1. Introduction

- Two mechanisms for pronoun interpretation (e.g. [5,8,9]):
  - Semantic-level binding
  - Discourse-level coreference
- Applied to ambiguous VP ellipsis:
  - Discourse prominence effects and VP ellipsis interpretation
- Research Questions:
  - How does the effect of alienability compare to animacy?
  - Do different possession relations modulate interpretational differences in utterances like (1)?
- Possessives can express many types of relations in English VP ellipsis.
- Two mechanisms for pronoun interpretation (e.g. [5,8,9]):
  - Coreference
  - Semantic
- Suggestive of cognitively distinct classes (e.g. possessive, adpossessional) in many languages: different relations and other human associations (e.g. possession). Not just ownership and part-of-whole.
- Nominal: self/other-directedness (2), implicit causality (7)
- Alienable [2], but with caveats: Previous work examined L1-learning children (results may not generalize to adults; task constraints)
- Compared only concrete part-whole and ownership possession relations (no animates involved)
- Animate [1], but with caveats: No experimental data, rather subtle judgments
- Did not examine VP ellipsis specifically
- Possessives can express many types of relations
  - Not just ownership and part-whole, but kinship (e.g. her father) and other human associations (e.g. his colleague), i.a.
  - Many languages: different relations lead to different morphosyntax (4)
  - Maltese: id-il ‘my hand’; ktieb-ì-il ktieb tiegh-il ‘my book’ (4)
  - Suggestive of cognitively distinct classes lead to processed differently?

Research Questions:
1. Do different possession relations modulate interpretational preferences for sentences like (1)?
   - What processing mechanisms drive these differences?
2. How does the effect of alienability compare to animacy?
   - Previous work sets up competing hypotheses:
     - Alienability hypothesis: inalienable possessors result in more BV interpretations than do alienable possessors
     - Animacy hypothesis: inanimate possessors result in more BV interpretations than do animate possessors

2. Experiment 1

- Tested how four possession relations modulate adults’ BV bias
  - Part-whole (e.g. nose, feelings), [alienable, animate]
  - Ownership (e.g. jacket, newspaper), [+alienable, -animate]
  - Relational (e.g. opponent, colleague), [+alienable(?), +animate]
  - Kinship (e.g. father, aunt), [-alienable, +animate]
- Forced-choice ellipsis interpretation task (24 targets, 40 fillers)
- Task: “Choose the option most compatible with your interpretation”
  - Target format: (12 male, 12 female; counterbalanced choice order) [Name1] [nonce verb-PST] his/her [noun], and [Name2] did, too.
  - N nonce verbs (e.g. dreezed, swudged) avoid effects of verb semantics (7)
  - Latin square design
  - Participants: 48 adult native speakers of American English from MTurk
- Results: (glmer used for all comparisons)
  - Inalienable + ownership (p = 0.57)
  - Inanimates > animate (p < 0.001)
  - Animate relational > kinship (p = 0.001)
- Discussion (Storbeck & Kaiser, 2018):
  - Animacy hypothesis supported (inanimate yields more BV than animates)
  - Possession’s animacy predicts bound variable bias better than alienability

3. A discourse-based model

- We hypothesize that possessed nouns differ in the (in)dependence of their discourse representations
  - Animacy modulates discourse (in)dependence
    - Animate possession → independent discourse status more likely
    - Inanimate possession → dependent discourse status more likely
  - (In)dependence of representation affects ambiguity resolution
    - Independent discourse status → coreference more likely
    - Dependent discourse status → variable binding more likely

4. Testing the model: Exp. 2 & 3

- Quantified NPs (e.g. every-e) do not introduce discourse referents (8)
  - If the matrix-clause subject is a QuNP (Exp2), no opportunity for independent representation for the possessed noun
  - Possession’s animacy predicts coreference impossible for all possession types
  - Possession type affects resolution of possessive pronouns in English VP ellipsis.
- Results:
  - Matrix QuNP: strong BV bias in all conditions, no animacy effect (p > 0.05)
  - Elicited QuNP: animacy effect (p < 0.001), no difference between relational and kinship nouns (p = 0.60)
  - Basic pattern of results in follow-ups where QuNPs mismatch names in gender

5. General discussion

- Results support our discourse-based model of possessives
- Possession’s animacy plays a significant role in ambiguity resolution
- Animacy outperforms alienability as a predictor of BV bias
  - Other factors may also contribute:
    - Verbal semantics, alienability, situational knowledge
- Additional norming study shows Exp1 results are not reducible to the noun’s likelihood of possession by an “average person” (10)
- Follow-up: Why do we find a difference in BV bias between animate and inanimate in Exp1? (not predicted)
  - Are kin referents more independent/privileged in the discourse due to their inherent cultural prominence/salience?
- Why should this difference disappear in the presence of the QuNP?