AMBIGUITY AVOIDANCE

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What is Ambiguity Avoidance?

- According to Victor Ferreira and Gary Dell, sentence ambiguity occurs when a sentence "permits more than one syntactic interpretation" (p. 5).*
- The sentence is biased towards one of these interpretations until the point of disambiguation when the first interpretation is found to be no longer appropriate
- Ambiguity avoidance is the idea that we, as speakers, avoid these ambiguities so as to make ourselves as clear as possible

*Ferreira, V.S. & Dell, G.S. (2000). Effect of ambiguity and lexical availability on syntactic and lexical production. *Journal of Cognitive Psychology, 40,* 296-340.)

Why Study Ambiguity Avoidance?

- Finding evidence for ambiguity avoidance will support the idea that speakers modify their speech for comprehenders
- We chose to experiment with ambiguity avoidance by studying audience design
- Audience design is a design in which we can manipulate conditions to show the effects of the presence of comprehenders (an audience) on ambiguity avoidance

Experimental Design

- We used a 2X2X2 Latin Square Design to test the effects of audience design pressure on ambiguity avoidance
- We have three conditions in which we will look for two types of audience design:
  - Course AD
  - Fine AD
- Three conditions:
  - Addressee present, confederate present, no addressee present

Item Stimuli

- 24 target items
  - 12 agents equally
- 24 target pictures, 48 distractor pictures
- 48 fillers will be split equally among four categories:
  - 12 will have the same structure as the target sentences, except the modifying PP will be changed
  - 12 items, the verb will be changed
  - 12 items, the patient will be changed
  - 12 items, everything will be changed
- **Filler Trials:** 16 basic types they are split into:
  - 2 [active or passive] x 2 [verb change or verb identical] x 4 [patient contrast or patient change or AGENT contrast or AGENT change]

Procedure

In order to explain the procedure of our experiment, the next few slides will show an example of a trial

Get Ready

250 milliseconds

Hear sentence

Blank screen in between each experimental screen

250 milliseconds

Speaker chooses the correct picture based on the sentence heard

Target

Difficult distractor

2000 m/s

Blank screen in between each experimental screen

250 milliseconds

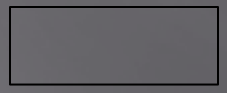
Shows feedback by bordering correct picture

500 m/s

Blank screen in between each experimental screen

250 milliseconds

Task to prevent rehearsal of sentence in phonological loop

4 + 6 = 

2000 m/s

Blank screen in between each experimental screen

250 milliseconds

Speaker is shown the same pictures (with the correct one still highlighted) to describe to addressee

3000 m/s

Addressee's Screen

Addressee screen has picture (same/different order 50/50) 500 m/s before speaker sees final picture to describe to addressee

Addressee's Screen

A

B

1000 m/s

Blank screen in between each experimental screen

250 milliseconds

Addressee receives feedback to show correct/ incorrect choice

500 m/s

After addressee selects picture, speaker receives feedback

Speaker sees whether addressee has selected correct picture based on the speaker's description

500 m/s

Coding for Variables

- speaker choosing correct picture
- speaker describing correct picture for addressee
- addressee selecting correct picture
- speaker using same ambiguous form as the original sentence presented to them when addressee is not present
- speaker using same ambiguous form with addressee present
- speaker changing form of sentence when describing picture to addressee
- speaker changing form with no addressee present
- speaker choosing incorrect picture in first task
- speaker describing incorrect picture to addressee
- speaker answering simple math problem incorrectly
- addressee choosing incorrect picture
- speaker using too many sentences to describe picture
- speaker producing disfluencies in describing picture