Memory Retrieval During the Processing of Adjuncts and Co-Ordination

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Cue-Based Parsing

- Cue-based parsing predicts linguistic dependencies should be susceptible to similarity-based interference (Jager et al., 2017; Lewis et al., 2006; McElree, 2000).
- One well-studied example of interference comes from illusions of grammaticality in subject-verb agreement (e.g., Lago et al., 2015; Rogers et al., 2009).

1. The key to the cabinet/s was rusty
2. The key to the cabinet/s were rusty

The Current Study

- We investigated illusions of plausibility in two experiments (n = 48 in each)
- Experiment 1 investigated temporal adjuncts (see below)
- Experiment 2 tested identical materials but with coordination e.g. The detective/criminal stood by the cop/car and then arrested the robber outside the bank.

(A) Plausible, Animate Distractor
The detective stood by the cop very calmly after arresting the robber outside the bank.

(B) Plausible, Inanimate Distractor
The detective stood by the car very calmly after arresting the robber outside the bank.

(C) Implausible, Animate Distractor
The criminal stood by the cop very calmly after arresting the robber outside the bank.

(D) Implausible, Inanimate Distractor
The criminal stood by the car very calmly after arresting the robber outside the bank.

Summary & Conclusions

- Significant plausibility effects in both experiments, with numerical but not significant interference effects.
- Combined analysis of regression path in both experiments revealed significant plausibility by distractor interaction.
- Results suggestive of interference in temporal adjuncts (see also Parker et al., 2015) and co-ordination.
- Interference may have been attenuated here because the distractor did not match the [+SUBJECT] retrieval cue of the verb (see Van Dyke & McElree, 2011).

Illusions of Plausibility

- Recent research has also implicated illusions of plausibility in filler-gap dependencies (Cunnings & Sturt, under review).
- 3. Sue saw the plate that the butler with the cup/tie accidentally shattered earlier today
- 4. Sue saw the letter that the butler with the cup/tie accidentally shattered earlier today
- Such illusions suggest interference influences perception of sentence plausibility as well as grammaticality.

Adjuncts and Co-Ordination

- The extent to which illusions of plausibility are observed in other linguistic dependencies is not known.
- Some evidence of such illusions in temporal adjuncts (Cunnings & Sturt, CJNIY 2014).
- 5. The policeman/criminal who saw that the cop/car was waiting shouted loudly before arresting the robber for theft.
- Can we find further evidence of illusions of plausibility?

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