

Rizzi (1997)

9th Session

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Goals: read a foundational paper about the so-called *cartography of the left periphery*, get an idea of how CP looks like in this approach, understand the challenges that this project involves, learn how apparent puzzles are approached in generative grammar, and become familiar with the syntactic properties of Topic and Focus.

1 Paper

1.1 Reference

Rizzi, Luigi (1997) The Fine Structure of the Left Periphery. L. Haegeman (ed.) *Elements of Grammar*, Dordrecht: Kluwer. 281–337.

1.2 Guidelines

- Why do we need to divide the CP in so many projections?
- What does it mean that Top and Foc are sandwiched between Force and Fin?
- Why can we have multiple Tops but not multiple Focs?
- In what relevant ways are Italian, English and French different?
- How do we make compatible the need of adjacency and the fact that in certain cases the lack of adjacency makes the sentence grammatical?

- What problem/puzzle does Rizzi try to solve?
- What is the relevant set of data?
- What are Rizzi's claims and arguments?
- What remains as an open issue?

2 Introduction

2.1 Goals

“Explore some aspects of the fine structure of the left periphery.” That is, provide evidence and arguments in favor of a specific cartography of CP, and explain the cross-linguistic differences between English and Italian, and eventually French.

2.2 Claims

- The C domain can be split into a Force-Fin system, and even host a Top-Foc system in between when necessary.
- In the C-domain, movement is interpreted as a last resort operation driven by the need to satisfy Criteria.
- This X-bar approach accounts straightforwardly for adjacency and anti-adjacency phenomena, also from a cross-linguistic perspective.
- Adverb preposing does not involve free IP adjunction, but rather movement to (or base generation in) Spec,TopP.

2.3 Structure

- Identification of basic configurational structure: what are the relevant projections and in what order do they occur?
- Adjacency and anti-adjacency effects involving elements of the C system and subjects.

3 Warm-up

- **Syntactic movement as last resort**
Movement is a non economic operation, so it will only be possible when it is aimed to satisfy a certain condition. In a system where formal features need to be checked, movement is justified by the need to erase such features (e.g., Case) on the DPs. In a system that includes Criteria, movement is justified by the need to satisfy the Spec-Head relation within a specific projection. Crucially, we don't use here a system of feature elimination, because the features we are working with have an interpretive import (Case vs. Foc) and they need to survive at LF.
- **The Wh-Criterion:** a *wh*-operator and a head endowed with the *wh* feature (e.g., a C[+wh]) must be in a Spec-Head configuration at S-Structure.
- **Relativized Minimality (RM)**
 - (1) a. Take the following structure: [... X ... Y ... Z ...]
 - b. The relation between X and Z is licit iff there is no Y (of the relevant kind) such that Y is structurally closer to Z than X is.

If X c-commands Y, Y c-commands Z, and X and Y are of the same structural type, then an element within Z cannot move to X across Y, if Y is of the same type as X (i.e., head, A-Spec, A'-Spec, etc.).

- **Weak Crossover (WCO):** a binder (e.g., a *wh*-operator) crosses over a pronoun bearing the same index.

- (2)
- a. Who_i did his_i mother see t_i?
 - b. *His_i mother loves everyone_i
 - c. *Everyone_i his_i mother loves t_i.

(In Strong Crossover (SCO) cases, a violation of Principle C occurs, because the trace, being a variable, is c-commanded by a pronoun with which it is co-indexed:

- (3) *Who_i did he_i see t_i?)

- **Case Theory**

In GB, NPs move to functional layers to be assigned case by the head of the projection by establishing a Spec-Head relation. The Subject NP moves to Spec, AgrSP to be assigned Nominative Case, and the Object NP moves to Spec, AgrOP to be assigned Accusative. Every NP must have case if we want it to be *visible* at the Phonetic Form. In later evolutions of the framework, NPs are understood to be introduced at the derivation with all their formal markers. That is, they do not move to receive case, but to check the compatibility of their formal features with the proper head and thus eliminate any uninterpretable features.

- **Empty Category Principle (Chomsky 1981):** A trace must be properly governed

- (4) α properly governs β iff:
- a. α governs β and α is a lexical head (lexical government), or
 - b. α is co-indexed with β (antecedent government)

- (5) α antecedent-governs β iff
- a. α binds β
 - b. no more than one bounding node dominates β but not α .
 - c. there is no filled C governing β .

- (6) Movement of a *wh*-word from an adjunct position
- a. John criticized how Mary sings in the shower.
 - b. *Where_i did John criticize how Mary sings t_i?

- (7) Movement of an argument
- a. John hates how Mary sings Gingle Bells in the shower.
 - b. What song_i does John hate how Mary sings t_i in the shower?

4 First part: See the other handout

5 Second part: Adjacency vs. antiadjacency

Claims: (i) “whenever the case properties of the subject depend on an element of the complementizer system, no preposed phrase of any sort can intervene between this element and the subject.”; (ii) The X-bar approach straightforwardly accounts for both argument topicalization and adverb preposing.

5.1 Licensing of the subject

The case-assigning preposition *for* (English)

- (8) a. ... that John will leave tomorrow.
b. ... that, tomorrow, John will leave.
- (9) a. ... for John to leave tomorrow.
b. *... for, tomorrow, John to leave.
- (10) [for [tomorrow Top⁰ ... [John ...

A prepositional complementizer that does not assign case (West Flemish)

- (11) Mee (?gisteren) zie nie te kommen, ...
‘With yesterday she not to come, ...’

“... the prepositional complementizer is not involved in case assignment to the subject, so it can occur on a higher head of the C system, and it is consistent with the occurrence of a lower TopP.”

Auxiliary in C assigns nominative in the Aux-to-Comp Construction (Italian)

- (12) a. Essendo egli improvvisamente tornato a casa, ...
‘Having he suddenly come back home, ...’
b. *Essendo improvvisamente egli tornato a casa, ...
‘Having suddenly he come back home, ...’
- (13) ... poiché improvvisamente egli è tornato a casa.
‘... because suddenly he has come back home.’

5.2 Licensing of traces

Subject-Object asymmetries in CLLD in French

- (14) Embedded interrogatives
a. ?Je ne sais pas à qui, ton livre, je pourrais le donner *t*.
‘I don’t know to whom, your book, I could give it *t*.’
b. *?Je ne sais pas qui, ton livre, *t* pourrait l’acheter.
‘I don’t know who, your book, *t* could buy it.’
- (15) Relative clauses

- a. ?Un homme à qui, ton livre, je pourrais le donner *t*.
'A man to whom, your book, I could give it *t*.'
- b. *?Un homme qui, ton livre, *t* pourrait l'acheter.
'A man who, your book, *t* could buy it.'

Parallelism to the that-trace phenomenon

- (16) a. A qui crois-tu que Marie va parler *t*?
'To whom do you believe that Marie is going to speak *t*?'
- b. *Qui crois-tu que *t* va parler à Marie?
'Who do you believe that *t* is going to speak to Marie?'

Null subject languages lack that-trace effects

- (17) a. Un uomo a cui, il tuo libro, lo potremmo dare.
'A man to whom, your book, we could give it.'
- b. Un uomo che, il tuo libro, lo potrebbe comprare.
'A man who, your book, could buy it.'

Explanation in terms of ECP and RM

- o C^0 (or in our case Fin^0) is endowed with Agr features to ensure the well-formedness of *t*. Abstract agreement is provided by the *wh*-element in Spec,CP , so C^0 is turned into a governor via agreement.

- (18) Je ne sais pas [qui C^0 [*t* pourrait l'acheter]]
'I don't know who could buy it.'

- o With the intervention of Top, the trace *t* cannot be licensed by the Agr features in C^0/Fin^0 : RM disallows the licensing of *t*.

- (19) Je ne sais pas [qui C^0 [ton livre Top^0 ... [*t* pourrait ...]]]

- o If Fin^0 , lower than Top^0 , is endowed with Agr features, then *t* is licensed. But in this case, the subject must move through Spec,FinP to license the Agr features in Fin, and this trace (*t'*) could not be licensed.

- (20) Je ne sais pas [qui C^0 [ton livre Top^0 [*t'* $\text{Fin}+\text{Agr}$ [*t* pourrait ...]]]]

REMARK: if we followed an adjunction analysis, we should stipulate that adjunction is a barrier for government. This is straightforward in the X-bar analysis.

That-trace effects in English (and we are assuming that CLLD and Topicalization are similar in this respect)

- o Subject-Object asymmetries: objects are easier to extract than subjects

- (21) Adapted from Lasnik and Saito (1992)
- a. ??The man to whom [that book [I gave t t]]
 - b. *The man who [that book [t gave t to me]]
- (22)
- a. ?A man to whom [liberty [we should never grant t t]]
 - b. *A man who [liberty [t should never grant t to us]]

- o We assume that a null Operator sits in Spec,FinP in English Topicalizations, so the complete representation of (22-b) is (23).

(23) A man [who C⁰ [liberty Top⁰ [Op [t should never grant t to us]]]]

- o Possibilities that we rule out: (i) If Fin⁰ had Agr features, they would have to match with Op, but not t , so the trace would not be licensed. Plus, the assumption is that Agr have their governing capacity restricted to elements coindexed with them; (ii) If Agr features were specified in a higher head (e.g., Force), they would be too far away, and RM would prevent the satisfaction of the ECP.

REMARK: “Again, an analysis of Topicalization in English based on simple IP-adjunction would not offer an equally principled analysis of the asymmetries”.

Adverb preposing contrasts with argument topicalization

- o Adverb preposing does not affect subject extraction

- (24)
- a. *I wonder who, this book, would buy around Christmas.
 - b. I wonder who, around Christmas, would buy this book.

- o If we accepted an adjunction analysis, we could believe that adjunction is transparent to government relations.

(25) I wonder who C+Agr [around Christmas [t would buy this book]]

- o Question that arises: “... why adverb preposing involves a structure which triggers adjacency effects on case but is transparent for adjacency effects on traces.” (cf. (9)). The answer, in the next subsection.

REMARK: “... a generalized adjunction analysis is not selective enough” to account for this asymmetry.

5.3 Antiadjacency

Main idea: “[...] in some cases an otherwise ill formed occurrence of a subject trace is made possible by the presence and action of an intervening Top layer [...]”

In the examples below, an intervening adverb or PP makes the subject trace non-adjacent to *that*:

- (26) a. *An amendment which they say that t will be law next year.
b. An amendment which they say that, next year, t will be law.
- (27) a. *Which doctor did you tell me that t had had a heart attack during an operation?
b. Which doctor did you tell me that, during an operation, t had had a heart attack?

This effect is selective enough to distinguish between argument Topicalization ((28-b)) and adverb preposing ((26-b) and (27-b)):

- (28) a. *A man who I think that t knows this book very well. That-trace effect
b. *A man who I think that, this book, t knows t very well. Argument Topicalization

Crucially, the adverb must be higher than the subject trace. In the example below, we have an IP-internal adverb and the that-trace effect is not corrected.

- (29) *Who did she say that t hardly speaks to her?

General idea: the preposed adverb or PP licenses a head of the C system (in an indirect way) and this projection licenses the subject trace (so the ECP violation is alleviated).

- (30) ... that ... next year ... X^0 [t will be law

Questions that arise

- o What is X^0 ?
- o Why is its presence contingent on the preposed adverb?
- o Why does it license the subject trace?

Answers

- o We unify these cases with the ones that involve subject extraction: subject extraction is possible by an agreeing Fin specification.
- o The preposed adverb forces the split of an otherwise syncretic Force/Fin system (i.e., we only have the split between Force and Finiteness when this split is forced by the activation of the Top/Foc field).

Analysis (step by step)

- o In embedded finite declaratives in English, there is an alternation between *that/0* such that:

- (31) a. That = +Decl, +fin

b. $0 = +\text{Decl}, +\text{fin}, (+\text{Agr})$

- We assume that the Force-Fin system can occur as a single projection or as two split heads when the Top-Foc system is sandwiched in between. The only restriction is that Force-Fin must be adjacent to the lower IP and higher VP. We thus revise (31) in the following lines:

(32) a. That = +Decl, (+fin)
b. $0 = (+\text{Decl}), +\text{fin}, (+\text{Agr})$

(*that* expresses declarative force and may optionally express finiteness, and 0 expresses finiteness and may optionally express declarative force and agreement.)

(33) a. I think that next year John will win the prize.
b. ... [that [next year Top⁰ [0 [John will win the prize]]]]

- As expected, the two specifications do not alternate in the “splitting case” (they do in the syncretic case).

(34) I think *(that) next year, (*that) John will win the prize.

- If the subject is extracted, since 0 can be associated with Agr, *t* is properly governed ((35-a)), and *t'* (which sits in Spec, FinP to license the Agr specification) is properly governed because Fin⁰ undergoes head movement to Top⁰ ((35-b)).

(35) a. ... that [next year Top⁰ [*t'* Fin⁰+Agr [*t* will be law]]]
b. ... that [next year Fin⁰+Agr Top⁰ [*t'* Fin⁰+Agr [*t* will be law]]]

- Argument vs. adverb: an argument Top does not salvage *t*, because topicalization in English involves a null operator in Spec,FinP with which Fin should agree, in case it hosted Agr features.

(36) ... that [this book Top⁰ [Op Fin⁰ [*t* knows ...

6 Conclusions

- The CP consists of two major components, Force and Finiteness, which involve an X-bar structure. Also, there is a Top/Foc system that can be sandwiched in between and thus extend the left periphery allowing for additional landing sites.
- Movement is seen as a last resort insofar it is justified to satisfy Criteria related to the projections at the left periphery, which are endowed with features that have an interpretive import (and hence are not erased at LF).
- Adverb preposing and argument Topicalization do not involve free IP adjunction, but movement to Spec,TopP. In English (but not in Italian), Topicalization triggers the existence of a null Op in Spec,FinP, which accounts for the fact that adverb preposing (but not argument Topicalization) involves antiadjacency effects.

7 Calendar

14.10.08	21.10.08	28.10.08
04.11.08	11.11.08	18.11.08
25.11.08	02.12.08	09.12.08
16.12.08	13.01.09	20.01.09
27.01.09	03.02.09	10.02.09

References

Chomsky, N.: 1981, *Lectures on Government and Binding*, Foris, Dordrecht.

Lasnik, H. and Saito, M.: 1992, *Move Alpha*, MIT Press, Cambridge, MA.

Frohe Weihnachten!!!

...und bis nächstes Jahr ;-)