

Criterial Freezing, EPP and ECP

1. Criterial Freezing (Rizzi 2003)

- (1) Movement as last resort: movement takes place to satisfy some interface requirement (Reinhart 1995, Fox 1997, based on Chomsky 1986)
- (2) A' chains are a way to associate two kinds of interpretive properties to elements: s-selectional properties, and properties of scope-discourse (criterial) semantics (Chomsky 2001, 2004).
- (3) a. Which book did you read <which book>?
b. This book, I read <this book> yesterday
c. THIS BOOK I read <this book>, not that one
- (4) Criteria: X_P and X_P' must be in a Spec-head configuration, for $F = Q, R, Top, Foc, \dots$ (Rizzi 1991, 1997)
- (5) X_{Cn} \dots X_{sel} \dots
- (6) a. Bill wonders [which book C_Q [she read <which book>]]
b. * Which book C_Q does Bill wonder [<which book> C_Q [she read <which book>]] ?
- (7) Criterial Freezing: An X_P meeting a criterion is frozen in place
- (8) a. Pensavo che avessero scelto la RAGAZZA, non il ragazzo
b. La RAGAZZA pensavo che avessero scelto _____, non il ragazzo
c. The GIRL I thought they had chosen _____, not the boy
d. The GIRL I thought they had chosen _____, not the boy
- (9) a. Mi domandavo quale RAGAZZA avessero scelto, non quale ragazzo
b. I wondered which GIRL they had chosen, not which boy
c. * Quale RAGAZZA mi domandavo _____ avessero scelto, non quale ragazzo
d. Which GIRL I wondered _____ they had chosen, not which boy
- (10) Non era chiaro [[quanti libri di Piero] avessero censurato]
c ? Piero, [[quanti libri del quale] C_Q avessero censurato] non era chiaro _____
Piero, how many books by whom they had chosen, not clear, _____
Piero, how many books by whom it wasn't clear they had chosen, _____
b * Piero, [quanti libri del quale] non era chiaro [_____] C_Q avessero censurato] _____
Piero, by whom it wasn't clear how many books they had chosen, _____
c ? Piero, [quanti libri del quale] non era chiaro [_____] C_Q avessero censurato] _____
Piero, how many books by whom it wasn't clear they had chosen, _____
b * Piero, [quanti libri del quale] non era chiaro [_____] C_Q avessero censurato] _____
Piero, how many books by whom they had chosen, not clear, _____
c ? Piero, [[quanti libri di Piero] C_Q avessero censurato] che non era chiaro _____
b * E' [quanti libri di Piero] che non era chiaro [_____] C_Q avessero censurato]
c E' [quanti libri di Piero] C_Q avessero censurato] che non era chiaro _____
It is how many books by Piero had been censored that wasn't clear

2. A Criterial Approach to the EPP

- (13) EPP: Clauses must have subjects. (Chomsky 1981)
- (14) What justifies movement to subject position in compliance with (1)?
i. requirements of the Case-agreement system, hence the syntax-morphology interface;
ii. interpretive requirements, hence the syntax-CI interface (Subject Criterion)
- (15) A Gianni piacciono queste idee
'To Gianni please these ideas'
(16) a. Le idee che a Gianni piacciono di più sono queste
b. The ideas that to Gianni please most are these
c. The ideas that to Gianni Maria raccomanda sono queste
'The ideas that to Gianni Maria recommends are these'
- (17) An argument is selected and taken as the starting point in the description of the event, which is presented as "being about" that argument.
- (18) A: Che cosa è successo ?
B: Un camion ha tamponato l'autobus per Roma
C: A truck bumped into the bus for Rome
B: L'autobus per Roma è stato tamponato da un camion
C: The bus for Rome was bumped into by a truck
B: # L'autobus per Roma, un camion lo ha tamponato
C: The bus for Rome, a truck bumped into it'
- (19) ... poi _____ è ripartito (after (18)B: the truck. After (18)B': the bus)
... then _____ left' (Calabrese 1986)
- (20) a. Top: [+aboutness] [+D-linking]
b. Subj: [+aboutness] [+D-linking]
- (21) The Subject Criterion (EPP): A nominal head, Subj is an obligatory component of the high functional field. It attracts a nominal expression [+N], and determines the Subject-Predicate articulation (much as Topic-comment, Focus-presupposition, etc. are determined by dedicated functional heads).
- (22) [XP [Top YP]]
(23) [XP [Foc YP]]
(24) [XP [Subj YP]]
- (25) ... Subj ... Phi ... (Cardinaletti 2004, etc.)
- (26) Le ragazze le son venute
(NID, adapted from Brandi & Cordin 1989)
'The girls Sci have+3pl come'
- (27) Why expletives? Subj is at the junction of the CP and IP systems; it shares with the former the fact that the position is dedicated to a scope-discourse property; and with the latter the

obligatoriness of the position, much as the backbone of the IP structure. There is a tension between these two requirements (scope-discourse positions typically are specified only when required by discourse conditions or communicative intentions, whereas heads of the IP hierarchy are fundamentally obligatory (Cinque 1999)). Expletives can be seen as a way to resolve this tension: when discourse conditions and communicative intentions require a presentational structure (where the event is not presented as being "about" a particular argument), an expletive is used to formally satisfy the Criterion.

- (28) Was glaubst du welchen Maniel Jakob heute angezogen hat?
'What do you believe which coat Jakob put on today?' (McDaniel 1989)

3. Subject-Object Asymmetries: ECP Effects as Criterial Freezing

- (29) a * Who do you think [that [t Subj will come]]?
b Who do you think [that [Mary Subj will meet t]]?

- (30) ECP: t must be properly head-governed (Chomsky 1981, Rizzi 1990)

- (31) a * Who would you prefer [for [t to win]]?
b Who do you work for?
c * Who would you prefer [for [t Subj to win]]?

4. Null Subject Languages.

- (32) a Chi credi che verrà?
'Who do you think that will come?' (Rizzi 1982, 1990)

- b Credo che verrà Gianni!
'I think that will come Gianni'
c Chi credi [che [pro verrà t]]

- (33) Chao (1981) pointed out that BP has no free inversion (at least not as free as Italian, Spanish, etc.) and still it allows Wh extraction of the subject:

- (34) a BP * (João disse que) saíram eles
b Sp (Juan dijo que) salieron ellos
'J. said that left they'
(35) Quem o João disse que vai chegar tarde?
'Who J. said that is going to arrive late?'

- (36) Mennuzzi (2000) provides an argument based on Sportiche's (1988) analysis of Qfloat that subjects are wh moved from a lower position:

- (37) a Que rapazes o Paulo desconfia que tenham beijado todas a Maria?
'Which boys Paulo suspects that have kissed all Maria?'
b Que rapazes o Paulo desconfia que tenham todos beijado a Maria?
c *Que rapazes o Paulo desconfia que todos tenham beijado a Maria?

- (38) BP has null expletives, so it could be that the EPP position is filled by a null expletive and the thematic subject is extracted from a lower position. The impossibility of (34) has to do with the

availability of a lower focal position (Belletti 2001, 2004), an option partially independent from subject extraction (see also Nicolis 2005 for recent discussion).

- (39) a *pro* parece que o José passou por aqui
'seems that J. came by here'
b *pro* choveu a noite inteira
'rained all night'

5. Strategies of Subject Extraction (Rizzi & Shlonsky 2005): Fixed Subject Strategies
(40) menu we a vedo do *(c) na wa ?
'Who FOC you believe that he will come?' (Gungbe, E. Aboh)
Imbabura Quechua: see Cole & Hermon 1981 and Hermon 1984, from where the data is taken.
See also Richards 2001.

- (41) ima -ta -taj Maria-ka Juzi mikun-shka
-ta kri-n?
whatACC Q Maria TOP José eat-NOMINALIZER ACC believe-AGR
'What does Maria believe that José ate?'

- (42) ima -ta wawa mikun-chun -taj Maria muna-n?
whatACC child eat FIN Q Maria want -AGR
Lit. 'What does Maria want (that) the child eat?'
Lit. 'What the child eat] does Maria want'

- (43) a *pi -taj Maria-ka Chayamu-shka
-ta kri -n?
who Q Maria TOP Arrive-
NOMINALIZER
ACC believe AGR
'Who does Maria believe (that) has arrived?'

- b [pi chayamu-shka -ta -taj] Maria -n?
who arrive-NOMINALIZER ACC Q Maria believe AGR
'Who does Maria believe (that) has arrived?'
Lit. '[Who has arrived] does Maria believe?'

6. Other "Skipping" Strategies: que → qui.

- (44) a L'homme [Op que [tu as vu t]]
'The man that you have seen'
(French)
b L'homme [Op qui [t est venu]]
'The man that has come'

- (45) Rizzi (1990): qui = que+Agr

- (46) Taraldsen (2001): qui = que+Expl (-i akin to it)
(47) L'homme Rel Op qu' [-i Subj est t' venu t]

- (48) a * Il, la semaine prochaine, partira en Italie
'He, next week, will leave to Italy'

b L'homme qui, la semaine prochaine, partira en Italie
 'The man qui, next week, will leave to Italy'

(49) -i is [+N], [aP] in Fin

(50)a Subj [est venu Op]
 b qui_{+N} [Subj [est venu Op]]
 c L'homme [Op qui_{+N} [Subj est venu t]]

(51) Vi ved ikke hvem (*der_N) opfant ostehovelen (Danish, Taraldsen 1986, 1998)
 'We know not who der invented the cheese slicer'

(52) Der in Fin differs from normal expletive der in that
 1. It is not sensitive to verb class (i.e., is compatible with transitive verbs)
 2. It interferes with V-2.

(53) For [+F] a criterial feature, X_{+F} is in a Spec-head configuration with A_{+F}.

(54) For [+F] a criterial feature, X_{+F} is locally c-commanded by A_{+F}.

7. Local Subject Questions.

(55)a Who came?
 b Qui est venu?

(56) Brazilian Portuguese: Quem que vai chegar?
 'Who que came?'

(57) Québec French a Qui que tu as vu?
 b Qui qui est venu ?

(58)a Qui est-ce que tu as vu ?
 b Qui est-ce qui est venu?

(59)a Subj [... [Wh_{subj} ...]]
 b Fin [Subj [... [Wh_{subj} ...]]]
 c Fin_{+N} [Subj [... [Wh_{subj} ...]]]
 d Who Foc [t' Fin_{+N} [Subj ... [t left]]]

(60)a What *all* did he say (that) he wanted? (West Ulster English: McCloskey 2000)
 b What did he say *all* (that) he wanted?
 c What did he say (that) he wanted *all*?

(61) Who was throwing stones *all* around Butchers' Gate?
 (62) * They were throwing stones *all* around Butchers' Gate
 (63)a * The students left all
 b * The students have been contacted all (by the advisor)

(64) In subject chains, floated Q's can't be stranded in first-merge (thematic) position.

8. Extraction in English

(65)a Who do you think will come?

b Qui crois-tu qui viendra?

c * Who do you think that will come ?

d * Qui crois-tu que viendra?

(65')a Who do you think will come ?

b % Qui crois-tu qui viendra?

c % Who do you think that will come ? (Sobin 1989, 2002)

d * Qui crois-tu que viendra?

(66)a the man that will come

b l'homme qui viendra

(67) Normally, *that, que* etc. express both declarative force and finiteness: they are merged into Fin and move to Force. Such elements, as heads of a clausal argument, are incompatible with the expletive function; so (69) is incompatible with subject extraction. Therefore, subject movement is only possible at the price of complicating the C-structure, with Force and Fin (capable of functioning as an expletive) merged independently, as in (70). This device is always available in questions and relatives (presumably for functional reasons: it must be possible to form a question or relative on the local subject), but its extension to embedded declaratives is dialect-specific.

(68) Force Fin IP

(69)a Force Fin IP que t_{que}
 b Force Fin IP that that

(70)a Force Fin IP que -i
 b Force Fin IP that [+N]

(71) She thought (*that) this book, you should read

(72) She thought (*that) never in her life would she accept this solution

(adapted from Grimshaw 1997)

(73) John seems [t to be happy]

(74) Who do you think [t' Fin_{+N} [Subj [will come t]]]

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