

Semantics 1

June 12, 2012

Gerhard Jäger



QR to PP

(1) No student from a foreign country was admitted.

- inverse linking reading:

$$\lambda s. \exists x (\text{COUNTRY}'(s, x) \wedge \text{FOREIGN}'(s, x) \wedge \neg \exists y (\text{STUDENT}'(s, y) \wedge \text{FROM}'(s, y, x) \wedge \text{ADMITTED}'(s, y)))$$

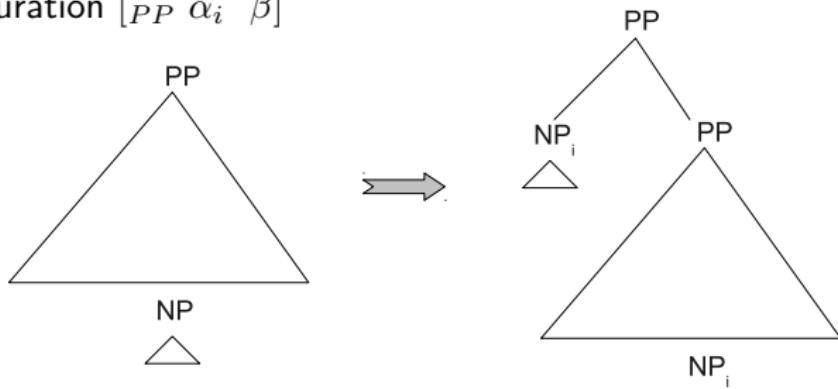
- more plausible reading:

$$\lambda s. \neg \exists y (\text{STUDENT}'(s, y) \wedge \exists x (\text{COUNTRY}'(s, y) \wedge \text{FOREIGN}'(s, y) \wedge \text{FROM}'(s, y, x)) \wedge \text{ADMITTED}'(s, y))$$

QR to PP

Quantifier Raising to PP

- transformation rule “Quantifier Raising”:
 - replace the NP -node α of a generalized quantifier by NP_i
 - replace some PP -node β that dominates α in S-structure by the configuration $[PP \ \alpha_i \ \beta]$



Quantifiers

Quantifier Raising

- interpretation of LF
 - If $[PP_1 \ NP_i \ PP_2]$ is a configuration that results from Quantifier Raising:

$$\|PP_1\| = \lambda P \lambda x \lambda s. P(s, x) \wedge \|NP_i\|(s, \lambda x_i \lambda s. \|PP\|(x, \lambda x \lambda s. \top))$$