Discourse-level processing of English possessed nouns
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1. Introduction
- Not all referents in our mental discourse representations are equally prominent
  - e.g. subjects tend to be more prominent than objects (e.g. Chafe, 1976)
- Notable properties of possessives:
  - Express a broad range of relations (e.g. Langacker, 1995)
  - Two entities in one minimal constituent (possessor and possession)
- Little psycholinguistic work on the discourse-level behavior of possessives
- Storbeck & Kaiser (2018) investigated how possession type modulates interpretational preferences in ambiguous VP ellipsis
  - Strict/sloppy ambiguity: Mary drove her car, and Lisa did, too.
  - Tested four possession types in forced-choice ellipsis interpretation task
    ▪ Part-whole (e.g. nose, feelings)
    ▪ Ownership (e.g. jacket, newspaper)
    ▪ Relational (e.g. opponent, colleague)
    ▪ Kinship (e.g. father, aunt)
- Animates more prominent in discourse (e.g. Bock et al., 1992; Dahl, 2008)
- Our discourse-based model: possessed nouns differ in dependence of their discourse representations on possessed/possessor' representations
  - Animacy predicts discourse (in)dependence
    ▪ Animacy possesses -> more independent/prominent status
    ▪ Animacy possessors -> more dependent/non-prominent status
- Animacy effects are in line with previous work demonstrating overall greater prominence of animates, and more independent/prominent discourse representations than inanimate ones
- For Storbeck & Kaiser (2018), discourse status affects ambiguity resolution
  - Independent discourse status -> strict/coreference more likely
  - Dependent discourse status -> sloppy/bind more likely
- However, VP ellipsis interpretation is an indirect measure of discourse status

2. Research questions
- How are possessive constructions processed on the discourse level?
  - Can we find more direct support for our model of possessive processing?
- Do different possessive relations (as determined here by animacy of the possessor) affect discourse-level processing?
- Are different types of possessed entities more or less likely to be mentioned subsequently in the discourse?
  - What types of forms are used to refer to different types of possessed entities later in the discourse? Do possession types vary in pronoun accessibility?

3. Methods
- Sentence continuation (24 targets, 32 fillers; L1-English MTurkers (n=40)
- 2x2 design: we manipulated: (i) animacy of the object (human role nouns vs. alienable objects) and (ii) possessed vs. indefinite object

4. Predictions
- Animacy effect: if the most prominent entities are realized as subjects, and animates are overall more prominent, animate objects should be more likely than inanimates to be subjects of continuations, regardless of possession status
- Interaction of animacy and possession: if discourse representations of possessed animates are preserved in a way that goes beyond animacy effects in prior work, we expect an interaction of animacy and possession
- We expect tension between preceding subjects' discourse persistence and animate objects' inherent prominence
  - Will animate objects be promoted to subject position despite special status of preceding subjects?

5. Results
- Mentions of the preceding subject
  - Animacy effect: preceding subjects more often as subject of continuation when preceding object is inanimate (glmer, p<0.01; Fig. 1)
  - Advantages in prominence for animates
  - Interaction of animacy and possession (Q): possessed animates more likely as subjects than inanimate objects (p>0.05; simple effect, p<0.03; Fig. 1)

6. Discussion
- Interactions of animacy and possession support our model of possessive processing; animacy modulates the effect of possession
- Why aren't indefinites more prominent than possessibles? Potential non-specific indefinite interpretation -> decrease in prominence (Chiriacescu & von Heusinger, 2010). For animate objects, conceptual link to topical possessor may increase object's prominence and shift focus to salient human relationship
- Animacy effects are in line with previous work demonstrating overall greater prominence for animates, but increased competition among multiple animates in discourse, even when they are distinguished by gender (Arnold & Griffin, 2007; Chiriacescu, 2015; Fukumura & von Gompel, 2011)

- Preceding subjects pronominalize far more frequently than preceding objects
  - More pronouns for preceding subjects as continuation subjects (Fig. 3), despite more animate preceding objects as subjects overall (Fig. 1)
  - Supports theory of pronominalization which dissociates the probability of mention and probability of pronominalization (e.g. Kehler et al., 2008)