

591B Second language acquisition

Psycholinguistics:
relative clauses in online and offline
tasks

Garden path sentences

1. *The horse raced past the barn fell.*

Someone
shot
the servant
of the actress
who was on the balcony

Sentence processing

1. Someone shot [the servant] of [the actress]
who was on the balcony

- High or Low attachment

The garden path model

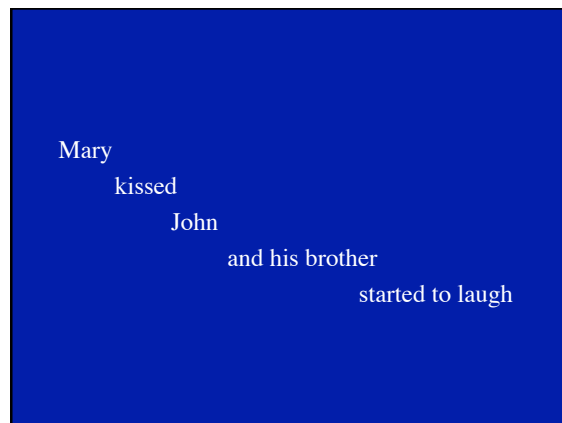
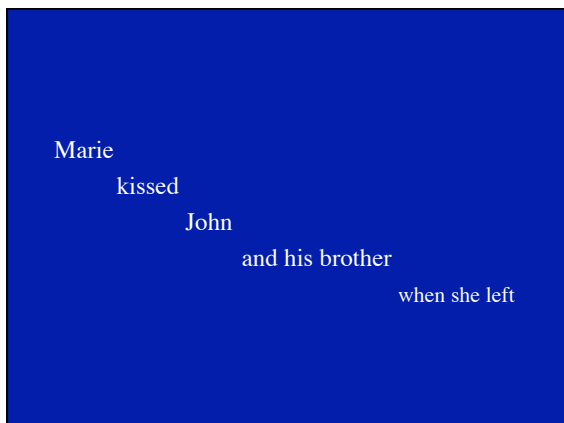
- [Frazier 1987](#) proposes that a single parse is constructed by a syntactic module. Re-analysis is costly and leads to an observable slowdown in reading. When the parser encounters an ambiguity, it is guided by two principles: late closure and minimal attachment.

Late closure

- **Late closure** causes new words or phrases to be attached to the current clause.

1. John said he would leave yesterday

would be parsed as *John said (he would leave yesterday)*, and not as *John said (he would leave) yesterday* (i.e., he spoke yesterday).



Language specific

- Prefer high-attachment: Spanish, German, French, Dutch, Russian
- Or low attachment: English, Norwegian, Swedish, Romanian, BP, Arabic

Lexical bias

The doctor recognized [the pupil]
with [the nurse] who was feeling very tired

Minimal attachment

- **Minimal attachment** is a strategy of parsimony: The parser builds the simplest syntactic structure possible (that is, the one with the fewest phrasal nodes).

The Good enough theory

- Listeners do not always engage in full detailed processing of linguistic input.
- The system has a tendency to develop shallow and superficial representations when confronted with some difficulty.

Method

- 3 groups advanced learners of Greek
 - 18 adults L2, L1 Spanish
 - 19 adults L2, L1 German
 - 10 adults L2, L1 Russian

GJT

- 50 RC: 25 gram, 25 ungram
- 4 conditions:
 - Gen-high
 - Gen-low
 - PP-high
 - PP-low

Acceptability judgment task

- 20 sentences
- 40 fillers

Results on GJT

- High score
- No difference across group languages

GJT

Tab. 2: Mean grammaticality judgment scores (and standard deviations) for relative clauses with complex antecedents

	L2-S		L2-G		L2-R	
	Score	SD	Score	SD	Score	SD
Hits	4.33	0.84	4	1	3.70	1.16
Correct rejections	5	0	4.84	0.50	4.80	0.42

Note: The maximum score in each cell is 5. SD stands for Standard Deviation. L2-S refers to the L2 group with Spanish as L1, L2-G to the L2 group with German as L1 and L2-R to the L2 group with Russian as L1.

Acceptability judgment task

Tab. 3: Mean acceptability judgment scores (and standard deviations)

	GEN-HIGH		GEN-LOW		PP-HIGH		PP-LOW	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
native speakers	4.24	1.10	3.05	1.53	1.62	1.10	2.97	1.67
L2-(Spanish)	3.26	1.72	3.17	1.71	2.06	1.44	3.02	1.76
L2-(Germans)	3.82	1.24	3.54	1.38	2.50	1.40	3.17	1.36
L2-(Russians)	3.50	1.50	2.70	1.53	2.42	1.39	3.04	1.51

Note: A score of '5' stands for completely acceptable and '1' for non-acceptable.

Native speakers

- Preference for low attachment for DP + PP
- For high attachment for DP + DP

NNS Results

- Low attachment for RC with PP (like NS)
- but show no preference in RC attachment with DP-gen (unlike NS)