Freezing Effects

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Goals of the talk
1 - Discuss different cases of so-called “freezing (=island) effects”
2 - Reduce Rizzi’s sub-cases (i.e., Criterial Freezing) to Full Interpretation

1. Ways of ‘Clouding’ Chains

+ Chomsky’s (to appear) controversial analysis: edges are Probe-proof

- SPEC-v^ subcase

(1) a. *[CP Of which car_i C did [TP [the driver t_i]_j T [v^P t_j v^* cause a scandal] ] ]?
   b. [CP Of which car_i C was [TP [the driver t_i]_j T [vP v awarded t_j a prize] ] ]?
      [from Chomsky to appear]

- SPEC-C subcase

(2) a. ??[CP Who_i C do you wonder [CP [which picture of t_i]_j C Mary bought t_j ] ]?
   b. ??[CP Who_i C do you wonder [CP [which picture of t_i]_j C t_j is on sale] ]?
      [from Lasnik & Saito 1992:102]

(3) Chomsky’s (to appear)
Phase edges trigger a “freezing” effect

![Diagram of syntax tree showing ProbeP, Probe, v^P, DP, v^*, v*, and ellipses representing unspecified structures.](image-url)
Rizzi (2006) implements the intuition by assuming “Criteria” satisfaction has a freezing effect

(4) **Criterial Freezing (first version)**
A phrase meeting a criterion is frozen in place

[from Rizzi 2006:112]

Against ‘too-much’ A-bar checking (see Bošković 2005, Rizzi 2006, inter alii)

(5) a. *[CP Who t_i thinks [CP that, which problem_t_z Mary hates t_z ] ]?
b. *[CP Which book_t_i C does Bill wonder [CP t_i C she read t_i ] ]?

(6)

ProbeP

... 

ForceP

Force

FocP

Foc

Foc_t_i

FinP

... 

XP_t_i

XP_t_i

...

XP_t_i

Torrego’s (1985) data and Rizzi’s (2006) follow-up

(7) *[CP De qué autora_s no sabes [CP [qué traducciones t_j] S what translations of what author not know-2SG what translations . . . [TP t_j han ganado premios internacionales] ] ]? (Spanish)

‘Which author don’t you know what translated books by have won international awards?’

[from Torrego 1985:31]

(8) *[CP Di quale autore_t_z ti domandi [CP [quanti libri t_{j[z]} CL-you wonder-2SG how-many books of which author CL-you wonder-2SG how-many books . . . [TP siano stati censurati t_j] ] ]] (Italian)

‘Which author do you wonder how many books by have been censored?’

[from Rizzi 2006:114]

**Interim summary (1)**
In some cases, “Criterial Freezing” effects can be circumvented
Against ‘too-much’ A checking (see Lasnik & Boeckx 2006)

(9) *[CP C [TP John, T seems [TP t, T is ill ]]]  Hyper-raising

Illicit Chains

(10) a. A → A (Hyper-raising)
b. A → A-bar (Improper Movement / Chain Uniformity)
c. A-bar → A (Improper Movement / Chain Uniformity)
d. A-bar → A-bar (Criterial Freezing)

Previous unifying accounts

Movement [for checking purposes] must be not too local (within the same relevant domain, be it a phrase or a phase)

(12) Principle of Unambiguous Chain
Chains must be defined unambiguously

(13) Anti-Overcrowding Law
Chains/Phrases do not tolerate extra/duplicated members

2. Sub-Extraction or Aboutness Base-Generation

(14) [CP De qué autora, C no sabes [CP [qué traducciones t,] j C . . .
of what author not know-2sg what translations
. . . [TP t j han ganado premios internacionales] ]]? (Spanish)
‘Which author don’t you know what translated books by have won international awards?’

(15) Criterial Freezing (final version)
The Criterial Goal is frozen in place

(16) [CP WH, C . . . [DP RP [ t, ]] . . .] (Boeckx 2003)
(17) **Two structural patterns**

a. [ [Verb DP] PP]      Aboutness
b. [ [Verb [DP PP]]]      non-Aboutness

(18) a. Juan sabe [CP que María fuma] non-Aboutness (Spanish)
    Juan know-3SG that María smoke-3SG
    ‘Juan knows that María smokes’

b. Juan sabe [PP de María] [CP que fuma] Aboutness (Spanish)
    Juan know-3SG of María that smoke-3SG
    ‘Juan knows about María that she smokes’

(19) a. Juan sabe [de María][CP[qué novelas de Cortázar]i ha leído t_{ij}] (Spanish)
    Juan know-3SG of María what novels by Cortázar have-3SG read
    ‘About María, Juan knows which novels by Cortázar she has read’

b. *[CP De qué escritor_i C sabe Juan [de María] . . .
    of what writer know-3SG Juan of María
    . . . [CP [qué novelas t_{ij}] C ha leído t_{ij}] ]? (Spanish)
    what novels have-3SG read
    ‘Which writer does Ana know about Luis which novels by he has read?’

(20) a. [CP [ De qué hijo suyo]i C sabes que...
    of what son his know-2SG that
    . . . ha leído [CP todo padre [qué novelas t_{ij}] ]? (Spanish)
    have-3SG read every father what novels
    ‘Which son of his do you know which novels by has every father read?’

b. (*)[CP [De qué hijo suyo]i C sabes [CP [qué novelas t_{ij}] C . . .
    of what son his know-2SG what novels
    . . . ha leído todo padre] ]? (Spanish)
    have-3SG read every father
    ‘Which son of his do you know which novels by has every father read?’

\[ A\text{-}bar \text{ minimality} / A\text{-}over-A \text{ effect} \]

(21) . . . X . . . [α . . . [γ . . . β . . . ]]

\[ \text{Two cases to consider} \]

\[ \text{(A) . . . X . . . , [α . . . [γ . . . β . . . ]+[TOPIC] ]+[TOPIC] , . . .} \]

\[ \text{(B) a. . . X . . . , [α . . . [γ . . . β . . . ]+[FOCUS] ]+[TOPIC] , . . .} \]

\[ \text{b. . . X . . . , [α . . . [γ . . . β . . . ]+[WH] ]+[TOPIC] , . . .} \]

\[ \text{c. . . X . . . , [α . . . [γ . . . β . . . ]+[RELATIVE] ]+[TOPIC] , . . .} \]

\[ \text{d. etc.} \]
- (B) Case

(22) a. *[CP De qué escritor, C te parece [CP C que, [las novelas ti], . . . of what writer CL-to-you seem-3sg that, the novels, . . . lo van a ti hacer millonario] ]? (Spanish)  
   ‘Which writer does it seem to you that the novels by are going to make him rich?’

b. *[CP De qué pintor, C te parece [CP C que, [los cuadros ti], . . . of what painter CL-to-you seem-3sg that, the paintings, . . . los detesto ti ] ]? (Spanish)  
   ‘Which painter does it seem to you that the paintings by I hate?’

[from Gallego 2007:358]

- (A) Case

(23) a. ??[CP De Javier Marías, C me parece [CP C que, [las novelas ti], . . . of Javier Marías, CL-me seem-3sg that the novels . . . las han sobrevalorado ti ] ] (Spanish)  
   ‘Javier Marías, it seems to me that, the novels by, people have overrated them’

b. *[CP De Scorsese, C me parece [CP C que, [muchas películas ti], . . . of Scorsese CL-me seem-3sg that, many movies, . . . aún no he visto ti ] ] (Spanish)  
   ‘Scorsese, it seems to me that, many movies (by him), I have not seen (any) yet’

(24) a. Ana, a María, el secreto, se lo dijo. (Spanish)  
   ‘Ana, to María, the secret, she already told’

b. A María, Ana, el secreto, se lo dijo. (Spanish)  
   ‘To María, Ana, the secret, she already told’

c. El secreto, Ana, a María, se lo dijo. (Spanish)  
   ‘The secret, Ana, to María, she already told’

⊕ In situ sub-extraction


b. [CP Which actress, C did you buy [which pictures of ti ] ] ]?

Interim summary (2)

a. When the relevant verb is used, “Criterial Freezing” effects cannot be circumvented, regardless of the featural nature of the displaced constituents.

b. Leaving the would be island in situ does help circumvent “Criterial Freezing.”
3. “Criterial Freezing” under “Full Interpretation”

“Criterial Freezing” Redux

(26) The EPP position of a phase $Ph$ is assigned INTerpretation.  
[from Chomsky 2001:33]

(27) Principle of Unambiguous Chain  
Chains must be defined unambiguously  
[from Boeckx 2003:13]

(28) Principle of Full Interpretation  
Convergence condition requiring elements to have a uniform  
(appropriate) interpretation at the interfaces  
[from Chomsky 1986b; 1993]

Full Interpretation at PF and LF

(29) $[CP \ C [TP <John> T was [vP arrested <John>]] ]$  
(see Nunes 2004)

a. Which pictures of himself and herself did John and Mary think I saw?  
b. *Which pictures of himself and herself did John think Mary saw?

A formal or an interpretive effect?

(31) a. Mi domandavo $[CP quale RAGAZZA C avessero scelto t] \ldots$  
CL-me wonder-1SG which GIRL had-3PL chosen  
\ldots non quale ragazzo. (Italian)  
not which boy  
‘I wonder which GIRL they had chosen, not which boy’

b. *$[CP Quale RAGAZZA C mi domandavo ] \ldots$  
which GIRL CL-me wonder-1SG had-3PL chosen  
\ldots non quale ragazzo. (Italian)  
not which boy  
‘Which GIRL do I wonder had chosen, not which boy?’  
[from Rizzi 2006:113]

(32) *Me pregunto $[CP han elegido a qué CHICA] \ldots$  
CL-me wonder-1SG have-3PL chosen to what girl  
no a qué chico. (Spanish)  
not to what boy  
‘I wonder what GIRL they have chosen, not what boy’
4. Conclusions

- This presentation has argued that the data noted by Lasnik & Saito (1992), in fact first discussed by Esther Torrego, are ruled out due to interface constraints (ultimately related to Chomsky’s MST/PFI), not freezing effects of the A-bar type.

- The fact that minimalism (can) offer an interface (and not feature-checking) driven way to formulate what Rizzi calls Criterial Freezing is—we believe— a much welcome result. This is so because it reinforces the minimalist thesis that descriptive technology associated to the so-called “first factor” (UG) can be recast in “third-factor” terms.

REFERENCES


