Evaluating truth: Experimental evidence from appositives and conjunctions
Margaret Kroll and Amanda Rysling • University of California, Santa Cruz • margaretkroll@ucsc.edu

RESEARCH QUESTION: Do comprehenders weigh all content equally when evaluating sentential truth?

1. Contribution of Appositives to Sentential Truth
Are the following sentences True or False?
1) Boulder is at sea level and is east of California.
2) Boulder, which is at sea level, is east of California.

Reported judgments of the falsity of sentence (2), which contains an appositive, are less clear than judgments of (1).

It is debated whether appositives, as not-at-issue content, contribute a semantic truth value to their containing sentence:
No: Appositives (as in (2) above) compose semantically separately from main clause content [2, 4, 5, 6, 7].
Yes: Experimental and corpus evidence suggests that appositives contribute a truth value to their containing sentence in a manner similar to conjunctions [1, 3].

Hypothesis: Truth and falsity, which can be evaluated relative to visually presented stimuli, is modulated by clausal type and relevance to conversational goals.

Experimental Design

What can you tell me about the shapes?

The square, which is next to the spotted circle, is pink.
1. True.
2. False.

Alterations from previous investigations:
- Fully crossed design directly compared sentences containing appositives vs. conjunctions.
- Provided the situation (shapes and colors) that truth was evaluated relative to.
- Included Question under Discussion (QuD) to manipulate relevance of clausal information [3, 8].

Experiment 1
Design 2 x 2 x 2: Clause (appositive or conjunction) x First Clause (T or F) x Second Clause (T or F)
80 items, 160 fillers, n = 48
Task Forced choice True/False; confidence ratings 1-5
QuD: What can you tell me about the shapes?

Experiment 2
QuD: What color is the square?

Main Finding: False clauses irrelevant to the QuD were discarded about 50% of the time, regardless of clause type.
Was this result due to lack of attention allocation?

Experiment 3
Inclusion of verbatim memory recognition task

Main Finding: Same pattern found when people were required to allocate attention to non-relevant clauses.

Results: Mean 82% (12% s.d.) correct on item verbatim memory questions. Confidence rating means all 4.25 or higher.

5. Conclusion & Future Directions
Even conjunctions — whose semantic truth-conditional contributions are not under debate — could be pushed around in experimental settings.
What do these results tell us about evidence weighting in sentential truth evaluation?
- Evidence weighting for clauses is modulated by relevance to the QuD.
- Findings suggest top-down / goal-oriented behavior is relevant to determining sentential truth.
- No strict mapping from semantic predictions of truth to speaker evaluations of sentential truth.

Future Direction: Exploration of Truth Table Evaluators (truth judgments insensitive to relevance to QuD) vs. Relevance Evaluators (truth judgments based on clausal relevance to QuD).

REFERENCES:

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