

**PROSODY AND
ATTACHMENT IN
POSSESSIVE
STRUCTURES**

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- Psycholinguistics
 - Study of language using cognitive psychology
- Sentence Processing
 - Study of how the brain processes sentences above the word level
- Ambiguity
 - The idea that certain sentences can have multiple different meanings.
 - Ex.: Emily got her daughter ready for a bath wearing a t-shirt.
- Prosody
 - The tune and rhythm of spoken language
 - Prosodic Break - A pause between two phrases in a sentence
 - Ex.: Amanda lied # to Jenny.
 - Pitch Accents - An accent on a certain word in a sentence
 - Ex.: Amy asked JEREMY out.

What We Study

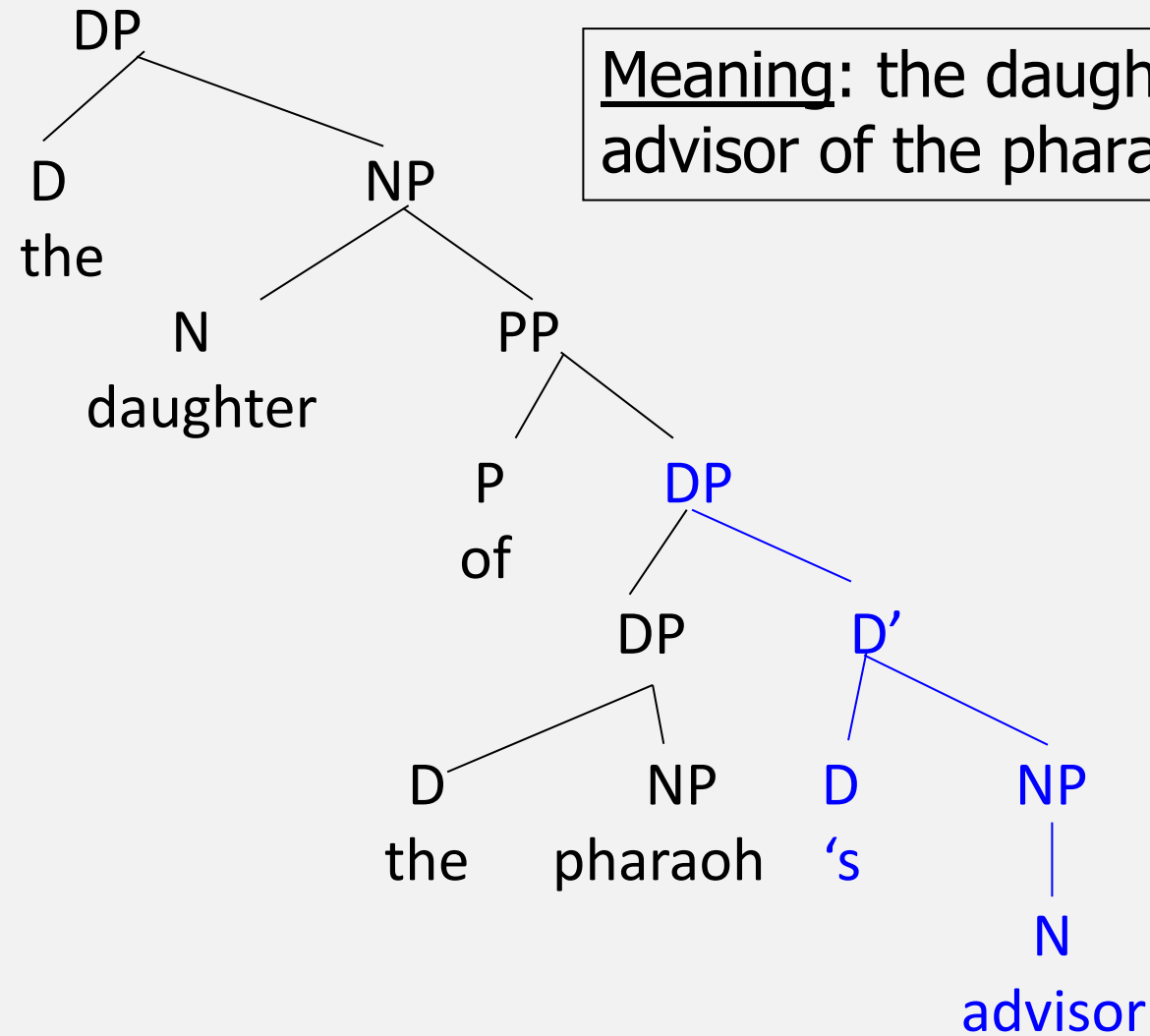
If we examine the following phrase:

- The daughter of the pharaoh's advisor

We can determine that it is ambiguous, and two different attachments can be made.

**PHRASE
AMBIGUITY**

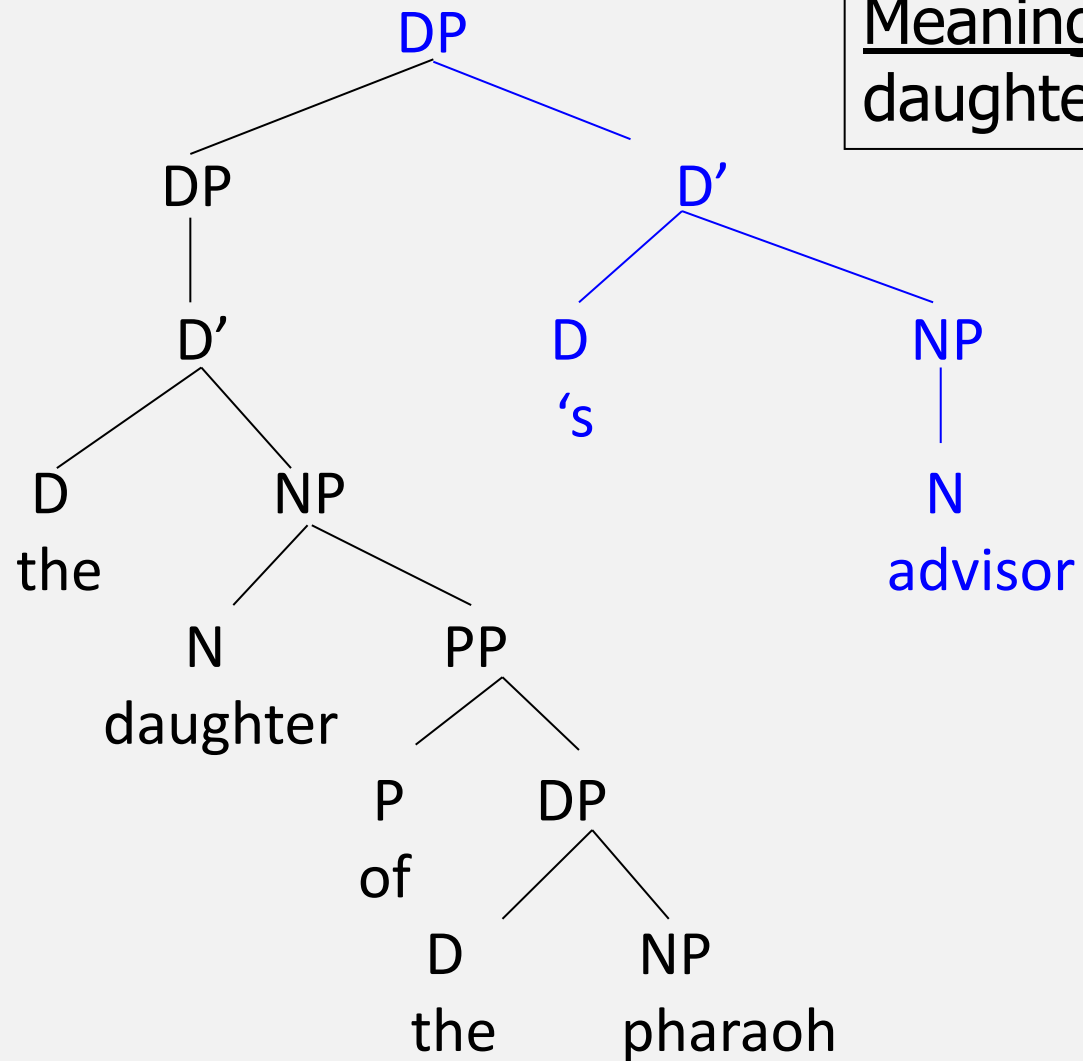
Low Attachment



Meaning: the daughter of [the advisor of the pharaoh]

High Attachment

Meaning: the advisor of [the daughter of the pharaoh]



A modifier preferentially attaches to a focused phrase rather than an unfocused one (Schafer et al. 1996).

- For example, “daughter of the pharaoh’s advisor.”
- There are two interpretations of this phrase: that the advisor is of the daughter of the pharaoh, or just of the pharaoh.
- If the Focus Attraction Hypothesis applies to this structure, then accenting DAUGHTER should increase high attachments.
- If not, then accents may not matter to this choice.

THE FOCUS ATTRACTION HYPOTHESIS

Conditions

Phrase Types

- Played the question "Who was it?" from one speaker and one of the conditions below from another speaker.
- Twenty-four phrases tested in six different conditions:
 - a. the daughter of the pharaoh's # advisor
 - b. the daughter of the pharaoh's advisor
 - c. the DAUGHTER of the pharaoh's # advisor
 - d. the DAUGHTER of the pharaoh's advisor
 - e. the daughter of the PHARAOH's # advisor
 - f. the daughter of the PHARAOH's advisor

Survey

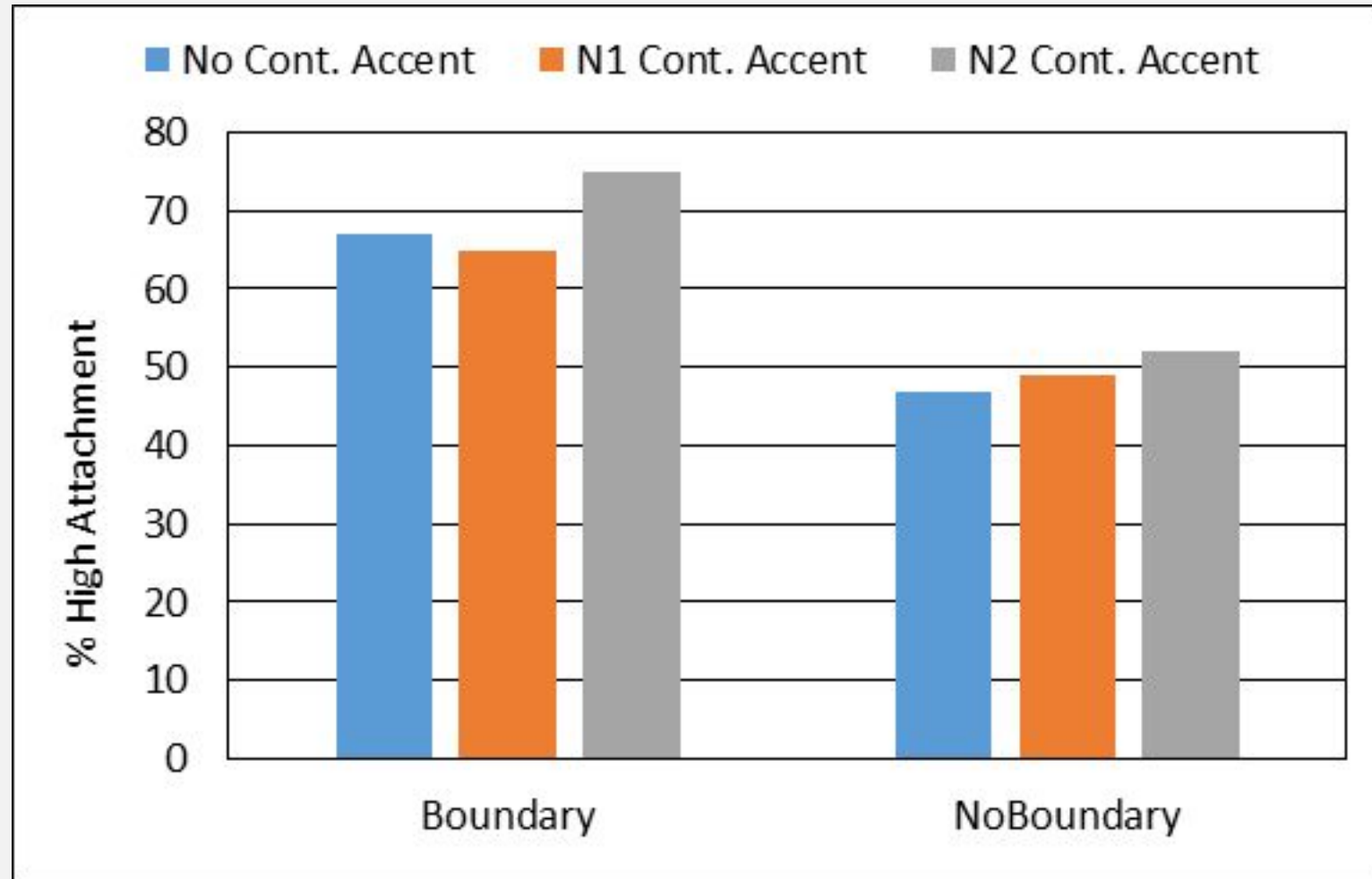
- After hearing the audio file, participants were asked, "What did the response mean?"
 - There's a daughter of the pharaoh, and we're talking about her advisor. (high attachment)
 - There's a pharaoh's advisor, and we're talking about his/her daughter. (low attachment)
- There were seventy-one fillers along with our target sentences in this survey.
- There were sixty-one participants.
 - Participants took the survey through Qualtrics and Amazon Mechanical Turk.

PREDICTIONS

- Based on prior research (Clifton et al. 2002), the prosodic boundary should increase high attachments in the a/c/e conditions
- If Focus Attraction works in this structure, then c-d conditions will have more high attachment choices than e-f

Results

- When there was a prosodic boundary present, there were more high attachments than when there was no prosodic boundary present.
- We did not find that placing pitch accents on noun 1 or noun 2 had a significant effect on whether participants choose high attachments.



DISCUSSION

- Every condition with a prosodic break between *pharaoh's* and *advisor* got more high possessive attachments.
- The Focus Attraction Hypothesis did not work for the structures in this study.
- In this structure, the modifier (*advisor*) actually becomes the head of its own phrase rather than a modifier of earlier phrases.
- Ultimately, prosodic boundaries do influence the attachment while accents do not.

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Clifton, C., Jr., Carlson, K., & Frazier, L. (2002). Informative prosodic boundaries. *Language and Speech*, 45, 87-114.

Schafer, A. J., Carter, J., Clifton, C., Jr., & Frazier, L. (1996). Focus in relative clause construal. *Language & Cognitive Processes*, 11, 135-163.



Thank You