

## WEAK ISLANDS AND RELATIVIZED MINIMALITY

### 1. BACKGROUND. ECP EFFECTS, XP-BARRIERS AND MINIMALITY BARRIERS

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Recall two types of ECP effects:

(i) *Adjunct-Object asymmetries*

- (1) a. \*Why<sub>i</sub> did you wonder whether I bought the book t<sub>i</sub>  
 b. \*How<sub>i</sub> did you wonder whether I bought the book t<sub>i</sub>  
 c. \*Where<sub>i</sub> did you wonder whether I bought the book t<sub>i</sub>  
 d. \*When<sub>i</sub> did you wonder whether I bought the book t<sub>i</sub>
- vs. e. ??What<sub>i</sub> did you wonder whether I bought t<sub>i</sub>

(ii) *Subject-Object asymmetries*

- (2) a. \*Who do you think [that [ \_ saw John]?  
 b. Who do you think [that [John saw \_ ] ?
- (3) a. \*Who do you wonder [how/whether [ \_ bought the book]?  
 b. ??What did you wonder [how/whether [he bought t ]

ECP:

- (4) A non-pronominal empty category must be properly governed  
 (5)  $\alpha$  properly governs  $\beta$  iff  $\alpha$   $\theta$ -governs or antecedent-governs  $\beta$

-Barriers treatment of (1), (3) in terms of XP-barriers: adjunct and subject trace are not  $\theta$ -governed, hence must be antecedent governed. The embedded CP is a barrier by inheritance, blocking antecedent government of the adjunct and the subject trace. Hence, an ECP violation.

-Analysis of the that-trace effect in (2) in terms of the (Rigid) Minimality notion of barrier:

- (6)  $\dots\alpha\dots[\gamma\dots\gamma^0\dots\beta\dots]$

$\gamma'$  is a barrier even though it is not an XP because it dominates a head  $\gamma^0$  which is a closer governor of  $\beta$  than  $\alpha$ . This type of barrier (which reduces ambiguity of government) is relevant only for government (ECP).

C' is a minimality barrier for the intermediate trace, which cannot antecedent govern the subject trace resulting in an ECP violation:

- (7) a. \*Who do you think [t' [C'...that [t saw John]]?

The version without “that” is ok because a zero Comp does not have enough content to make C' into a barrier.

The minimality analysis also applies to the CNPC of the Noun-Complement type:

- (8) how did John announce [NP a plan [CP t<sup>2</sup> to [t<sup>1</sup> fix the car t]]]

Even if they are no barriers for movement N' is a minimality barrier for government of t<sup>2</sup>.

## 2. TWO MAIN MOTIVATIONS BEHIND RELATIVIZED MINIMALITY

### .....with respect to XP-barrierhood

(a) The analysis of adjunct / object asymmetries in terms of XP-barrierhood does not generalize to two other cases where similar effects are found. It is desirable to provide a uniform treatment for these cases.

*Obenauer's (1984) pseudo-opacity effects*

In French, the wh-quantifier *combien* (how much/ many) can optionally undergo left-branch extraction:

- (9) a. [Combien de livres]            a-t-il consultés        t  
       How many of the books        did he consult        t  
       b. Combien                    a-t-il consultés        [t de livres]  
       How many                    did he consult        of the books

Certain VP-adverbials like *beaucoup* block *combien*-extraction while they do not interfere with movement of the whole object:

- (10) a. [Combien de livres]            a-t-il beaucoup        consultés        t  
       How many of the books        did he a lot        consult        t  
       b. \*Combien                    a-t-il beaucoup        consultés        [t de livres]  
       How many                    did he a lot        consult        of books

## How can we make sure that *combien*-extraction is similar to adjunct extraction out of wh-islands?

Two considerations support the view that *combien*-extraction is subject to the same locality conditions as adjunct extraction:

-Extraction of *combien* across a wh-island gives rise to a strong (ECP) violation:

- (11) a. ?Combien de problèmes sais-tu [comment [PRO résoudre t t]]  
How many of problems know-you how solve  
'How many of the problems do you know how to solve'  
b. ?Combien sais-tu [comment [PRO résoudre [t de problèmes] t]]  
How many know-you how solve of problems  
'How many of the problems do you know how to solve'

-Extraction of a VP-adjunct across *beaucoup* is ungrammatical (ECP):

- (12) a. Comment a-t-il résolu [beaucoup de problèmes] t  
How has-he solved [many of problems]  
'How did he solve many of the problems?''  
b. \*Comment a-t-il beaucoup résolu [t de problèmes] t

*Combien* extraction across *beaucoup* cannot be dealt with in the Barriers system because VP is not a barrier (and there is no place for accommodating the effect caused by the VP-adverb).<sup>1</sup>

### *Ross's inner islands*

Negation blocks extraction of adjuncts but does not affect extraction of arguments:

- (13) a. Bill is here, which they (don't) know  
b. Bill is here, as they (\*don't) know
- (14) a. It is for this reason that I believe that John was fired  
*[ambiguous-reason adverbial modifies the main clause or the embedded clause]*  
b. It is for this reason that I don't believe that John was fired  
*[unambiguous: only the main clause is modified]*
- (15) a. How strongly do you believe that inflation will rebound  
*[ambiguous-degree adverbial modifies the main clause (strength of belief) or the embedded clause (strength of inflation's rebound)]*  
b. How strongly do you not believe that inflation will rebound  
*[only about strength of disbelief]*

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<sup>1</sup> Well, that is not quite true. If the presence of a specifier determines the presence of V' (see below) one could, perhaps, appeal to V' as a minimality barrier. But wh-islands and *beaucoup* intervention are very similar, and yet the accounts that can be given for them in the barriers framework very different.

- (16) a. What do you believe he weighed last week  
 [ambiguous: “potatoes” or “200 pounds”]  
 b. What do you not believe he weighed last week  
 [unambiguous: “potatoes”]

Inner islands are created by other operators as well (the ones licensing NPIs, i.e. ‘affective’ operators, Klima 1964):

- (17) a. It is by lethal injection that many people believe that John was executed  
 b. \*It is by lethal injection that few people believe that John was executed
- (18) a. Few people did anything  
 b. \*A few people did anything
- (19) a. Why do few people think that Bill was fired (*no long distance construal for why*)  
 b. Why do a few people think that Bill was fired (*ambiguous*)

A unified account between these cases and wh-islands is desirable.

Wh-islands, pseudo-opacity islands and inner islands are called **weak islands** (they weakly or not at all influence argument extraction while they block adjunct extraction).

**....with respect to Minimality-barrierhood:**

Rigid minimality barriers are problematic for various reasons:

(a) Minimality barriers are never created by  $V^0$  and  $I^0$ . In Barriers this is explained as follows: (i) it is stipulated that  $V'$  is not projected because the VP has no specifier. (ii) It is stipulated that I is intrinsically defective.

(b) Adjunct extraction is never blocked by an intervening head, unlike subject extraction:

- (20) How do you think [t' that [Bill solved it t ]]

In order to account for this, Chomsky 1986 stipulates that *that* is deleted at LF, the level where  $\gamma$ -marking takes place for adjuncts. Chomsky does not discuss cases where C is realized as an inflected auxiliary (e.g. *How did Mary solve the problem*), but these can be taken care of if it is assumed that I-to-C movement takes place at PF.

(c) A conceptual issue: There is an asymmetry in the definition of minimality barriers. There are two types of government: head government and antecedent government. The asymmetry lies in the fact that an intervening *potential head governor* blocks both head government and antecedent government, while an intervening *potential antecedent governor* does not block any type of government. Rizzi proposes to explore the

consequences of a symmetric approach to minimality, according to which *an intervening potential head governor blocks head government* and *an intervening potential antecedent governor blocks antecedent government*.

At an intuitive level, this immediately unifies wh-islands, pseudo-opacity islands and inner islands. In all cases, an intermediate *potential antecedent governor* (the wh-phrase, the VP-adverb *beaucoup* and negation) blocks the relationship between the (no-theta governed) antecedent (adjunct wh-phrase or *combien*) and its trace, resulting in an ECP violation.

### **3. LOCALITY AND RELATIVIZED MINIMALITY: GOALS AND DEFINITIONS**

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#### *Rizzi's Locality Theory*

Starting point: There are two fundamentally different types of movement. *Local movement*: NP movement, head movement, clitic movement, adjunct A' movement. *Non Local (long) movement*: A' movement of arguments subject to weaker locality.

Assumption: for the different types of local movement a uniform statement of locality conditions can be given.

Task of locality theory: (i) A principled theory of locality conditions on local movement. (ii) A principled account for long A' movement of arguments.

**Chapter 1.** Strict locality: antecedent government (XP-barriers + relativized minimality).<sup>2</sup>

**Chapter 2.** No rigid minimality. That-t effects are not locality effects. They result from the Proper Head Government Condition on traces.

**Chapter 3.** Long A' movement of arguments. Arguments carrying a referential theta-role have a referential index which permits them to enter a binding relationship (no strict locality which restricts the (antecedent) government relation between operators and variables).

Two main points of criticism (Frampton 1991):

- (a) Very little discussion of Subjacency and the conditions under which it obtains
- (b) No principled partition of positions into A and A' positions.

#### *Rizzi's Locality System*

a) He remains vague w.r.t. Subjacency.

b) ECP (initial version, p.4):

(21) A nonpronominal empty category must be

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<sup>2</sup> The view that strict locality results from antecedent government is in agreement with Barriers.

- (i) Theta governed or
- (ii) antecedent-governed

c) He assumes that there are two types of government defined as follows:

- (22) **Head Government:** X head-governs Y iff
- (i)  $X \in \{A, N, P, V, Agr, T\}$
  - (ii) X m-commands Y
  - (iii) no barrier intervenes
  - (iv) Relativized Minimality is respected
- (23) **Antecedent Government:** X antecedent-governs Y iff
- (i) X and Y are coindexed
  - (ii) X c-commands Y
  - (iii) no barrier intervenes
  - (iv) Relativized Minimality is respected

d) He is vague as to what definition of barrier he adopts. If the definition by Chomsky (1986), then there is some redundancy between barrierhood and RM. The notion of barrier he tentatively adopts (p. 6) is that XPs that are not directly selected by [+V] elements are inviolable barriers for government. This subsumes, the adjunct CED, the subject CED, the CNPC of the RC type, the CNPC of the complement type, i.e. the, so called, **strong islands** (even though the CNPC of the complement type looks rather like a weak island). In fn. 6 he mentions that RM does not apply even to weak islands, such as the complements of factive verbs (he adopts Kiparsky & Kiparsky's analysis according to which factive complements are dominated by a DP node):

(24) \*How do you regret that he solved the problem

e) Relativized Minimality

- (25) **Relativized Minimality**  
 X  $\alpha$ -governs Y only if there is no Z such that
- (i) Z is a typical potential  $\alpha$ -governor for Y
  - (ii) Z c-commands Y and does not c-command X

Intervener for head government:

(26) Z is a typical head governor for Y = Z is a head m-commanding Y

Interveners for antecedent government

Partition:	A-chains	(NP-movement)
	A'-chains	(wh-movement)
	X <sup>0</sup> -chain	(head-movement)

- (27) a. Z is a typical potential antecedent governor for Y, Y in an A-chain =  
 Z is an A specifier c-commanding Y  
 b. Z is a typical potential antecedent governor for Y, Y in an A'-chain =  
 Z is an A specifier c-commanding Y  
 c. Z is a typical potential antecedent governor for Y, Y in an X<sup>0</sup>-chain =  
 Z is a head c-commanding Y

The class of elements that block antecedent government depends upon the type of chain that is formed (A, A-bar, head).

'relativized: relative to the type of movement.

#### 4. HOW IT WORKS

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##### 4.1. A' Chains

###### *Wh-Islands*

- (28) \*How do you wonder [which problem [PRO to solve t t']]

Even if adjunction to IP is allowed, RM is violated:

- (29) How do you [t' [wonder [which problem [t' [PRO to [t''' [solve t t''']]]]]]]

t' cannot antecedent govern t'' because the A' specifier *which problem* intervenes.

Desirable consequence: the stipulation that there can be no adjunction to IP can be dispensed with.

###### *Absence of that-trace effects*

- (30) How do you think [t' that [Bill solved it t']]

No RM effect, i.e. no A' specifier blocking antecedent government of any of the traces in the chain.

Desirable consequence: no need to resort to Rigid Minimality and "that-deletion" at LF.

###### *Pseudo-opacity*

Recall:

- (10) a. [Combien de livres]                    a-t-il beaucoup consultés            t  
 How many of the books            did he a lot consult            t  
 b. \*Combien                    a-t-il beaucoup consultés            [t de livres]  
 How many                    did he a lot consult            of books

- (12) a. Comment a-t-il résolu [beaucoup de problèmes] t  
 How has-he solved [many of problems]  
 ‘How did he solve many of the problems?’  
 b. \*Comment a-t-il beaucoup résolu [t de problèmes] t

Analysis: *beaucoup* is an A’ specifier of VP blocking antecedent government of the trace of *combien* and *comment* by e.g. the intermediate trace adjoined to VP.

Compare (12) to (31):

- (31) Pourquoi a-t-il beaucoup résolu [t de problèmes] t  
 Why has-he many solved of the problems

This is grammatical because *pourquoi* is a VP-external adverb (unlike manner adverbs).

Improvement under *en* cliticization:

- (32) Combien en a-t-il beaucoup consultés  
 How many of them has he a lot consulted

Analysis: [combien en] moves to AgrO above *beaucoup* and then *combien*-extraction takes place. Evidence: *en*-cliticization triggers participle agreement:

- (33) a. Combien a-t-il conduit de voitures  
 How many did he drive of cars  
 b. Combien en a-t-il conduites  
 How many of them did he drive+Agr

### *Inner islands*

Recall the two subcases:

#### *Sentential negation:*

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

- (14) a. It is for this reason that I believe that John was fired  
*[ambiguous-reason adverbial modifies the main clause or the embedded clause]*  
 b. It is for this reason that I don’t believe that John was fired  
*[unambiguous: only the main clause is modified]*

#### *Affective operators:*

- (17) a. It is by lethal injection that many people believe that John was executed



- b. \*It is by lethal injection that few people believe that John was executed
- (34) a. It is for this reason that everyone believes that Bill was fired (both readings)
- b. It is for this reason that no one believes that Bill was fired (only high construal)

For sentential negation: *pas* and *not* are A' specifiers (of T or Neg) blocking antecedent government of adjunct traces.

For affective operators: Affective operators undergo overt (with I-to-C movement) or covert movement to Spec,CP (non.affective ones undergo adjunction to IP), hence they occupy an A' position and they block antecedent government (when the spec,CP position is filled and the affective operator is a subject as in *What did no one say*, Spec,IP counts as an A' position (LF movement of the subject to C could not take place because it would create a Superiority violation as in *What did who say*).

#### 4.2. A-Chains

Super-raising:

- (35) \*John seems that it is likely [t to win]

**RM:** “it” blocks Antecedent Government between “John” and its trace.

Necessary ingredient: arguments in A-movement constructions must be antecedent governed.

In Barriers Chomsky says that for raising on the basis of the assumption that subjects are not theta-governed. However, the need for Antecedent Government also holds for passives:

- (36) a. It seems that Bill was told that...
- b. \*Bill seems that it was told that...

Rizzi (1990: 93): the superraising cases fall under the Theta Criterion:

- (37) (i) Each Theta position belongs to a chain containing exactly one argument  
(ii) Each argument belongs to a chain containing exactly one Theta position

*“...if the Theta Criterion is defined in terms of chain, and chain is defined in terms of antecedent government [..], then in (36b) (Rizzi’s (41c)) the object theta role cannot be assigned to the appropriate formal object (a chain containing the argument Bill...)...”*

Rizzi (2001) discusses further these cases. He points out that one could link the super-raising cases to the impossibility of extracting out of a tensed clause:

(38) \*John seems that t will win

(35) and (36b) would then not fall under RM. He points out, though, that there are languages (dialects of Turkish, Moore 2003) that permit raising across a tensed clause but not when a subject is present in support of RM.

SSC effects with clitics in causatives? In causative constructions, a dative clitic cannot appear in the main clause in the presence of a subject in the embedded clause:

- (39) a. Jean a laissé Pierre parler a Marie (French)  
John has let Peter speak to Mary  
'John has let Peter speak to Mary'
- b. Jean l' a laissé parler a Marie  
John him has let speak to Mary  
'John has let him speak to Mary'
- c. \*Jean lui a laissé Pierre parler  
Jean to her has let Peter speak  
'Jean has let Peter to speak to her'

### 4.3. Head Chains

Main facts falling under the Head Movement Constraint (Travis 1984):

- (40) a. They could have left  
b. Could they have left?  
c. \*Have they could left?

In RM terms: in (40c) “have” does not antecedent govern its trace because “could” intervenes.

### 4.4. Head Government

Captures the fact that ECM cannot take place across a C:

- (41) a. \*John tried [CP C [IP Bill to win]]  
b. \*John wonders [how C [IP Bill to win]]

Desirable consequence: the inheritance clause of Barriers not needed (but note that Rigid Minimality would also work).

## 5. THAT-TRACE EFFECTS AND PROPER HEAD GOVERNMENT

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Core facts of the *that*-trace effect:

- (42) a. Who do you think [0 [t read the book]] ?

- b. \*Who do you think [that [t read the book]] ?
- c. \*Who did you pray [for [t to do it]]?

RM radically departs from previous approaches which take “that” / “for” to block the relationship between the subject trace and the intermediate trace. For RM there is no locality violation in (43):

(43) [CP t' that [IP t....

Rizzi proposes that the “that-t” effect follows from the Proper Head Government Condition:

(44) A non-pronominal empty element must be properly head governed

What does ‘proper’ mean?

**Not ‘lexical’.** Infl is a proper governor (the VP-topicalization cases discussed also by Chomsky):

(45) and go home I wonder whether he did

**To capture the complement /specifier asymmetry** (Infl governs VP but not the subject) Rizzi proposes that proper government is ‘government within the immediate projection of a head’, i.e. within X’. (He also considers a linear definition but dismisses it for several reasons.)

He incorporates the PHGC into ECP, a conjunctive definition:

(46) ECP: a non-pronominal empty category must be  
 (i) properly head governed (Formal Licensing)  
 (ii) theta-governed or antecedent governed (Identification)

Evidence for the Proper Head Government Requirement:

**-Heavy NP Shift:**

\*[ t are intelligent] all the students who can solve the problem

This should be ok because it is antecedent governed. But it is not because it violates the PHGR.

vs. I would like to introduce t to Mary all the students who can solve this problem

**-Extraction of Measure Phrase from AP**

\*How is he [t tall]?

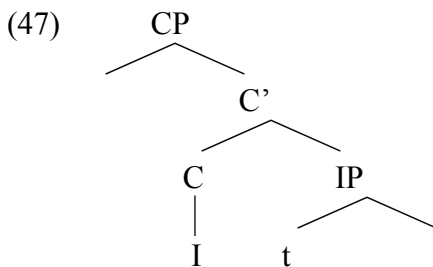
This can be derived from the PHGR if the adjective does not properly head govern the trace. In languages where this is good (e.g. Italian), the measure phrase can be to the right of A as an adjunct to AP (the adjoined phrase can be properly head governed by a higher head, e.g. T).

*How the facts are derived:*

1. That-t effect: t is not properly head governed. Infl does not govern the subject trace within its immediate projection and “that” is inert for government.

2. \*Who did t see Mary?

t is not properly head governed by I in C because in (47) I does not govern t within its immediate projection (its immediate projection is C') and C is inert for government:



3. V-2 languages:

(48) Wer hat sie gesagt [CP t' ist [t gekommen ]?  
Who has she said is come  
'Who did she say came?'

In V-2 languages C carries morphosyntactic features which attract V and make C an appropriate proper head governor.

that-t effect obtains in at least some German dialects:

(49) a. ? Was glaubt Hans dass Fritz gestohlen hat?  
What believes Hans that Fritz stolen has  
'What does Hans believe that Fritz stole?'  
b. \*Wer glaubt Hans dass das Auto gestohlen hat?  
Who believes Hans that the car stolen has  
'\*Who does Hans believe that stole the car'

4. Adjuncts

- (50) a. \*Who do you think that t came?  
 b. \*Who did t come?

vs.

- (51) a. How do you think that he came t?  
 b. How did he come?  
 c. Why did John leave?

The adjunct trace is properly head governed by V or T. Sentential adverbs like *why* can be directly base generated in Comp and hence they leave no trace (evidence: they can't be left *in situ*, they do not trigger stylistic inversion).

If adjuncts are adjoined to VP, they can be properly head governed by T across the one VP segment. If they are dominated by VP, as adjunct Aps predicated of the object, they are not extractable (T cannot govern across the VP, see page 50):

- (52) a. \*How angry did you meet Bill?  
 b. \*How raw did he eat the meat?

## 5. Agreement in Comp

- (53) a. Who do you think [0 [t left]]?  
 b. Who [0 [t left]]?

When a zero Comp is in spec,head Agreement with a wh-operator or a trace, spec-head agreement makes Comp into an appropriate head governor. C in English is either 'that' or Agr. Agr must be licensed via coindexation with a specifier.

The Agr/spec-head agreement in Comp analysis is supported by phenomena of agreement in Comp:

- (a) In Kinande, agreement in class.  
 (b) *aL* in Irish  
 (c) *qui* = *que* + Agr in French (when a trace is in C).  
 (d) *da* becomes *die* in West Flemish

A case of an agreeing +wh C. Norwegian *som* present only when the local subject moves:

- (54) a. Vi wet [hvem \*(som) [t snakker med Marit ]]  
 We know who that talks with Mary  
 b. Vi wet [hvem (\*som) [Marit snakker med t]]  
 We know who that Mary talks with

## 6. Strategies of subject extraction:

- (i) Agreement in Comp turns C into a governor

- (ii) The trace is spelled out as a resumptive pronoun (in Swedish)
- (iii) Extraction takes place from postverbal position (the postverbal subject is taken to be in a VP-adjoined position properly governed by INFL, just as adjuncts are).

## 7. Relative clauses

Relative clauses show the reverse that-t effect (anti that-t effect):

- (55) a. The thing that happened is terrible  
 b. \*The thing happened is terrible

vs.

- (56) a. What do you believe that happened  
 b. What do you believe happened

In languages like French, subject relative clauses use the same form of complementizer as subject questions:

- (57) La chose qui t est arrivee est terrible  
 The thing that has happened is terrible  
 (58) Que crois-tu qui est arrive?  
 What do you think that has happened

For English, the idea is to propose that the agreeing form of Comp is null in declaratives and ‘that’ in relatives. Support: there are languages that use a special complementizer in relatives distinct from declaratives (e.g. **wo** in Swiss German).

He proposes that there are two features characterizing Comp: +/-wh, +/-pred(idactive)

- +wh –pred: I wonder what  $\emptyset$  you saw  
 +wh +pred: The thing which  $\emptyset$  you saw  
 -wh +pred: The thing Op that you saw  
 -wh –pred: I know that you saw it

- (59) \*The thing [Op Agr [t happened]] is terrible

This is ruled out either (i) because a null operator cannot enter agreement due to the fact that it is an anaphor and anaphors are incompatible with agreement or (ii) because null operators must delete at LF and therefore they are not allowed to have syntactic features and license an agreeing element.

No problem when the operator is overt (either because overt operators are anaphoric or because they have features that license agreement):

- (60) The thing [which  $\emptyset$  [t happened ]] is terrible

Analysis of (61):

(61) The thing that happened is terrible

Standard analysis: operator transmits its index to ‘that’ turning it to an appropriate governor for the subject trace.

For Rizzi: ‘that’ must be turned into a governor and it can’t agree with the Operator because of (59). Solution: ‘that’ is in agreement with the head of the relative. This is A agreement (agreement with an element in A position). It makes C an appropriate governor for the subject position.

## **6. REFERENTIAL INDICES AND THE ARGUMENT-ADJUNCT ASYMMETRY**

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**System so far:**

**ECP** : A nonpronominal empty category must be

- (i) properly head governed
- (ii) Theta-governed or antecedent governed

**Facts that can be accounted for**

- (62) a. \*Which student do you wonder [how [t could solve the problem t ]]  
b. ?Which problem do you wonder [how [PRO to solve t]]  
c. How do you wonder [which problem [PRO to solve t]]
- (63) a. \*Which student do you think [t that [t could solve the problem]]  
b. Which problem do you think [t that [Bill could solve t]]  
c. How do you think [t that [Bill could solve the problem]]

In Null Subject Languages the subject cases above are ok (correlating with free inversion).

Analysis:

(62a) violates clause (i) and clause (ii) of the ECP

(62b) conforms with both clauses of the ECP

(62c) violates clause (ii) of the ECP

(63a) violates clause (i) of the ECP

(63b,c) conform with both clauses of the ECP

**Problems**

*Conceptual*

Redundancy: both clauses of the ECP refer to a kind of head government

Disjunction: disjunctive formulation of the second clause is a problem: we are grouping together things without understanding why.

### *Empirical*

#### Measure phrases

-There are lexically selected adverbials which should satisfy the theta-government clause of the ECP, which are ruled out when extracted out of wh-islands:

- (64) a. John weighed apples  
b. John weighed 200lbs

(65) ?What did John wonder how to weigh?

Only the first reading survives.

#### Idioms

-Same with nominal parts of idioms:

- (66) a. What headway do you think you can make on this project  
b. \*What headway do you wonder how to make on this project

#### -Long distance subject extraction

-Is predicted to be as bad as adjunct extraction but it is not:

- (67) a. ?\*Who do you wonder whether we believe [t' [ t can help us]?  
b. ??Who do you wonder whether we believe [ t' [we can help t]  
c. \*How do you wonder whether we believe [ t' [ we can help Bill t]?

(65a) is not as good as (65b) but considerably better than (65c). The problem is that if we assume that intermediate traces are present only when necessary, then (67a) should be as bad as (67c). In both cases the t' trace is needed to license the t trace and in both cases the t' trace is not antecedent governed.

### **Rizzi's solution**

To eliminate the second clause of the ECP.

1. (68) **ECP (final version)** : A nonpronominal empty category must be properly head governed
2. Referential theta roles license referential indices



3. Arguments with referential theta-roles may enter binding (long-distance):

- (69) X binds Y iff
- (i) X c-commands Y
  - (ii) X and Y have the same referential index

If no referential index is available operators must be connected to the variable via government. Government is local. Operators are connected to variables through a Chain.

In

- (67)
- a. ?\*Who do you wonder whether we believe [t' [ t can help us]?
  - b. ??Who do you wonder whether we believe [ t' [we can help t]
  - c. \*How do you wonder whether we believe [ t' [ we can help Bill t]?

subject extraction is better than adjunct extraction because the operator can be connected to the subject trace t (the t' is needed to satisfy ECP, the PHGC) via binding. The reason why subject extraction is worse than object extraction is that there is an intermediate trace, and intermediate traces lead to deviance.

### **An interpretive asymmetry**

When an operator is connected to the variable via the chain scope reconstruction is possible:

- (52)
- a. Tell me what everyone gave t to Bill on his birthday      Ambiguous:  
all gave the same thing, or  
there a potentially different  
thing
  - b. Tell me what you think that everyone should give to Bill  
(still ambiguous, the ambiguity results from  
reconstruction because "Tell me who thinks that  
everyone left" cannot have scope of everyone over  
what, i.e. there is no LF raising to the higher Comp)
  - c. Tell me what you don't think that everyone should give to Bill  
(unambiguous)
  - d. Tell me what you wonder why everyone gave to Bill (unambiguous).

## **7. SOME ISSUES RAISED BY FRAMPTON (1991)**

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### **1. *Eliminating Antecedent Government, the Minimal Link Condition and Subjacency.***

Relativized Minimality can be seen as a constraint on movement rather than antecedent government. According to this interpretation, Move  $\alpha$  is local if the movement does not

skip any potential landing sites. This will permit elimination of the notion of antecedent government (it is not clear why it antecedent government and head government constitute a natural class / the disjunction behind the ECP is unsatisfactory).<sup>3</sup> Subjacency is still needed. Hence: *...an instance of Move  $\alpha$  is local if it satisfies Subjacency and does not skip over intermediate landing sites...*” (Frampton 1991: 5).

**2. No principled explanation for the A vs. A' position distribution of positions.**

Long discussion of the pseudo-opacity facts.

Evidence that indeed “beaucoup” must be in spec,VP. Nothing can intervene between “beaucoup” and the verb. Even manner adverbs must be to the left of the QP-adverb:

- ( ) a. Il a soigneusement beaucoup replié de feuilles  
He has carefully many folded of paper-sheets  
'He has carefully folded many sheets of paper'  
b. \*Il a beaucoup soigneusement replié de feuilles  
He has many carefully folded of paper-sheets

Two QP adverbs cannot cooccur:

- ( ) \*Il a beaucoup beaucoup aimé de femmes  
He has many much loved of women  
'He has loved many women a lot'

The order of VP peripheral elements are Floated Q>Manner Adverbs >QP-adverbs (compatible with Koopman & Sportiche's version of the VP-internal subject hypothesis).

Why would the spec,VP position qualify as an A' position? Potential answer: it is the QP-adverb that makes it an A' position. It is the nature of the intervening elements, not the position itself, which blocks chain formation.

**3. If movement respects RM, and if the object moves to AgrO, then how is the object moved across the subject and the subject moved across the raised object without violating RM?** [an issue extensively discussed in the Minimalist literature, especially the literature on Equidistance following Chomsky 1993, 1995].

**4. Rizzi's execution of inner islands** (negation is not a head but an XP in spec of TP, affective operators move to spec,CP at LF, spec,IP can be an A'position) *has many problems*.

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<sup>3</sup> Note that The Minimal Link Condition of later research is understood as a principle according to which movement cannot skip potential landing sites, as suggested by Frampton.

-Spec,IP an A' position as a Last Resort: No principled explanation for the A / A' partition. No Superiority expected by *what did who see* ('who' could be interpreted in Spec,IP).

-Sentential negation as an XP: But *not* blocks head movement operations (e.g. Infl lowering resulting in do-support ), unlike *never*.

Alternative: NegP is present when sentential negation and affective operators are present. An Op is hosted in spec, NegP inducing RM effects.