**Background**

**Filler-gap dependencies**
- Listeners anticipate gap’s position prior to the arrival of disambiguating information
- Predictions about the gap site are constrained by grammar (Stowe, 1986; Traxler & Pickering, 1996; Wagers & Phillips 2009)
- Lexical activation of the filler declines after it is introduced and increases again at the gap site
- Some lexical information associated with the filler is retrieved at the end of the dependency (Love & Swinney, 1996; McElree 2000)

**Resumptive pronouns (RPs) and dependency formation**
- RPs are pronouns which occupy the gap position
- RPs were suggested to aid retrieval in long or complex dependencies (Alexoploulou & Keller, 2007; Erteschik-Shir, 1992; Hawkins, 1999)
- Experimental evidence failed to show consistent facilitation resulting from RPs in extra-grammatical resumption languages (Alexoploulou & Keller, 2007; Polinsky et al., 2013)

**Research Question:** What are the effects of resumption on filler retrieval in Hebrew, a grammaticized resumption language?
- Two cross-modal priming experiments probed the semantic activation of the filler throughout the processing of object relative clauses (RCs)

**Method**

Exp. 1:
- 68 participants
- 36 experimental and 36 filler sentences
- Object RCs with gaps/RPs in relativized positions.
- RT matched lexical decision probes related/unrelated to the filler appeared on a computer screen at:
  1. PosA: the offset of the relative head
  2. PosB: 8 syllables downstream from PosA
  3. PosC: the offset of the embedded verb.

Exp. 2:
- 63 participants
- Lexical decision probes appeared at the offset of the RP (on RP trials) or at matched timings from the verb (on gap trials) (PosD)

RP and gap sentences start diverging at PosC, since task is completed while next word is played.

Statistical analyses: Mixed-effects linear regression

**Discussion**

- Occurrence of RPs controls the time course of dependency formation in Hebrew
  - Gap trials: indication of filler retrieval at the offset of the embedded verb (PosC), RT trials: indication of filler retrieval only later, at the offset of the RP (PosD)
  - no indication that RPs facilitate the retrieval of the filler
  - RPs cause a slow-down in dependency formation?
    - Hypothesis: The dependency can be resolved without RPs → RPs are redundant → slow-down in dependency formation
  - Future research can examine the time course of dependency formation in sentences with islands, where RPs are mandatory

References:

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