Discourse-level processing of English possessed nouns
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Not all referents in our mental discourse representations are equally prominent or salient; subjects, for example, tend to be more prominent than objects, other things being equal (e.g. Chafe, 1976; Crawley et al., 1990). However, there is little psycholinguistic work on the discourse-level behavior of possessive constructions, specifically adnominal possessives (x’s y, e.g. Sam’s car). Unlike simpler nominals (e.g. the car), adnominal possessives explicitly reference two entities: a possessor (Sam) and a possession (car). How these two entities are represented and linked in discourse-level processing is understudied. An exception is Storbeck & Kaiser (2018) (‘S&K’), which examined the interpretation of ambiguous adnominal possessives in VP ellipsis. S&K hypothesize a possession’s animacy modulates its discourse status, and that animate possessions (e.g. his opponent) are more likely to have discourse representations independent of their possessors’ than are inanimates (e.g. his bicycle)—in essence, that animate possessions are represented more prominently in discourse than inanimate ones. This claim builds on work showing that animacy has discourse-level effects (e.g. Chiriacescu, 2015; Dahl & Fraurud, 1996; Givón, 1983). However, S&K do not provide a direct measure of discourse prominence, as their focus is on the interpretation of VP ellipsis.

To test more directly whether animate and inanimate possessions differ in discourse representation, we used a narrative-continuation task, which has been argued to measure the prominence of competing entities in the discourse (e.g. Arnold, 2001). Prior work shows that prominent referents are more likely to be mentioned again than non-prominent referents (e.g. Givón, 1983). Analyzing which referents are chosen as subjects of continuations thus provides a measure of which referents are most prominent (e.g. Arnold, 2001; Stevenson et al., 1994).

**Methods:** Adult L1 English speakers (n=40) read prompt sentences (24 targets, 32 fillers) and wrote one-sentence continuations. Targets followed the frame: [name] [nonce verb] [indefinite/possessive] [animate/inanimate]. (see examples in Table 1). We manipulated (i) the animacy of the object (human role nouns vs. alienable objects) and (ii) whether the object was possessed or indefinite. Nonce verbs minimized potential effects of verb semantics.

**Predictions:** Given prior work on animacy, we hypothesized that animate objects would be more likely than inanimates—regardless of possession status—to be mentioned in subject position of continuations. We also expected tension between subjects’ discourse persistence and animates’ inherent prominence; will animate objects be promoted to subject position in spite of the well-known special status of preceding subjects? Crucially for S&K’s theory, if the discourse representations of possessed animates are privileged in a way that goes beyond a simple animacy effect, we expect an interaction between animacy and possession.

**Results:** We find an animacy effect: animate objects are more likely than inanimates to be mentioned in subject position (glmer, p<0.001) and are the more likely subjects compared to preceding subjects in conditions where they competed with each other (>chance=0.5, p<0.02) (see Fig. 1). We attribute this competition to animate direct objects being infrequent/marked—therefore especially worthy of mention (Dahl & Fraurud, 1996). Indefinite and possession conditions do not differ in the likelihood of the continuation’s subject being the preceding object (no main effect, p=0.30). Importantly, we find a marginal interaction between animacy and possession (p=0.05; significant simple effect, p=0.03): animacy boosts possessions’ likelihood of mention more than indefinites’. This finding fits with S&K’s proposal that animate possessions are more likely than inanimate possessions to have independent discourse representations.

Animacy’s special effect on possessions becomes even clearer when we look at how likely people are to mention the preceding object anywhere in their continuation sentences (see Fig. 2). Here we see a significant interaction between animacy and possession (p<0.01): animacy boosts the likelihood of mention for possessed objects more than for indefinite objects. These results support the claim that animacy modulates the discourse-level representations of possessives. Further analyses related to the form of mention are planned.
Table 1. Example targets by condition. Names’ expected gender mismatched the stereotypical gender of the animate objects to minimize referential ambiguity (Misersky et al., 2014).

<table>
<thead>
<tr>
<th>F-M Gender Bias</th>
<th>Indefinite Animate</th>
<th>Possessive Animate</th>
<th>Indefinite Inanimate</th>
<th>Possessive Inanimate</th>
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Figure 1. Does the subject of the continuation sentence refer back to the preceding subject, preceding object, or something else? (proportions are separated by condition)

Figure 2. Does the continuation mention the preceding subject or object in any position?