenie* 'violation',
povišenie 'raise', etc.

(i)   Agent, Theme = active configuration

         na Ivan opisanieto   na novodošlata
         of Ivan description.the of newcomer.fem.the
         'Ivan's description of the newly arrived lady'

(ii)   Theme, Agent *by*-phrase = passive configuration

         opisanieto   na novodošlata   (ot Ivan)
         description.the of newcomer.fem.the (by Ivan)
         'the description of the newly arrived lady (by Ivan)'

[28]As is well-known, unaccusative nouns, (in Bulgarian e,g., *pristigane* 'arrival', *zam-
inavane* 'departure', *padane* 'fall', etc.) and unergative nouns (e.g. *protest* 'protest',
reakcia 'reaction', *obrǎštenie* 'appeal', etc.) possess a single argument corresponding
to a different theta-role (Agent or Theme), depending on the subclass. This argument
inevitably qualifies as the subject. Examples are given in (i) and (ii):

(i)   pristiganeto na vojnika   (Theme)
         arrival.the of soldier.the
         'the arrival of the soldier'

(50)   a.   Učenijat,   [**na kojto**]$_i$ ne pomnja   [$_{DP}$ poslednoto
            scientist.the of   whom not remember.1sg   last.the
            otkritie   t$_i$]
            discovery
            'the scientist, whose last discovery I don't remember'
       b.   [**Na koj**]$_i$ vidjaxte pristiganeto t$_i$?
            of   whom saw-2pl arrival.the
            'Whose arrival did you see?'
       c.   măžăt, [**na kojto**]$_i$ vsički vidiaxme [$_{DP}$ neočakvanija   spasitel
            man.the of   whom all   saw   unexpected.the savior
            t$_i$]
            'the man whose unexpected savior we all saw'

Given this set of data, we arrive at the generalization in (51) which we believe follows from the tenets in (52) (cf. Cinque (2014):

(51)   Only genitive *na* 'of'-phrases corresponding to the *syntactic subject* can be extracted.

(52)   a.   DPs are phases (which forces movement to the highest specifier of DP (Spec,EP), before extraction takes place).
       b.   The highest specifier of DP (the one through which extraction takes place) is an A- (rather than an A'-) position, as the evidence seems to suggest (there are no Wh-Interrogative, Topic, or Focus positions in the left periphery of the DP in either Italian or Bulgarian – cf. Giusti (1996: 107), Cinque and Krapova 2013, Cinque 2014,§3).[29]
       c.   Movement is subject to locality conditions; specifically, to RM.

From these three tenets it follows that any extraction from DP other than the subject's will cause a violation of RM, due to the intervention of the subject of DP (also an A-position), thus yielding an account of the original generalization (a phrase with a + A feature crossing over a phrase with a + A feature - see (2)c. above).

If the Spec of the edge reflects in its feature composition the feature composition of the overt phrases in the respective left peripheries the crucial difference between CP and DP (in Italian and Bulgarian; possibly more generally) in the extraction out of each rests on the presence in the former of a rich A-bar periphery as opposed to the single + A(rgument) periphery of the latter. Whence the more severe restrictions on extraction from DPs than on extraction from CPs under RM.

(ii)   protestăt   na vojnika   (Agent)
         protest.the of soldier.the
         'the soldier's protest'

[29]On possessors in object and result nominals in Bulgarian and Greek see Giusti & Stavrou (2008).

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