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Government: the long and short of it

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Jean-Roger Vergnaud’s open letter to Chomsky in April 1977 was an important, although often unappreciated, event in the emergence of the Government–Binding approach to syntactic theory. There he proposed that some of the filters of Chomsky & Lasnik (1977) could be eliminated or simplified with the notion of an abstract ‘Governed Case’. From this emerged the familiar Case Filter, whereby phonetic NPs and variables have Case, and the idea that Case is assigned under conditions of government, analogous to the way that thematic roles are assigned. Government thus became the unifying concept, underlying principles of Case, thematic roles and eventually much more. The guiding intuition was that government was an extremely local relationship, essentially sisterhood and typically the relation between a head and its complement. The notion was stretched plausibly to allow expect to govern and assign case to them in I expect them to arrive on time under an exceptional (but learnable) operation of S’ Deletion, but strict sisterhood remained the intuitive basis for government.

Meanwhile, as ideas about Government–Binding theories were emerging, for example, during the Pisa workshop of 1979, some ill-understood matters were tossed into a can called ‘RES(NIC)’, the residue of the earlier Nominative Island Condition, which had required that a nominative anaphor be locally bound:

(1) (a) *They said that each other left.
(b) *They_i were expected (that) e_i would leave.

Each other and e_i in (1), being anaphors, needed to be locally A-bound under the new Binding theory, which therefore accounted for the ungrammaticality of (1) without reference to a NIC. Under the new Binding theory, however, variables were exempt from the NIC: they were inherently A’-bound and the

[1] Thanks to Joseph Aoun, Peter Coopmans, Norbert Hornstein and Juan Uriagereka for commenting on an earlier version.

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Binding theory required them to be A-free. Hence, without the NIC, there was no explanation for the ungrammaticality of (2).

(2) (a) *Who, do you wonder [how $e_i$ solved the problem]  
(b) *Who, do you think [that $e_i$ solved the problem]

Since there was an explanation for (1), (2) was treated as a separate phenomenon, labelled RES(NIC) for some time. After all, the RES(NIC) appeared not to hold in some languages; in these languages sentences like those represented in (2) are grammatical, but sentences like (1) are ungrammatical. This suggested that the NIC had represented a spurious generalization and that there should be a distinct locality condition on variables. In Chomsky (1981) this was formulated as the Empty Category Principle (ECP), requiring traces of movement to be ‘properly governed’; proper government was a sub-species of government. So (2) violated the ECP in that the traces failed to be properly governed. The ECP must be one of the single most productive ideas in syntactic analysis; it has uncovered an enormous wealth of hitherto unknown distinctions in a wide range of languages relating to subject–object asymmetries, preposition stranding, verb–movement possibilities and much more. However, it entailed a less local notion of government than the original inspiration.

For example, if a deleted complementizer is subject to the ECP (Kayne, 1981; Stowell, 1981), one can distinguish (3a) and (3b) only if say may properly govern the empty complementizer $e$ in (3a).

(3) (a) Who, did you say [$e_i$ $e$ (Kim saw $e_i$)]?  
(b) *Who, did you say last week in Chicago [$e_i$ $e$ (Kim saw $e_i$)]?

More radically, one might follow Lasnik & Saito (1984), invoke a notion of ‘antecedent-government’ and say that the higher Comp containing who, in (3a, b) thereby (properly) governs the $e_i$ in the lower Comp. In that case one has a very different notion of government than that typified by the sisterhood of heads and complements, one has moved far from the intuition which guided much of Chomsky (1981) and one has allowed government to incorporate long-distance relationships.

In seeking a concept to unify government with bounding, Barriers (Chomsky, 1986) finally decimated the old intuition about government. Now an element $a$ could govern an element $b$ as long as no barrier intervened. As long as only L-marked maximal projections intervene, $a$ and $b$ can, in principle, be indefinitely far apart. Furthermore, an element might have more than one governor. So in a phrase *discuss stories about them*, each of

[2] The old intuition did not entirely disappear, because L-marking was defined in terms of theta-marking and sisterhood (and, later, through Spec–Head agreement within IP and CP). But government was no longer the vehicle for this intuition and could now be a relatively long-distance relation.
the heads *discuss, stories* and *about* L-marks its complement and therefore would govern *them*, not being separated by a barrier. In order to reduce ambiguity of government, Chomsky grafted a Minimality Condition on to the definition of government. Minimality reduced the long-distance relations and localized government, effectively blocking government across an intervening lexical head:

(4) In a configuration \( \ldots a \ldots d \)[\( \ldots b \ldots c \ldots \)], \( a \) does not govern \( c \) if \( d \) is a projection of \( b \) excluding \( a \).

Chomsky (1986: 43) notes that this condition 'seems natural on conceptual grounds: it means that the complement of a head cannot be governed by a more remote head'. This re-introduces the old core notion of government as a head–complement relation, whose importance is otherwise minimized in the *Barriers* approach.\(^3\) However, in order to allow (5) to be interpreted as a double question, Chomsky allows for Spec of an NP to be governed from outside the NP.

(5) Which men expected \( \text{NP}[ \text{which women's pictures} ] \) to be on sale?\(^4\)

He redefines Minimality 'narrowly' (where \( d \) in (4) is an IMMEDIATE projection of \( b \) (1986: 44)) such that the trace of *which women's* may be antecedent-governed at LF by *which men*, even though there is a closer governor (the head N of the NP). This seems to break the connection between Minimality and disambiguation of government.

As noted in Lightfoot & Weinberg (1988: n. 15), the Minimality Condition runs into trouble if one adopts either Chomsky's suggestion to reduce proper government entirely to antecedent-government (eliminating theta-government), or to apply both disjuncts of the ECP conjunctively. In several cases, antecedent-government is blocked by Minimality. For example, in (6) the N dominating *destruction or book* would block antecedent-government of the object trace.

(6) (a) \( \text{NP}[ \text{the city's_{i} N}[ \text{destruction e_{j}}] \]

(b) \( \text{CP}[ \text{About whom_{i} did IP[John VP[ei VP[write NP[a_{N}[book e_{i}]]]]]]} \)?

This is where Rizzi's central proposal becomes relevant. He proposes to *relativize* the Minimality Condition. He distinguishes government by a head and government by a co-indexed antecedent and blocks government if a typical potential governor of the same type intervenes (7). So an inter-

\(^3\) Given the unification sought, the Minimality Condition, grafted onto the definition of government but not movement, raises the question of why movement should be free to take place across more than one intervening head. As far as conceptual naturalness is concerned, it seems that Chomsky's unification should have led one to expect parallelism in this respect. For further scepticism about the proposed unification and for discussion of an alternative, see Lightfoot & Weinberg (1988).

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vening head blocks government by a more remote head, but it does not block antecedent-government of any kind.

(7) X α-governs Y iff there is no Z such that
   (a) Z is a typical α-governor for Y,
   (b) Z c-commands Y and does not c-command X.

A ‘typical potential governor’ is a m-commanding head for head-government and (respectively) an A specifier, A’ specifier and a head for antecedent-government in an A, A’ and X0 chain. ‘One will notice here’, says Rizzi (7–8), ‘a certain similarity with the Theory of Binding, in particular with the Generalized Binding approach… the analogies with the theory of binding look more than superficial, and suggest the possibility of a partial unification of government and binding along these lines’, an important point to which we shall return.

Relativized Minimality blocks antecedent-government of ei in (8a), because the A’ specifier which problem intervenes between how and its trace, an A’-chain. However, (8b) is grammatical: three heads (V, I and C) and one A specifier (the subject NP) intervene between how and ei’ and between ei’ and ei, but they do not interfere with antecedent-government under the relativized Minimality Condition; in contrast, under the unrelativized (or ‘rigid’) Minimality Condition of Barriers the intervening heads would block each of the antecedent-government relations, unless special conditions are invoked.4

(8) (a) *Howi do you wonder [which problemi [PRO to solve ei ei]]?
   (b) Howi do you think [ei’ that [Bill solved it ei]]?

So Relativized Minimality characterizes (8a) as involving an ill-formed A’-chain, and a SuperRaising construction like (9a) as involving an ill-formed A-chain: the intervening A specifier it blocks the government relation between John and its trace.

(9) (a) *Johni seems that it is likely [ei to win].
   (b) Johni does not seem [ei to be here].

Again, intervening heads (V and I in (9b)) and A’ specifiers (not in (9b)) have no relevant effect.

Similarly, Relativized Minimality captures the familiar head-movement constraint, blocking the movement of a head across an intervening head (cf. (10)), while intervening specifiers have no effect (for example, the subject NP in (10b) and the A’ specifier beaucoup in French, which does not block V-to-I movement (11)).

[4] For Chomsky the intervening V in (8b) is nullified if it does not project to V’ (V’ may be absent if there is no specifier). The intervening I is nullified because the I-system is inherently defective in that its projections never count as inherent or minimality barriers. The intervening C that is nullified if it is deleted in LF. No doubt the intervening C do could also be nullified.
(10) (a) They could have left.
    (b) Could they e have left?
    (c) *have they could e left?

(11) (a) Jean a [beaucoup dormi].
    (b) Jean dort, [beaucoup e].

These are the core cases which Rizzi uses to illustrate his principle. He also presents two intriguing paradigms which seem to motivate the relativization of the Minimality Condition on government. The first consists of the pseudo-opacity effects pointed out by Obenauer (1984), whereby a VP-initial adverbial quantifier (such as beaucoup in (11)) selectively blocks extraction of VP-internal elements. So direct objects may be extracted, but not specifiers of direct objects (cf. (12)) or VP adjuncts (cf. (13)), which Rizzi treats as parallel. In each case beaucoup acts as an A′ specifier and therefore blocks an antecedent-government relation between combien/comment and their respective traces.5

(12) (a) Combien de livres, a-t-il beaucoup consultés e?
    (b) *Combien, a-t-il beaucoup consulté [e, de livres]?
    (c) Combien, a-t-il consulté [e, de livres]?

(13) (a) Comment, a-t-il résolu [beaucoup de problèmes] e?
    (b) *Comment, a-t-il beaucoup résolu [e, de problèmes] e?

The second paradigm is based on the observation of Ross (1983) that negation blocks the extraction of adverbial elements:

(14) (a) Bill is here, which they (don’t) know.
    (b) Bill is here, as they (*don’t) know.

Rizzi treats negation as a ‘typical potential A′ binder’ (an A′ specifier, in fact the specifier of an independent projection of tense, T): if a non-theta-marked element is extracted from the domain of a negative, it will be unable to antecedent-govern its trace because of Relativized Minimality. Noting the contrast between (15a, b) (where for this reason may be construed in the upper or lower clause in (15a) but only in the upper clause in (15b)), Rizzi treats ‘affective operators’ as moved to the specifier of CP at LF (cf. (15c)); now no one is an A′ specifier which can be taken as a ‘typical potential antecedent-governor’, blocking any antecedent-government relation between for this reason and its trace. (If the specifier of CP is not available, as in the

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5 The trace in (12a) is properly head-governed by consultés. Rizzi treats (12c) as a genuine violation of the Left Branch Constraint but he does not say how the trace is properly head-governed in this instance.
LF of *What did no one buy?*, then the specifier of IP may optionally count as an A’ specifier at LF.6)

(15) (a) It’s for this reason that everybody believes that Bill was fired.
(b) It’s for this reason that no one believes that Bill was fired.
(c) *It’s for this reason that everybody believes [that Bill was fired e_i].*

Rizzi motivates the Relativized Minimality of his title along these lines in his first chapter. The central idea can be seen as a simplification of the Barriers approach to government. However, the book then takes a curious turn. The second chapter analyses that-trace effects, which Chomsky (1986) subsumed under his Minimality Condition. These effects raise problems for a relativized condition which excludes the possibility that an intervening C may block an antecedent-government relation (16).

(16) *Who, do you think c_P[e_i', c'[that 1_P[e_i, left]]?*

This leads Rizzi to adopt a conjunctive formulation of the ECP, as argued by Jaeggli (1985), Stowell (1985) and Aoun et al. (1987); see Contreras (1990) for discussion. Rizzi couches it such that a trace must be both properly head-governed and identified (through either antecedent-government or binding; see below), where ‘proper head-government’ means being head-governed within the immediate projection of the head. Thus, the lower trace in (16) fails to be head-governed by I because it is not within the immediate projection of I, namely I’. This re-introduces a strict locality condition which all traces must meet, very much along the lines of the earliest, short-distance notions of government. Furthermore, it evacuates a significant part of Rizzi’s Relativized Minimality Condition. Now traces must be properly head-governed within the immediate projection of the governing head. Therefore, Relativized Minimality becomes irrelevant to determining the locality of the head-governor and thus irrelevant to the first half of the ECP (that traces must be properly head-governed).

This chapter (section 2.3) offers some elegant arguments to the effect that traces must be locally head-governed (part of his conjunctive ECP). The arguments relate to conditions on Heavy NP Shift, extraction of measure phrases from within APs (*How_i is he [e_i tall]?*), the irrelevance of reconstruction effects (unlike for binding and antecedent-government), and I-to-C movement in English as compared to verb-second languages. Hornstein & Lightfoot (1988) argued that this condition must hold of the mapping from S-structure to PF and not of the mapping to LF. This idea

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[6] Rizzi sketches three alternatives: movement of no one to Spec of NegP at LF, recursion of CP and doubly filled Comp at LF. But all of these ideas, including making Spec of IP optionally an A’-position, raise problems. One makes the A/A’ distinction depend novelly on the element occupying the Spec of IP position. A recursive CP or doubly filled Comp allows a representation c_P[no one, what, did, ...]; but this would also allow an analogous representation for the ungrammatical *What did who buy?*
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would simplify Rizzi's analyses, particularly reconstruction, which is generally taken to be a LF operation and thus automatically immune, for Hornstein & Lightfoot, to head-government restrictions. Rizzi is vague on where his proper head-government condition holds (presumably, because he is unsure whether to subsume superiority effects under his ECP).

The bulk of the chapter (51-71) is devoted to that-trace effects. Rizzi allows Comp, the head of CP, to contain a complementizer like that, Agr or nothing. Thus the structure of Who do you think left? is (17a), where the specifier of the CP, $e$, agrees with the head, Agr; therefore the lower trace is properly head-governed by Agr in the head of Comp and antecedent-governed by the specifier of Comp. In (17b) the head of Comp is 'inert for government' and the lower trace fails to be properly head-governed.7

(17) (a) Who do you think [$e$ Agr [$e$ left]]?
(b) Who do you think [$e$, that [$e$ left]]?

If the specifier of Comp is empty or if there is no Spec–Head agreement, Agr is not licensed and therefore it cannot act as a proper head-governor. In varieties of English allowing that-trace violations, that can carry Agr; similarly for Modern Hebrew and some other languages. Rizzi then offers an intriguing catalogue of morphological agreement phenomena whereby a complementizer is modified in some way when a wh-element is moved into its Spec. He draws on Hebrew, Kinande, Irish, West Flemish, varieties of German and the familiar que-to-qui rule of French (but including a new correlation discussed by Godard, 1985). Here is another example of the ECP industry uncovering and drawing together a wealth of phenomena for future theories to respond to; this inventiveness has been a remarkable feature of work on the ECP from the beginning. These agreement phenomena, it must be said, work somewhat differently from language to language and more work will be needed to determine if they really manifest the same core operation. The fundamental idea (not a very natural one) is that of the various functional and lexical categories only Comp is not a head-governor (Rizzi argues that I may head-govern an empty VP, licensing VP topicalizations: I asked John to go home and [go home], he did $e$). Therefore wh-movement of a subject is in principle excluded, because its trace ordinarily would fail to be properly head-governed. As Rizzi puts it (60):

This formal constraint, inherent in the structural design of language, obviously clashes with a natural desideratum of effability: from this viewpoint, the optimal system presumably is one that maximizes the

[7] This analysis incorrectly predicts the grammaticality of *Who, did, it [[$e$, $e$ leave]], where the specifier who appears to agree with the head did. Rizzi adjusts for this by making a moved auxiliary fail to properly head-govern the subject trace in English (compare verb-second languages). Aoun et al. (1987) handle this very differently, in terms of a Comp indexing convention. Space limitations preclude a comparison here.

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possibility of questioning, relativizing, topicalizing, etc. from all the major argument positions. This tension is resolved by the adoption of language-specific formal devices (drawn from the repertory formally allowed by UG...) that allow particular systems to circumvent the general ban against subject traces.

In this way one can understand the surprising fact that the properties of and restrictions on object extraction are fairly constant across languages, while the possibilities of subject extraction vary considerably, often in bizarre ways. Alongside Spec–Head agreement rendering Comp a governor, Rizzi discusses two further strategies permitting extraction of subjects: use of a resumptive pronoun (Swedish and Vata) and extraction from a properly governed position adjoined to a VP and co-indexed with a pro subject (for null-subject languages).

Then in Chapter 3 Rizzi follows Aoun (1986) and Cinque (1984) and distinguishes referential and non-referential variables, where arguments are referential and quasi-arguments and most adjuncts are non-referential. Each variable must be ‘identified’ by being connected to its operator. Identification might take place via antecedent-government or, for referential elements, by binding, a relation not affected by island barriers or Minimality. This makes referential variables immune to the effects of the Minimality Condition on government. In which case the marginality of *Which problem, do you wonder [how [PRO to solve ei]]? is due to ‘a violation of Subjacency or other relatively weak principles and conditions’ (104).

Taken together, Chapters 2 and 3 erode the effects of the Relativized Minimality Condition proposed in Chapter 1. In the end it applies only to the identification of non-referential variables (effectively adjuncts), although Rizzi also invokes it as a condition on chain formation to capture the illformedness of SuperRaising (18a) and long-distance passives (18b).

(18) (a) *Bill, seems [that it is likely [ei to shave himself in public]]
(b) *Bill, seems [that it was told ei [that...]]

[8] For Rizzi binding relations cannot be subject to Minimality since otherwise the intervening A’ binder how would block a binding relation between which problem and its trace in the sentence below in the main text: *Which problem, do you wonder how to solve ei? It should also be noted that Rizzi’s distinction is entirely substantive, unlike the treatment of Aoun (1986), which is partially syntactic. I do not see how Rizzi would account for the non-ambiguity of Who bought everything?, which looks like a Minimality phenomenon (everything must have scope over who; compare the ambiguous What did everyone buy?): the traces of who and everything are both referential, hence not subject to antecedent-government and Minimality. The traces must be bound, but Rizzi’s binding theory incorporates no notion of Minimality, as just noted. Aoun’s more syntactic analysis, on the other hand, distinguishes subject and object wh-traces, where only subject traces have an accessible subject and must be locally bound. See Aoun & Li (1989) and Hornstein & Weinberg (1991) for discussion, particularly note 83 of Hornstein & Weinberg.
The traces are properly head-governed and (for Rizzi) can be bound by Bill. So he makes transmission of theta-roles depend on each link in a chain being governed by the next link; therefore, for the object theta-role to be assigned to Bill in (18b) no barrier and no minimal governor may intervene between Bill and its trace. In fact, the intervening it acts as a minimal governor and prevents the transmission of the theta-role; similarly, in (18a). However, there is an alternative account which voids the Minimality Condition on theta-role transmission: the sentences of (18) violate principle A of the Binding theory in that the traces fail to be bound in the first domain in which they have an accessible subject (the intermediate clause).

On page 105, in an appendix to Chapter 3, Rizzi suggests a further restriction: that 'an A' specifier filled by an operator blocks an antecedent-government relation in an A' chain only if the latter itself involves an operator-variable configuration', as in (19a) (contrasted with (19b), where the preposed PP does not represent an operator-variable configuration).

(19) (a) *Per quale ragione non immagini chi potrebbe essere licenziato?
   For what reason do you not imagine who could be fired?
(b) Per questa ragione, non immagino chi potrebbe essere licenziato.
   ‘For this reason, I don’t imagine who could be fired.’

This makes it crucial that adverbs like beaucoup in (12) and (13) and negatives (14) participate in operator-variable constructions; otherwise the clearest motivation for the relativized Minimality Condition from Chapter 1 will no longer fall under it. That beaucoup and negatives should be analysed as operator-variable constructions is not implausible (although (12b) may require some imaginative thinking). However, it is much less plausible that souvent ‘often’ and déjà ‘already’ should be analysed as operator-variable forms. None the less, they also seem to block movement of combien analogously ((20) and (21)) and therefore undermine one of the central arguments for a Relativized Minimality Condition. The phenomenon remains mysterious for every approach that I am aware of.

(20) (a) Com Bien de livres, a-t-il souvent consultés e_i?
(b) *Com Bien, a-t-il souvent consultés [e_i de livres]?

(21) (a) Com Bien de livres, a-t-il déjà consultés e_i?
(b) *Com Bien, a-t-il déjà consultés [e_i de livres]?

Most temporal and locational adverbs cannot occur in VP-initial position and therefore fail to test Rizzi’s analysis. Souvent and déjà are unusual in this regard. It is possible that these might be treated as quantifiers ranging over times, but en ce lieu ‘in this place’ can also occur in this position for some speakers, albeit with a distinctly archaic odour. The corresponding *Com Bien a-t-il en ce lieu consultés de livres? is not so much musty as positively ungrammatical – mysteriously so for Rizzi and for Obenauer.
Anybody familiar with Rizzi's work over the last fifteen years will know that there is a lot of good syntax in this book, imaginative, precise and thoroughly thought through. However, the fact remains that this is a curious book. The Relativized Minimality Condition motivated in Chapter 1 and making up the subject matter of the book (to judge from the title page) is emasculated by the end. Since all traces are subject to a strictly local condition of proper head-government (Chapter 2) and since referential variables may be identified through binding (Chapter 3), the revised Minimality Condition is effectively a condition on the identification (through antecedent-government) of adjuncts, an area of grammar which is less well understood than most and is not explored extensively by Rizzi. Furthermore, given the move in the appendix to Chapter 3 to limit the effects of the condition to operator-variable relations, the core motivation for the condition is weakened, as just noted.

A negative result can often be as enlightening as a positive result, and Rizzi's study makes an important contribution. Barriers sought to develop the intuition in Lasnik & Saito (1984) and earlier work on the ECP that government could include more long-distance relations than in the earliest work in the Government–Binding tradition, and it sought to analogize government with bounding by defining both notions in terms of the same primitive, a barrier. In so doing, it initiated a wide, new avenue of research, a Parisian boulevard, along which much traffic flowed. Rizzi addresses some technical problems in this work and introduced a simple and elegant modification to the Minimality Condition, blocking long-distance government relations in various cases. This entails a new treatment of that-trace effects, which can no longer be subsumed under the Minimality Condition and require a strictly local condition for all traces, which further evacuates the condition. Referential variables are then removed from the domain of the condition and made subject only to a binding requirement. So careful work on Minimality reduces its domain of relevance to adjuncts, and long-distance government relations are eliminated by different means. The effect is to reconstitute the old strictly local notion of government, now a condition that all traces must meet, and to sharply reduce the role of long-distance (that is, antecedent-) government. On internal grounds alone, this must raise the question of whether there is ANY role for long-distance government.

It was a very natural part of the Barriers enterprise to try to eliminate theta-government. Since the notion of a barrier was intended to unify government and movement, it would be quite odd if there were to be a sub-species of government, like theta-government, where the notion of a barrier played no role. Chomsky devoted section 11 of Barriers to eliminating theta-government, but he was not able fully to implement the elimination, and theta-government continued to play a residual piecemeal role. Hornstein & Lightfoot (1991) argue that theta-government (or head-government) in fact
plays an extensive role in the mapping from S-structure to PF and Rizzi's second chapter now reinforces that argument. Since his third chapter removes argument-trace relations from the antecedent-government requirement and subsumes them under the Binding theory, his book sharpens the question of whether antecedent-government plays any role, and it should focus attention on the possibility that Rizzi posed parenthetically on page 7 (see above): that government relations be unified with binding. If Rizzi is right, if traces must be properly head-governed, if argument traces are subject to the Binding theory, then antecedent-government plays a role only in identifying adjunct-traces.

Rizzi uses Aoun's distinction between referential and non-referential traces but does not discuss the analysis of Aoun et al. (1987), which subsumed both types under the Binding theory. Non-referential traces are subject to the Binding theory and must be A'-bound in their local binding domain (that is, the first NP or clause containing a distinct subject); they are generally locally bound. Referential wh-traces must also be A'-bound but as R-expressions they are also subject to principle C of the Binding theory and must be A-free; therefore a referential wh-trace in a non-subject position can have no accessible subject and therefore no localizing binding domain and can be bound long-distance. This predicts a similar range of locality restrictions to Rizzi's distinction (but see note 7) and it dispenses entirely with antecedent-government. As far as I can see, Rizzi has no reason not to adopt this analysis.

In that case, the theory no longer contains two distinct conditions which, at least in Chomsky (1981), were almost identical in form: the Binding theory requiring anaphors to be bound usually in the first clause or NP which contains them, and antecedent-government requiring traces to be bound within their clause. There is no antecedent or long-distance government and therefore no Minimality Condition on it. Instead, we come full circle, employing only a strictly local notion of head-government along the lines of Vergnaud's original insight; and it holds on the PF side of the grammar (I have not discussed the interesting claim of Raposo & Uriagereka, 1990, that case assignment may take place by a form of long-distance government). On the LF side, government, that is local, short-distance, head-government, plays little or no role, but a (generalized) binding theory (that is, one which treats wh-traces as anaphors, subject to principle A) is the only locality condition relevant for the phenomena in the ECP literature. In fact, we might generalize further and suggest that notions of compositionality (such as government) are characteristic of PF principles, and that LF principles, while operating on the hierarchical structures provided at S-structure, are characteristically stated in terms of indexing relations. The notion needs to be refined, of course, but that, as they say, is another story. In fact, the story of Aoun et al. (1987). What distinguishes this story from other conjunctive approaches to the ECP is (a) the use of binding instead of antecedent-
government at LF and (b) the fact that the head-government condition applies to traces on the PF side. The latter feature has opened a new line of enquiry concerning discrepancies between syntactic and LF movement.

The great virtue of Rizzi's book is that a talented syntactician has sought to amend the analysis of Barriers and has found that, within its own terms, the analysis has a greatly diminished role for long-distance government and must appeal to local head-government. This suggests that analogizing the ungrammaticality of *How do you wonder which problem to solve?, John seems that it is unlikely to win and the like to core government phenomena is to posit spurious generalizations. Instead, it looks as if they should be related to binding phenomena. There is no way of knowing in advance of investigation, of course, which generalizations will turn out to be spurious and what phenomena should be interrelated. One needs detailed, careful work like Rizzi's.

My conclusion, then, is that Rizzi's book and the slow emaciation of the Minimality Condition does not just amend the analyses of Barriers, as was his overt goal, but has much wider significance: it shows the need to carve up the grammatical world quite differently. This makes the book of great importance.

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