Good-eNough Production and the English *Spray-Load* Alternation

Emily Goodwin, Satya Vargas, Judith Degen

for the impact of the following the contract of the contract o





Stanford University Department of Linguistics

Background

- How do speakers choose between similar alternatives, like
 (1) load the truck with hay and (2) load hay on the truck?
 - 1. Semantics of the Forms differ ("Holistic Effect") [1, 4, 6]
 - Location-first form entails location is entirely affected
 - Others argue against an entailment, report that the 'entailment' is cancellable or pragmatically enforced
- II. Accessibility- Based Production (ABP): [2, 3]
 - More accessible nouns are produced earlier
 - ABP experiments are based on equally true alternatives
- III. Good-eNough Production (GNP): [5]
 - Speakers trade off accessibility with message alignment
 - Past GNP experiments use single-word utterances

Findings

- Support for a modified holistic effect, but no holistic entailment, for some verbs
- More accessible nouns are produced earlier, even when the resulting utterance is not meaning equivalent
- No evidence for GNP tradeoff: more similar items not more susceptible to accessibility effects

Production Experiment: Methods

Sam had a truck. He loaded...



Sam had a truck. He loaded...



Location-Given, Fully-Affected

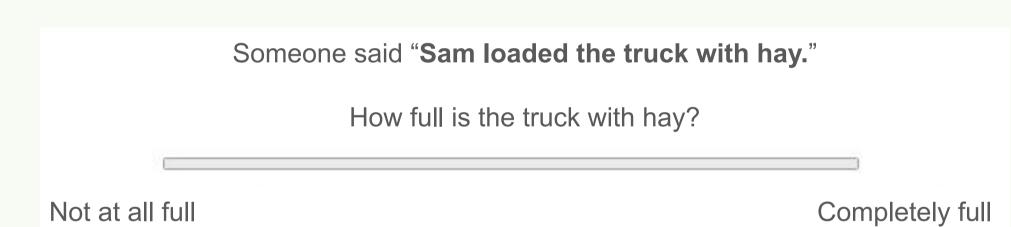
Location-Given, Partially-Affected

- (1) Sam loaded the truck with hay.
- (2) Sam loaded hay on the truck.

Location-first **Substance-**first

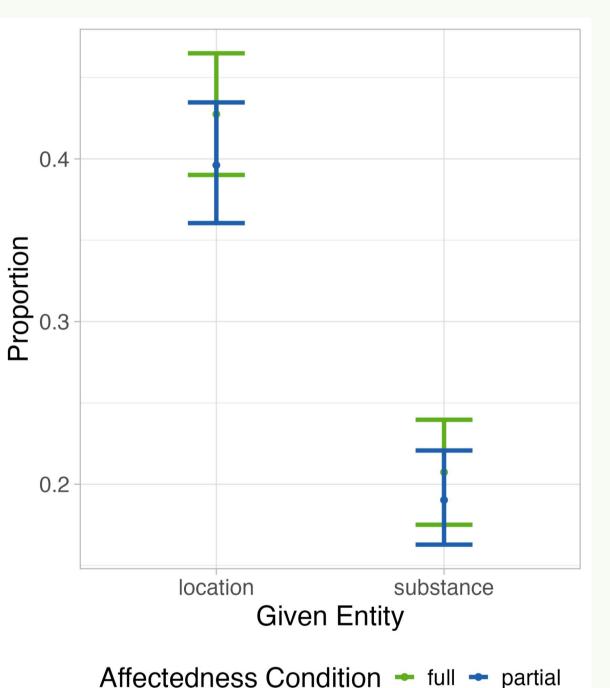
- English L1 Prolific workers (after exclusions n=183)
- Online picture-description task, spoken production
- Read prompt aloud, completing it by describing an image
- Noun-name learning phase, followed by:
 - 16 spray-load trials (load, spray, spread, stuff)
 - 16 control trials (cover, fill, put, place)
 - 4 filler trials (bring, show)

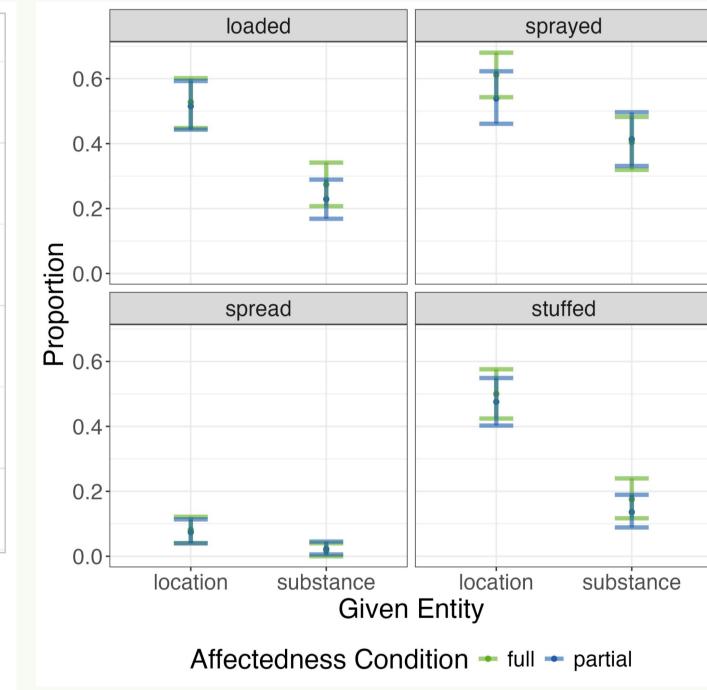
Comprehension Experiment: Methods



- Prolific participants (n = 349) read *spray-load* sentences and judged how affected the location objects would be
 - Sub-first condition: load the hay on the truck
 - Loc-first condition: load the truck with hay
 - Ceiling control: fill the truck with hay
 - Floor controls: *drain the water from the tub.*

Production Experiment: Results



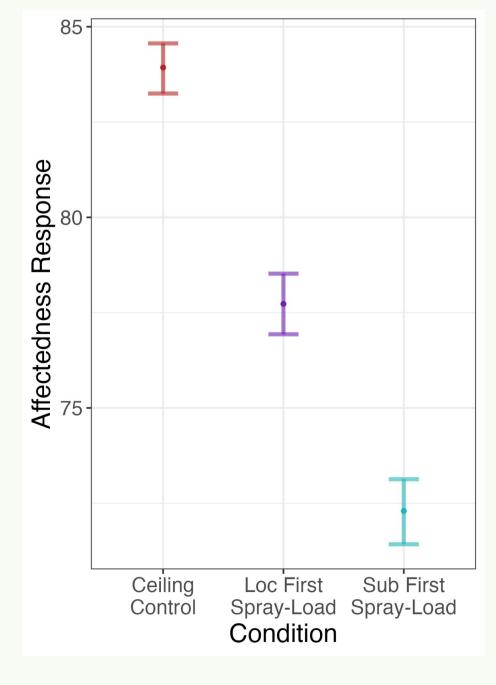


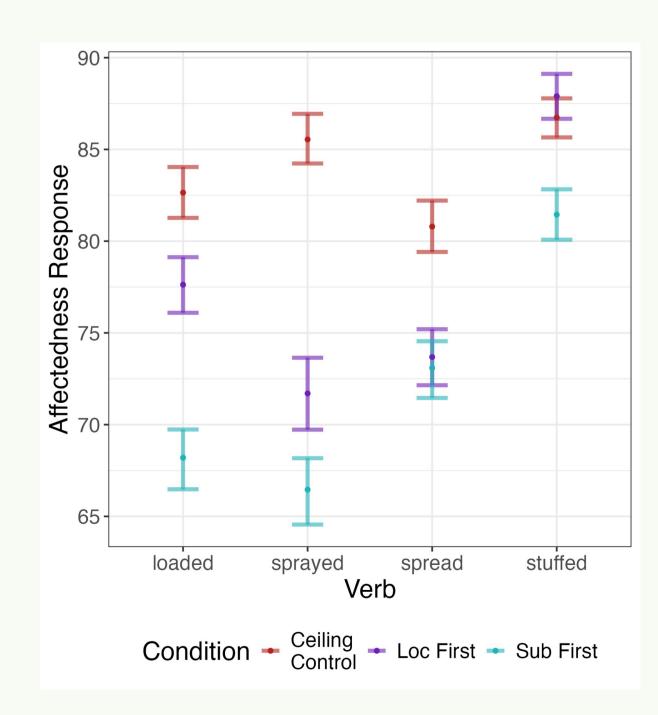
Proportion of responses in Location-first form. **Left**: over all verbs; **Right**: by verb

- Given locations are associated with more location-first forms $(\beta = 1.69 \ SE = 0.33 \ P < .001)$
- Fully-affected condition marginally associated with more location-first forms (β = 0.19 SE = 0.11 P = .09)
- Verbs differ in their baseline preference for substance-first form, and in the strength of givenness effect
- No support for the GNP prediction: items which are more similar in meaning do not have stronger accessibility effects
 - Location-substance pairs with larger meaning difference in comprehension associated with more location-first forms $(\beta = .12 \ SE = .01 \ P < .001)$ but no interaction between meaning difference and givenness $(\beta = .02 \ SE .02 \ P = .31)$
 - Relative to *load*, other verbs have more similar meanings between location- and substance-first forms (see left)
 - But they do not have stronger givenness effects:
 - Spray reduces givenness ($\beta = -.51$ SE = .23 P < .05)
 - Stuff increases it (β = .47 SE= .25 P <.1)

Comprehension Experiment: Results

- Overall, locations more affected in location-first than substance-first (β = 5.63 SE = 0.63 P < .001)
- Locations more affected in ceiling control sentences than location-first *spray-load* forms (β = -5.97 SE = 0.96 P < .001)





Mean rating for "How affected is the location?" **Left**: By condition, overall; **Right**: By condition + verb

