Argument/Adjunct (A)symmetries

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Negation and negative operators block extraction of adjuncts, while they leave extraction of arguments unaffected (see Ross(1983) for the initial empirical observation):

(1)a   How do(*n't) you think that John talked to Mary t?

   b   Who do(n't) you think that John talked to t?

In previous work (Rizzi 1990) I suggested that this asymmetry should receive a unified treatment with the familiar argument/adjunct asymmetries induced by Wh Islands under the ECP module:

(2)a * How do you wonder whether John talked to Mary t?

   b ? Who do you wonder whether John talked to t?

A unified analysis of locality on adjunct extraction was made possible by a relativization of the minimality principle on government, Relativized Minimality (RM). This principle also attempted to unify the locality effects on A' chains with other apparently quite different kinds of locality such as the Head Movement Constraint and the ban against Super-raising in A chains, illustrated in (3) and (4), respectively:

(3) * Have they could t left? (cf. Could they t have left?)

(4) * John seems that it is likely t to win

A number of questions bearing on different aspects of the attempted unification have been raised in the recent literature. First of all, some authors have claimed that negative islands (and other "weak" islands, in the sense of Cinque (1990)) are best treated in semantic (Szabolcsi & Zwarts 1991) or pragmatic (Kroch 1989) terms; if this were correct, a unitary treatement with purely structural constraints such as the Head Movement Constraint would be out of question. Secondly, one outstanding problem for the attempted unification of locality in A and A' chains is that the former do not manifest any argument / adjunct asymmetry. In fact, A chains uniformly manifest the strong locality conditions that are characteristic of adjunct chains in the A'-system, whatever the nature of the moved element: for instance, referential arguments and quasi-arguments of idiomatic expressions both exclude Super-raising with comparable force (FN1):

 (5)a * Advantage seems that it is likely to be taken t of John

   b * John seems that it is likely to be taken advantage of t

The central aim of this paper is to argue for the validity of the unified analysis of (1), (2) and (4) in strictly configurational terms.

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Two lines of argument will be pursued:

1. we will improve the RM mechanism responsible for the argument/adjunct asymmetries by sharpening its reference to Thematic Theory; this will permit a better understanding of the mentioned difference between the A and the A' system;

2. we will analyze an unexpected hybrid object: in some special constructions, A' chains don't exhibit any argument/adjunct asymmetry, and show a uniform requirement of strong locality, on a par with A chains. This unexpected behavior will be shown to follow from the configurational approach to weak islands and the characterization of the argument/adjunct divide in terms of Theta Theory.

1. Relativized Minimality

A uniform analysis of (1)a, (2)a, (3), (4) can be given through the assumption that the antecedents must be connected to their traces via a chain of antecedent government relations, and that the following minimality condition holds on government: a certain type of government relation is blocked by the intervention of a potential governor of the same type. More formally:

(6) Relativized Minimality: a government relation between X and Y is blocked if there is a Z such that:
a. Z is phrase-internal, non thematic
b. Z is a position of the same type as X
c. Z c-commands Y and does not c-command X

(6)a is intended to exclude from the picture adjoined phrases and thematic argument positions which do not seem to give rise to minimality effects. Intervention effects are exclusively induced by heads and A and A' specifiers.
(6)c expresses intervention in terms of c-command.
(6)b expresses the relativization to the type of government. The theory specifies three kinds of positions that may be involved in government relations (antecedent government or head government): head positions and maximal projections in A or A' positions.(FN2)

Consider how (6) works for the different types of positions. If X is a head (hence we are checking head-government, or antecedent government in X' chains), potential interveners are heads; if X is an A' position (hence we are checking antecedent government in a Wh chain), potential interveners are A' specifiers (the only A' positions meeting the definition: adjoined positions are excluded by (6)a); if X is an A position (hence we are checking antecedent-government in NP-chains), potential interveners are A-specifiers, subjects (complements and other thematic positions are again excluded by (6)a).

So, in (2)a a crucial antecedent-government relation in the A' chain is blocked by the intervention of the lower Spec of C, hence the structure is ruled out. (1)a can be reduced to the same structural explanation if we assume that negative clauses involve an autonomous negative projection, NegP (Pollock 1989, Belletti and subsequent work) whose spec is always filled by a negative operator at the latest at LF.(FN 3)

(7)   Op ⟍ Neg P ⟍ Neg'
                  Neg ⟍   ...   367
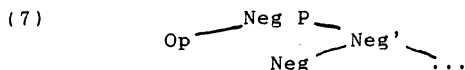
The specifier may be filled by a sentential negation operator, phonetically realized, as French _pas_, presumably English _not_, West Flemish _nie_, or phonetically null, as in Italian, Spanish etc.. Alternatively, it may be filled (at the latest at LF) by the movement of a negative quantifier. The negative head may be phonetically realized as French _ne_, Italian _non_, West Flemish _en-_ (optionally), or null, as in English, German, etc. Such a uniform substructure will have an effect analogous to the effect of Wh CP's: the intervention of the A' specifier will block an antecedent government relation in A' chains. Negative Islands and Wh Islands can thus receive a uniform treatment under RM.

The head movement constraint and the ban against Super-raising also follow straightforwardly from (6): in (3) antecedent government of t from _have_, an X°, is blocked by the intervention of _could_, another X°; in (4), antecedent government of t from _John_, an A position, is blocked by the intervention of _it_, an A specifier.

2. Arguments, adjuncts and Theta Theory

Why is it that argument extraction is not sensitive to the intervention of an A' specifier in (1)b, (2)b? In Rizzi (1990, ch. 3) I argued that argument variables are allowed to bear a referential index, which makes it possible for them to be connected long-distance with their operator through a binding relation, insensitive to RM. (FN 4)

In the case of adjunct variables the referential indexation is not available, hence the connection with the operator can only be established via a chain of government relations, sensitive to RM; whence the stricter locality on adjunct extraction.

The system then relies on a sharp enough definition of the conditions on the licensing of referential indices. In RM I suggested that a referential index is licensed by an argumental Th role, a Th⁻role corresponding to a participant in the event (Agent, Patient, Goal, etc. but not Quantity, Manner, etc.). We can then think of such an index as identifying the bearer of that role. Indices so anchored into thematic structures can connect elements at an unbounded distance. (FN 5)

This approach properly captures the asymmetries observed in the A' system, but, as was repeatedly pointed out, it does not immediately capture locality in the A system. In particular, the explanation of the ban against Super-raising provided by RM is endangered by the indexation idea. Consider relevant cases such as (4), repeated here:

    (4) * John seems that it is likely t to win

The antecedent government relation between _John_ and t is blocked by the intervention of the A specifier _it_, under RM; but why couldn't the relation be established via binding, given that a

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referential Th role is associated to the chain? To phrase the same problem in different terms, we should ask why it is the case that argument/adjunct asymmetries only arise for A' chains, while antecedent government is uniformly required in A chains. The answer provided in Rizzi(1990) dealt with the problem by stipulating the observed distinction between A and A' chains, i.e. by stating that the former require antecedent government. On the other hand, Guglielmo Cinque observed that the special status of A-chains may be more interestingly derived from the fact that A-traces never are arguments for Theta Theory. A narrower characterization of the index licensing device can capitalize on this property.

I would like to slightly modify the RM approach by introducing a particular implementation of Cinque's suggestion. An initial approximation would be to restrict the possibility of referential indexation to the _argument_, rather than extending it to any member of a chain receiving an argumental Theta role. As NP-traces are non-arguments, they could not carry a referential index, therefore they should be connected to their antecedents via government, and would be subjected to the relevant subcase of RM. (4) and (5) would then be uniformly ruled out.

This still is too narrow a characterization for A' dependencies: in order to allow binding in the relevant A' chains, in addition to permitting a referential indexation on an argumental variable, we must permit the indexation of the operator, certainly a non-argument at SS and LF, as in (8)a:

(8)a   Whom$_i$ have you seen t$_i$?

   b   You have seen whom

But notice that in the corresponding DS (8)b the operator is in a thematic position, hence it must count as an argument on this level, for the Theta Criterion to be fulfilled; so, one could assume that an element can carry a referential index only if it is an "argument" on some level of representation, in the specific sense defined by Theta Theory: (FN 6)

(9)   X can carry a referential index only if it bears an argumental Theta role on some level of representation

Consider A' chains of adjuncts:

(10)   How did he speak t

Here the A' chain contains no argument (no argumental or other Theta Role is assigned to it), hence neither the operator nor the variable can carry a referential index, binding is not available, the connection must be established via government; therefore, the relevant case of RM is operative and determines the strong locality effect that is manifested on this kind of relation, sensitive to Wh islands, negative islands and other "weak" islands.

Consider now A chains:

(11)   John was fired t

In (11) <u>John</u> is the bearer of an argumental Th role, then it can legitimately carry an index. But the NP trace t, under current assumptions, always is a non-argument: at DS it does not exist, at SS it must pass the Th role on to the argument <u>John</u>; hence, under (9) the NP trace can't carry a referential index; as the connection with its antecedent cannot be established via binding, it must be established via government; therefore, under the relevant case of RM, the relation can never skip an intervening A specifier, and Super-raising cases such as (4), (5) are banned in full generality. (FN 7)

In the remainder of this paper I would like to show that the lack of argument/adjunct asymmetries is not the exclusive property of A-chains. Some special cases of A' chains display the same behavior, in that they uniformly require strict locality. This special behavior can be shown to follow from our technical definition of the argument/adjunct divide.

3. Partial Wh Movement in German

A complex case of negative island strongly inviting a configurational analysis is offered by the partial Wh movement construction in colloquial German (Riemsdijk 1983). I will follow here the thorough description and analysis of McDaniel(1989).

In some varieties of German, a wh element can be extracted from an embedded clause (as in (12)a), or moved to the Spec of C of the embedded clause and construed with an invariable scope marker (<u>was</u>) in the main Spec of C (as in (12)b). As (12) shows, the partial Wh movement strategy is blocked by an intervening negation, while full movement is not:

> (12)a Mit wem glaubst du (nicht), dass Hans t gesprochen hat?
>   With whom do(n't) you believe that Hans has spoken?

>   b Was glaubst du (*nicht), mit wem Hans t gesprochen hat?
>   WHAT do(n't) you believe with whom Hans has spoken?
>   (=(12)a)

According to McDaniel's analysis, <u>was</u> is a kind of expletive in the A' system, connected to the contentive operator through an A' chain. I will assume that the construction of such a chain is enforced at S-structure by the necessity to satisfy the Wh Criterion on this level, as is required in German (see Rizzi 1991, fn. 8; cf. also McDaniel's (1989) principle (38)):

(13) Wh Criterion

> A. A Wh Op must be in a Spec/head relation with an X°
>   +WH

> B. An X° must be in a Spec/head relation with a Wh Op
>   +WH

The part of the Wh Criterion that is relevant here is principle A, which requires that a Wh operator be in the Spec of C of an interrogative clause (marked with the feature +WH). The level of application of this principle may vary across languages, and it

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must be satisfied by S-structure in German (as in English, etc., but not in Chinese, Japanese, etc. where it must be satisfied only at LF): as a consequence of clause A of the Wh Criterion, a Wh element cannot be left in a "wrong" spec of C, e.g., the Spec of the -WH C° of a declarative clause. How can this constraint be reconciled with the very existence of partial Wh Movement in German, which manifestedly allows Wh Op's to stay in "wrong" Spec's of C at S-structure? Suppose we interpret "Wh Operator" in (13) as meaning "the head of the chain of the Wh Operator". Then, a Wh Op can be allowed to sit in a "wrong" Spec of C provided that it is chain connected to an expletive operator (the head of its chain) in the appropriate Spec of C. (FN 8)

Therefore, the creation of a chain including the contentive and the expletive operator at S-structure is enforced by the Wh Criterion.

At S-structure, we thus have the following chain structures for (12)a and b:

(12')a (mit wem, t)

b (was, mit wem, t)

The link (was, mit wem) of (12')b cannot be established through binding: the expletive operator was does not carry an argumental Th role on any level of representation, hence it cannot bear a referential index under (9). So, the link must be established through government, and it fails when a negation intervenes under RM; hence, the negated variant of (12)b is ruled out, ultimately as a violation of the Wh Criterion at S-structure. On the other hand, mit wem can carry a referential index in (12)a, the chain can be built via binding, therefore it is unaffected by the intervention of negation.

Notice that in partial Wh Movement constructions the argument/adjunct asymmetry is wiped out: structures like (12)b with partial movement of an argument and an intervening negation are not better than the corresponding structures with partial movement of an adjunct:

(14)a Was hast du (*nicht) gesagt, wie sie geschlafen hat?
       WHAT did you (not) say how she slept?
       (= How did you (not) say that she slept?)

b Was hast du (*nicht) gesagt, warum sie nicht kommt?
   WHAT did you (not) say why she does not come?
   (= Why did you (not) say that she does not come?)

This is expected under principle (9): the expletive operator can never have a referential index licensed under (9), regardless of whether the variable is an argument variable (a variable ranging over individuals) or not. We then expect this special type of A' dependency to uniformly require antecedent government, on a par with A dependencies. (FN 9)

Dana McDaniel points out (p.c.) that Romani manifests a similar pattern: full wh movement is (marginally) acceptable across an intervening negation, partial wh movement is not: (FN 10)

(15)a ? Kas   na   misline   so o Demiri dikhl a t?
       Whom   don't you think   that Demiri saw   ?

    b * So   na   misline   kas o Demiri dikhl a t?
        WHAT   don't you think   whom Demiri saw?

As is expected, an intervening Wh operator patterns on a par with
an intervening negation in blocking partial movement. The
relevant contrasts are obscured in German by the particularly
robust nature of the Wh Island in this language, but they appear
to be clearly detectable in Romani. McDaniel (1989: 577) points
out that overt Wh extraction from a Wh island gives rise to a
marginally acceptable sentence in Romani (as in (16)a), whereas
partial movement across a Wh island is ungrammatical (as in
(16)b):

    (16)a (?) Kas na jane sosqe o Demiri mislinol so marjum t?
              Who don't you know why Demiri thinks that I hit?

       b * So na jane sosqe o Demiri mislinol kas marjum t?
              WHAT don't you know why Demiri thinks whom I hit?

In (16)b, only the government connection is available to build a
proper Wh chain, but antecedent government is blocked by the
embedded Spec of C (sosqe) intervening berween so and kas under
RM. So, (16)b is ruled out, ultimately as a violation of the Wh
Criterion. In (16)a the binding connection between kas and its
trace is available under (9), therefore the structure is
acceptable.

            4. No Wh Extraction from Negative clefts.

A clefted constituent can be negated or questioned, but not
negated and questioned at the same time:

(17)a   It is John that we should help

    b   It is not John that we should help

    c   Who is it ___ that we should help?

    d * Who is it not___ that we should help?

This paradigm holds quite robustly across languages: the
following small sample includes French, Italian, West Flemish,
Modern Hebrew:

(18)a   Ce (n') est (pas) Jean que nous devrions aider
        It   is (not) Jean that we should help

    b   Qui (*n') est-ce (*pas) que nous devrions aider?
        Who   is it (not) that we should help?

(19)a   (Non) è Gianni che dovremmo aiutare
        It (not) is Gianni that we should help

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 b Chi (*non) è che dovremmo aiutare?
   Who it (not) is that we should help?

(20)a T is Valère (nie) dan-k doa gesien een
   It is V. (not) that-I there seen have

 b Wien is-t (*nie) dan-k doa gesien een?
   Who is-it (not) that-I there seen have?

(21)a ze (lo) haya xatul she-ra'ita
   it (not) was the cat that you saw

 b ma ze (*lo) haya she-ra'ita?
   What it (not) was that you saw?

There is nothing wrong with the interpretation of the starred variants of these sentences, were they grammatical they would have a perfectly sensible meaning: "Which individual x is such that it isn't x that we should help?" So, there appears to be a structural ban against questioning negative clefts. Notice that here as well, the argument/adjunct asymmetry is wiped out, in spite of the fact that we are dealing with an A' dependency: extraction of <u>who</u> in cases like (17)d is completely impossible, about as bad as adjunct extraction in the same context:

(22)a It is not in this way that they should behave

 b How is it (*not) that we should behave?

I would like to argue that this is another instance of negative island: the intervening negation blocks Wh movement. But if this is correct, why don't we find the familiar asymmetries? A natural answer is provided by the index licensing mechanism (9) in conjunction with the analysis of the cleft construction of Chomsky(1977). According to this analysis, the focussed element is base-generated in focus position and the cleft sentence is predicated of it. An empty operator binds the variable inside the cleft and is construed with the focussed element, as in (23)a; the focussed element can undergo Wh Movement, as in (23)b:

(23)a It is John [Op that [we should help t]]

 b Who is it t' [Op that [we should help t]]

We can think that there are two chains here, one including the variable and the null operator, the other including the clefted element and, if the latter is a variable, its operator; hence, in (23)a the two chains are (John), (Op, t), and in (23)b they are (Who, t'), (Op, t). We may wonder why such structures as (23) are well formed in spite of the fact that no Th role is assigned to the arguments <u>John</u>, <u>t'</u>. We will assume that elements base-generated in the focus position of clefts are exempted from the Th criterion, and only submitted to the principle of full interpretation requiring them to be licensed; so, <u>John</u> is licensed in (23)a as the topic which the cleft sentence is predicated of. (FN 11)

The crucial property here is that the chain (Who, t') is not directly associated to a Th role, and the variable t' does not receive referential indexation under (9). Hence, the binding

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connection is excluded, only the government connection remains, but it is blocked by an intervening negation under RM. No argument/adjunct asymmetry arises here because the focussed element never is an "argument" in the relevant technical sense, as defined by Theta Theory. (FN 12)

In this case too it is possible to draw a parallel between negative islands and wh islands, which also strongly disallow Wh extraction of a clefted element. A cleft can be rather naturally embedded in a declarative or interrogative clause in Italian and French. Wh extraction of the clefted element is somewhat marginal in the first case, but completely impossible in the second:

(24)a   Credo che sia Gianni che dobbiamo contattare
         I believe that it is Gianni that we should contact

     b ? Chi credi che sia t che dobbiamo contattare?
         Who do you believe that it is that we should contact?

(25)a   Mi domando se sia Gianni che dobbiamo contattare
         I wonder if it is Gianni that we should contact

     b * Chi ti domandi se sia t che dobbiamo contattare?
         Who do you wonder if it is that we should contact?

(26)a   Tu crois que c'est Jean que je dois contacter
         You believe that it is Jean that I should contact

     b ? Qui tu crois que c'est ___ que je dois contacter?
         Who do you believe that it is that I should contact?

(27)a   Tu te demandes si c'est Jean que je dois contacter
         You wonder if it is Jean that I should contact

     b * Qui tu te demandes si c'est ___ que je dois contacter?
         Who do you wonder if it is that we should contact?

Here too, no argument/adjunct asymmetry is found: examples like (25)b, (27)b are completely impossible, at the same level of inacceptability as adjunct extraction in the same context:

(28)a   Credo che sia così che ci dobbiamo comportare
         I believe that it is like that that we should behave

     b ? Come credi che sia ___ che ci dobbiamo comportare?
         How do you believe that it is that we should behave?

(29)a   Mi domando se sia così che ci dobbiamo comportare
         I wonder if it is like that that we should behave

     b * Come ti domandi se sia ___ che ci dobbiamo comportare?
         How do you wonder if it is that I should behave?

The parallel ill-formedness of (25)b, (29)b is expected, as in both cases a referential indexation is disallowed by (9), and the antecedent government connection is blocked by the intervening indirect question.

Moreover, negation is impossible in the path from the Wh element and its variable in the focus position of a cleft, no matter whether it is on the main verb or on the copula, while negation

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is possible in the path of the lower chain, between the variable and the empty operator:

(30)   Chi (*non) hai detto che (*non) è t' Op che (non) dobbiamo contattare t?

Who did you (not) say that it is (not) that we should (not) contact?

In (30) Op and t can carry a referential index under (9) (the chain bears an argumental Th role, t is the argument at S-structure and Op is the argument at D-structure), therefore the connection is not affected by an intervening negation (FN 13, 14).

As is to be expected, Wh movement from the focussed position of clefts is not the only type of A' dependency giving rise to the observed locality effect. For instance, focal topicalization in Italian (Cinque 1990), generally unaffected by an intervening negation (see (31)b), can take place from the focal position of clefts (Smits 1989: 363), but not across a negation (see (32)b-d):

(31)a   GIANNI dovete aiutare ___
        Gianni you should help

   b   GIANNI non dovete aiutare ___
        Gianni you should not help

(32)a   E' Gianni che dovete aiutare
        It is Gianni that you should help

   b   GIANNI è ___ che dovete aiutare
        Gianni it is that you should help

   c   Non è Gianni che dovete aiutare
        It is not Gianni that you should help

   d * GIANNI non è ___ che dovete aiutare
        Gianni it is not that you should help

The same explanation holds as in the case of Wh movement.

6. Conclusion

We have argued that the appropriate divide between elements sensitive and insensitive to week islands is provided by Thematic Theory, and expressed this divide in strictly configurational terms. We have chosen to express this divide in terms of the licensing of referential indices: indexed elements can enter into binding connections which are immune from weak islands. A referential indexation is only legitimate on elements that are arguments on some level of representation. This immediately explains why no long distance binding relation is ever possible in A chains: A-traces never are arguments, hence no referential indexation is legitimate.

We have discovered two cases of A' chains which also cancel

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argument/adjunct asymmetries and uniformly require strict locality, and shown that their apparently hybrid properties are amenable to the same licensing principle. Partial Wh movement in German involves the construction of an A' chain headed by an expletive operator, which never is an argument, hence it is not allowed to carry a referential index; Wh extraction from the focussed position of clefts, under Chomsky's (1977) analysis of the cleft construction, involves the construction of an A' chain which no (argumental) Theta Role is assigned to. Binding being barred, the only possible connection in these cases is provided by government, which obeys RM; whence the systematic sensitivity to negative and other weak islands.

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Footnotes

1. See Rizzi (1990: 78-80) on the fact that quasi-arguments of idiomatic expressions behave like adjuncts in A' chains.

2. The statement in (6) is simplified with respect to the formalization in Rizzi(1990) in that the relativization of the blocking effect is stated directly in terms of types of positions, rather then through the notion of "typical potential governor" of a certain kind.
It has been proposed in the recent literature that the A/A' distinction may be relevant for head positions as well (Roberts 1991). We will not explore the consequences of this refinement here.

3. The RM system is improved in two important respects here: 1. systematic reference to the NegP for all the cases of negative islands eliminates the ad hoc case by case search for a crucial A' specifier, as Frampton (1991) points out; 2. the necessary presence of the NegP with a filled A' specifier is enforced on principled grounds by the Negative Criterion (Haegeman 1991a, Rizzi 1991).

4. Binding is defined in the familiar terms: c-command and sharing of referential index, with no further locality condition. It has been observed that the term "referential index" may be misleading in this context (e.g., Frampton (1991)); in fact, what is necessary for our purposes is to admit the existence of a quality of indices which permit non-local connections between elements (connections not subjected to RM), and that this quality of indices is licensed by configurational properties, having to do with Theta Theory; in the remainder we will keep the term referential index, but it should be stressed that nothing hinges on this particular terminological choice.

5. We may think that members of adjunct chains are not indexed at all, or that they carry weaker indices, not rooted into the thematic module, and which only survive under antecedent government. The first alternative obviously requires a definition of antecedent government which does not refer to coindexation.

6. On the mechanism allowing the same element to be an argument and a non-argument on different levels of representations, see Rizzi(1991), sec. 4.
"Only if" is used in (9) because other conditions having to do with the nature of the element enter into the licensing of a referential indexation. See Cinque (1990) for detailed discussion of such factors.
Binding connections in relatives involving a base-generated resumptive pronoun (e.g., Shlonsky 1991), in which the operator is not an argument on any level of rapresentation, can be established through the mechanism mentioned in fn. 10 for partial wh movement in Romani relatives (the resumptive pronoun receives the index through (9), the null operator via predication from the head of the relative). On the other hand, if there are genuine cases of base generated resumptive strategies with questions, not just trace spell-out (Georgopoulos 1991 and much other recent work), (9) should be revised to allow a binding connection in such cases, possibly along the following lines:

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(i) A referential index is legitimate on an element X only if:
  a. X is in a chain with a referential argument, and
  b. X is not lower than the referential argument.

(i) basically amounts to saying that a referential indexation for members of a chain is legitimate from the referential argument upwards, hence including base-generated operators, but not NP traces.
If we think of a chain as a sequence of positions connected through government or binding, there could arise a circularity here: chain is defined in part through binding, hence referential index, and the latter is licensed through (i), which crucially refers to chain. To avoid the circularity, we could assume that referential indices are freely assigned to positions; this would allow free construction of chain links connected via binding (for instance, also in (10), (11), etc). The legitimacy of the referential indexation would then be checked at LF under (i), which would rule out the improper cases.
I will not pursue this approach here.

7. The same result holds for A chains involving expletives:

  (i)   There is a man in the garden

  (ii) * There seems that it is likely t to be a man in the garden

If the expletive and the argument must form a chain already at S-structure (e.g. to ensure visibility of the argument), then (ii) is ruled out already on this level: as the expletive cannot carry an index under (9), the connection must the be established via government, and it fails in (ii).
Moreover, if at LF the argument replaces the expletive (Chomsky 1986), on this level of representation we obtain the following configurations (LF trace noted as t'):

  (iii) A man is t' in the garden

  (iv)   A man seems that it is likely t to be t' in the garden

A binding connection is disallowed in the LF chain under (9), as the NP trace cannot bear an index, and a government connection is possible in (iii) and excluded in (iv) under RM.

8. If the language does not possess an expletive operator (e.g., English) the contentive operator itself must be in the appropriate scope position. On the mechanism allowing Wh in situ, see Rizzi (1991), sec. 4.

9. If principle (9) must be revised along the lines of fn. 6, in order to keep the analysis of partial Wh movement we must follow Chomsky(1986) and assume that chains created by movement must be distinguished at S-structure from CHAINS, purely representational connections established without movement. So, the chain structure of (12)b contains the CHAIN (was, mit wem) which does not licence an indexation on was under (i) of fn. 6 because the CHAIN does not contain an argument. The rest of the analysis remains unchanged.

10. In Romani, the partial movement strategy is also available in relative clauses. Interestingly, McDaniel notices that in this

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case partial and full wh movement do not contrast, and manifest the same acceptability level across an intervening negation:

(i)a ? Ake   o chavo kas   na mislinav so o Demíri dikhĭ̆a t
         Here's the boy whom   I don't think that   Demiri saw

   b ? Ake   o chavo so   na mislinav kas o Demíri dikhĭ̆a t
         Here's the boy WHAT   I don't think whom   Demiri saw

This asymmetry between relatives and questions can be understood as follows. The crucial difference is that in relatives both the head and the tail of the A' chain can be independently anchored to referential Theta roles. More precisely, in a relative like (i)b, the contentive wh element kas and its trace are allowed to bear a referential index under (9). The expletive operator so is not allowed to carry a referential index as a primitive property; on the other hand the head of the relative has a referential index licensed under (9); we may assume that it can be transmitted from the head of the relative to the adjacent operator through predication; so, both the head and the tail of the A' chain end up bearing referential indices licensed by referential Theta roles, hence the binding connection is available, and the intervening negation is ininfluential. No such mechanism is available to assign an index to the head of the question chain in structures like (15)b, which therefore must resort to the antecedent government strategy, and manifests the expected sensitivity to the intervention of negation.

11. Therefore, in this account, the following is excluded by the principle of full interpretation, not by the Th Criterion:

(i) * It is John that Mary loves Bill

12. See also Higginbotham's (1987) approach, in which the focussed element of clefts is analyzed as a predicate.
The West Flemish example looks problematic at this point. The focussed NP precedes the negative marker nie in (20)a, so apparently it is scrambled out of the domain of negation, and still the further application of Wh movement in (20)b is impossible: how can negation still have a blocking effect in this case? Liliane Haegeman points out that the construction has the following three properties:
1. The focussed NP still is in the scope of negation in (20)a;
2. sentential adverbs which otherwise freely interpolate between a scrambled NP and negation don't naturally interpolate in this case:

(i) T is verzekerst Valère nie da me gezien een
      It is probably Valere not that we seen   have

(ii) ??? T is Valère verzekerst nie da me gezien een
            It is Valère probably   not that we seen have

3. if an NP is focussed, the only possible order for negative clefts is NP nie; if a PP is focussed, both orders nie PP and PP nie are possible:

(iii) T is (nie) in Antwerpen (nie) dan'k goan   weunen
        It is (not) in Antwerp (not) that-I live

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This suggests that the NP is not moved out of the NegP in (20)a, rather it is adjoined to <u>nie</u> (this explains the fact that it still is interpreted in <u>nie</u>'s scope, and that an adverb cannot interpolate); moreover, this movement is compulsory for the NP in order to allow it to get case (this explains the NP/PP asymmetry, see Haegeman (1991b) on scrambling and case assignment). As the focussed element is not extracted from the domain of negation, in spite of the linear order, it comes as no surprise that further wh movement will be sensitive to the negative island, as shown by (20)b.

13. Anthony Kroch (p.c.) points out that the acceptability of such examples as (17)d appears to improve if a modal is added:

(i) Who couldn't it be that they helped

But notice that there is another possible source for (i), with the Wh element extracted not from the focus of the cleft but directly from the object position of the CP selected by the modal+copula:

(ii) It couldn't be that they helped John/who

The hypothesis that (i) derives from (ii) is supported by the observation that the equivalent of (i) is ungrammatical if the element affected by Wh movement is the subject:

(iii)a * What couldn't it be that happened during the night?
     b * What couldn't it be ____ that happened during the night
     c * What couldn't it be that ____ happened during the night

(iii)a is excluded by our usual mechanism with representation (iii)b (as in "It couldn't be this accident that happend during the night"), and by the That-trace effect with representation (iii)c (as in "It couldn't be that this accident happened during the night").

14. Ken Safir (p.c.) points out that an operator can be connected to a resumptive pronoun in the focal position of a cleft across an intervening negation:

(iv) This is the guy who it isn't him that we should help

This raises the question of how a binding connection can be available here. We may think that pronouns, elements which are capable of freely picking a referent in the domain of discourse, can freely bear a referential index (which may be passed on to the operator through the appropriate extension of fn. 6 (and/or fn. 10). If this is correct, then the domain of (9) should be restricted to elements which do not have the intrinsic capacity of picking a referent (variables, traces, operators, expletives,...).

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