The impact of coordination on agreement processing: Abstract and surface cues to plurality
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Introduction

What level of linguistic representation do retrieval cues target in agreement computation?

Comprehenders use cue-based memory retrieval to establish dependencies between non-adjacent linguistic items, such as subjects and verbs.

Agreement attraction: a structurally inaccessible noun-phrase matching the number cue on the verb leads to facilitated processing of sentences with subject-verb agreement violations.

Here we use coordination to ask whether retrieval cues target syntactic or morphological representations in agreement computation in comprehension.

Do conjoined singular noun phrases, which are syntactically plural without containing an overt plural morpheme, cause agreement attraction?

Experiment 1: Self-paced reading (N=42)
- Large grammaticality effect in singular control conditions (48ms)
- Expected reduced grammaticality effect in plural conditions (11ms)
- Reduced grammaticality effect in conjoined conditions (12ms)

Difference in acceptability rates between grammatical and ungrammatical sentences

Experiments 2 & 3: Speeded acceptability (N=26; N=21)
- Exp. 2 confirms conjoined agreement attraction effect from Exp. 1 in speeded judgment task
- Exp. 3 confirms conjoined agreement attraction effect does not depend on 2nd determiner (‘the key to the cabinet and dresser’)

Summary:
- Both SPR and speeded-acceptability judgments indicate agreement attraction effects with conjoined singular attractors.
- This suggests that overt plural morphology is not necessary for agreement attraction.

Is the attraction effect with conjoined singular attractors a result of a processing heuristic treating ‘and’ like a plural morpheme?

Experiment 4: Self-paced reading (N=41)
- Tested singular attractors with conjoined adjectives: *The key to the cabinet and dresser is/are rusty.
- Large grammaticality effect in singular control conditions (48ms)
- Expected reduced grammaticality effect in plural conditions (11ms)
- Small reduction in grammaticality effect in singular conjoined adjectives conditions (29ms)

Experiment 5: Speeded acceptability (N=22)
- Confirms small agreement attraction effect with singular attractors with conjoined adjectives

Summary:
- Singular attractors with conjoined adjectives cause attraction effects despite being syntactically singular, but to a smaller extent than plurals or conjoined singulars.
- Is this because conjoined adjectives are more likely to be used with plural nouns? Offline completion data suggests not (plural completions with single adjective: 4%; conjoined adjectives: 4.5%)
- Attraction from conjoined adjectives may reflect association between the word ‘and’ and the plural feature in LTM, such that it receives some activation from the plural retrieval cue.