Beneficial and (dis)preferred: Why do we omit prepositions from ellipsis remnants?

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Structure and Evidence in Linguistics
April 29, 2013

Introduction

- ▶ Sluicing is a construction where the remnant is a stranded wh-phrase with the semantics of an interrogative clause

  (1)   Scott came **for an audition**, but I don't know **(for) which**.

- ▶ Fragment answers involve a stranded XP with the semantics of a declarative clause

  (2)   A: **What** are you majoring **in**? B: **(In) information systems**.

- ▶ Remnants have PPs as correlates (*for an audition* and *what in*) but use of the prepositions (Ps) in remnants is optional.

Problem

- 'no-one has even hinted at how to account for these facts without using a theory of preposition-stranding' (Merchant 2010)

Preposition-Stranding Generalization

▶ A language L will allow preposition-stranding under Sluicing just in case L allows preposition stranding under regular WH-Movement. (Merchant 2001:107)

   (3)   Kelly is working **on something**, but I don't know **what** ~~Kelly is working on~~.

▶ Predicts that English and Norwegian, but not Polish, tolerate remnants without Ps

Processing account

- Building on Ariel (1990, 2001)
- Anaphoric expressions code mental accessibility of their antecedents: More informative expressions point to low-accessibility antecedents
- Remnants with Ps are more informative than remnants without Ps → Remnants with Ps point to low-accessibility correlates
- All languages should tolerate remnants without Ps

Mental accessibility of correlates

- Determined by informativity (see Ariel 1990, Hofmeister 2007)
- Metric: syntactic and semantic features (max. 10)
- CAT, number, grammatical gender, case, animacy, humanness, concreteness, natural gender, attributive (age, color, size, shape), referent (singleton or nonsingleton set)
- *a gentleman* has the informativity score of 0.70
- *something* has the informativity score of 0.40

Evidence for informativity effects

- ▶ Correlates with higher informativity scores prefer remnants without Ps
- ▶ Norwegian eye movement data: progressive vs. regressive eye movements
- ▶ Norwegian acceptability judgment data
- ▶ Polish corpus data
- ▶ Polish acceptability judgment data
- ▶ English corpus data
- ▶ English 100-split task (see Ford and Bresnan 2010)

Evidence for informativity effects: English

- Reprise questions prefer remnants with Ps

  (4) A: There are many women with that? B: With what?

  (5) A: Have you heard of Yani? B: Of who?

- But not if the correlate contains an NP

  (6) A: What happened with the car? B: What car?

Remnants with Ps have the upper edge!

- Eye movement study of Norwegian sluicing
- First fixation duration on remnant region always shorter for remnants with Ps (provided that Ps were fixated) than for remnants without Ps ($p < 0.003$)
- Remnants with Ps provide better retrieval cues

Overall preferences

- Norwegian and English reveal an overall preference for remnants without Ps
- Polish reveals an overall preference for remnants with Ps
- Why?

Why?

- Availability of multi-word verbs (i.e., prepositional verbs) is crucial
- Combinations of V and P whose compositionality is gradient (Brinton and Traugott 2005)
- English and Norwegian have multi-word verbs, but Polish doesn't
- English as a test case

Identifying English multi-word verbs

- Entailment tests (Hawkins 2000, 2004)
- Verb entailment test
  If [X V PP] entails [X V], then assign Vi. If not, assign Vd.
- Pro-verb entailment test
  If [X V PP] entails [X Pro-V PP] or [something Pro-V PP] for any pro-verb sentence listed below, then assign Pi. If not, assign Pd.
  Pro-verb sentences: *X did something PP; X was PP; something happened PP; something was the case PP; something was done (by X) PP.*

Levels of semantic dependence

- Level 0: semantic independence
- Level 1: one-way semantic dependence, where either V or P depends on the other category
- Level 2: two-way semantic dependence, where V and P depend on each other
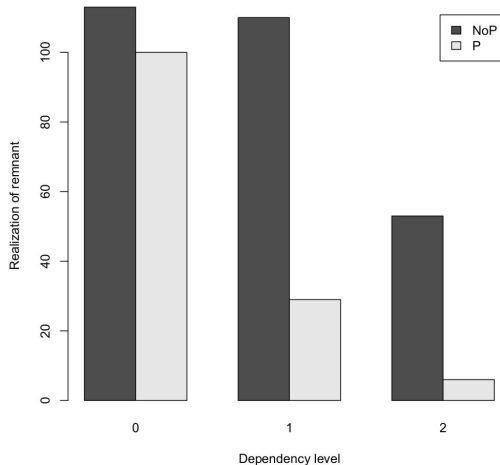
English data

Figure: Realization of ellipsis remnants by dependency level of V and P

Reanalysis

- Where a V and P show some level of semantic dependence, they're on their way to semantic reanalysis (though not necessarily syntactic): [V + PP] → [[V + P] + POBJ]]

- The human processor needs simultaneous access to both (Hawkins 2004)

    (7)   A: Pat fell for a scam again, but I'm not sure *for what scam.

    (8)   A: Pat came across something in the basement, but I don't know *across what.

Discussion

- Remnants with Ps facilitate retrieval of correlates
- Correlates with high informativity scores prefer remnants without Ps
- **But crucially, availability of multi-word verbs influences overall preference for remnants with Ps or for remnants without Ps**
- We have an account that makes no reference to availability of P-stranding

Thank you!