

- (5) a. John ate the cookie vs. John ate
b. John devoured the cookie vs. *John devoured
- (6) a. Bob gave a painting to the museum vs. Bob gave the museum a painting
b. Bob donated a painting to the museum vs. *Bob donated the museum a painting

III. Topic/prominence relations

- (7) a. John solved that problem
b. *John solved
- (8) a. That problem, John solved ... (but this one, he never could)
b. What did John solve?
- (9) a. What does Mary think John solved?
b. What did Kelly say that Mary thought that John solved?
- (10) The problem was solved by John.

IV. Scope relations

- (11) a. Someone visited everyone.
i. some person x, x visited everyone (one visitor)
ii. every person x, somebody visited x (many visitors)
- b. Someone said that Mary visited everyone.
i. some person x, x said that Mary visited everyone (one speaker)
ii. ?*every person x, somebody said that Mary visited x (many speakers)
- c. Someone visited the guy that interviewed everyone.
i. some person x, x visited the guy that interviewed everyone (one visitor)
ii. *every person x, somebody visited the guy that interviewed x (many visitors)
- (12) a. Subcategorization: the complement of a verb is the sister of the verb
b. Topicalization: place the 'topic' NP at the front of the sentence
c. Passivization: place in subject position the NP that would be the object in an active sentence; also change the form of the verb --> aux + participle
d. Wh-question formation: place the wh-phrase at the start of the sentence; also place an auxiliary verb between the wh-phrase and the subject
e. Scope-relations: place the quantifier NP in the structural position corresponding to its scope (not overtly)

V. Syntacticians' answer: sentences represented in speakers heads as a *series* of related structures, each of which encodes specific linguistic information, e.g. verb subcategory requirements, topic information etc.

- (13) Transformational Grammar
- | | |
|---------------------|--------------------------------|
| "Deep structure" | subcategorization requirements |
| "Surface structure" | topic of sentence |
| "Logical form" | scope relations |

- Multiple representations, with constraints on how they're related, to make mapping feasible, e.g. Constraints on wh-movement & topicalization

- (14) a. What does Mary think that John solved ___?
b. Who does Mary think ___ likes Bill?
c. Who does Mary think Bill said Sarah thought that Harry met ___?

- (15) a. Mary knows the man that met who?
b. *Who does Mary know the man who met ___?

- (16) a. Bob saw the guy that who knows?
b. *Who did Bob see the guy that ___ knows?

Generalization: can't move wh-phrase out of a relative clause.

- (17) a. Mary thinks John's painting of who could fetch a lot of money?
b. *Who does Mary think John's painting of ___ could fetch a lot of money?

Generalization: can't move wh-phrase out of a subject Noun Phrase

B. From phrase-structure rules to constraints: descriptive advantages

- 1960s: Phrase Structure rules generate deep-structures, transformations create surface structures
- Cross-categorial generalizations --> x-bar theory provides general rule-schema
- Emergence of constraints on movements
- Rule 'conspiracies'

- (18) a. Poirot speaks English fluently.
b. *Poirot speaks fluently English.
c. Poirot sincerely believes English to be important.
d. *Poirot believes sincerely English to be important.
e. Poirot believes sincerely that English is important.

- (19) a. I prefer the boys to leave first.
b. *I prefer very much the boys to leave first.
c. I prefer very much for the boys to leave first.
d. I prefer very much that the boys should leave first.

- Characterizing facts in (1–2) in terms of phrase structure rules fails to capture generalization (Stowell 1981)

C. Principles and Parameters: learning considerations

- Provides possibility of genuinely tractable solution to learning problem

Principles are generalizations which need not be learned, which all languages share

Parameters are specific points of variation between languages

Hope of finite (even small) set of parameters

Hope of very simple pieces of evidence for parameter-settings ("triggers")

Null-subject parameter: English/French vs. Italian/Spanish

- (20) a. Who do you think John likes ___?
 b. Who do you think that John likes ___?
 c. Who do you think ___ likes John?
 d. *Who do you think that ___ likes John?

- Impossibility of subject extraction in clauses headed by *that* presents possible induction problem for learner — why doesn't learner infer from (a–c) that (d) is ok?

- (21) Chi hai detto che ha scritto questo libro?
 who have-you said that has written this book
 'Who did you say has written this book?'

- Existence of cross-linguistic variation in *that-trace effects* makes the learner's problem harder still.

- (22) a. Hanno telefonato.
 have-3pl phoned
 'They have phoned.'

- b. Hanno telefonato molti studenti.
 have-3pl phoned many students
 'Many students have phoned.'

- (23) a. Present: parl-o, parl-i, parl-a, parl-iamo, parl-ate, parl-ano
 Past: parl-ai, parl-asti, parl-o, parl-ammo, parl-aste, parl-arono

- b. Present: speak, speak, speaks, speak, speak, speak
 Past: spoke, spoke, spoke, spoke, spoke, spoke

- (24) a. It is raining. (English)
 b. Il pleut. (French)
 c. ___ piove. (Italian)
 d. ___ llueve. (Spanish)

	English/French	Italian/Spanish
"rich" agreement	no	yes
null-subjects	no	yes
free inversion of subjects	no	yes
overt expletive pronouns	no	yes
impossible		
lack of that-t violations	no	yes

- Suggestion: Italian subjects in apparent *that-t* violations extracted from postverbal position adjoined to VP.

- (25) Why do you think that John likes figure skating ___?

- (26) Chi pro_{2sg} hai detto che pro_{expl} ha scritto questo libro ___?
 who have-you said that has written this book
 'Who did you say has written this book?'

- Inversion and subject questions in Florentine dialect of Italian (Brandi & Cordin 1989)

- (27) a. Mario e parla
Mario SCL speaks
'Mario speaks.'
- b. e parla
SCL speaks
'He speaks.'
- c. * Parla
speaks
- (28) Gl ha telefonato delle ragazze.
SCL_{MSg} has telephoned some girls_{FPI}
'Some girls telephoned.'
- (29) a. Quante ragazze tu credi che gli abbia parlato?
How-many girls you think that SCL_{MSg} has_{3Sg} spoken
'How many girls do you think have spoken?'
- b. *Quante ragazze tu credi che le abbiano parlato?
How-many girls you think that SCL_{FPI} have_{3Pl} spoken

Reading: Roberts pp.149–157; pp.204–210.

D. Evolution of thinking about principles and parameters

- (30) a. Massive increase in study of comparative syntax
b. Many clusters of properties expressed in a parameter seen to fractionate
c. Some things which appeared to vary now look more universal
d. Increased focus on how properties of individual lexical items determine behavior
- (31) Head-direction Parameter
- a. English: V-NP, P-NP, N-RC, Comp-S, Aux-V
b. Japanese: NP-V, NP-P, RC-N, S-Comp, V-Aux
- (32) a. Subjacency constraint (universal): no movement may cross two bounding nodes
b. Subjacency Parameter (Rizzi 1982)
English: bounding nodes NP, S (IP)
Italian: bounding nodes NP, S' (CP)

Reading: Roberts pp.197-198.

Reading: Kenstowicz 1989

Question: in what ways -- if at all -- does Kenstowicz' study of null-subject phenomena in Arabic dialects change the view of the null-subject parameter provide by Rizzi?