

Now you see it, now you don't: Visual cues modulate short versus long passive production

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1. Introduction

- **Speakers can describe an event using a variety of syntactic structures:**
 - **Active:** The pilot cooked the green beans.
 - **Long Passive:** The green beans were cooked by the pilot.
 - **Short Passive:** The green beans were cooked.
- **Structural choice determined** by discourse status^[1], perceptual/conceptual salience^[2], structural accessibility (e.g. priming)^[3], focus/topicalization^[4], semantic similarity^[5], verb type^[6], speaker intent^[7], sociolinguistic factors^[8], etc.
- **Not all structures equally frequent in spontaneous speech:**
 - Actives more frequent than passives generally^[9]
 - **Long passives extremely rare**^[10]
 - Yet, experimental work on passives largely focuses on production of long passives & results often report high proportion of long passives relative to spontaneous speech.

----- A Case Study -----

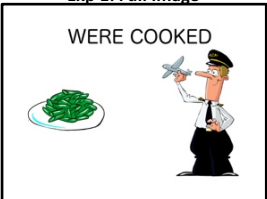

- **Messenger et al. (2010):** Do short and long passives share an abstract underlying structure?^[11]
- Some evidence that **structure is not shared**
 - Semantic representations for long vs short passives differ^[12]
 - Children process short and long passives differently^[13]
- **Messenger et al. (2010) provide evidence to the contrary** using syntactic priming
 - Participants heard active or short passive primes, then described agent-patient images
 - If long and short passives share syntactic representations, speakers should produce **more long passives after short passive primes** than after active primes
 - **They found:**
 - (1) More long passives after short passive than after active primes → Shared representation
 - (2) **Adults produced no short passives** (even though all primes were short passives)
- **Open Question:** Could other factors have driven the production of the agentive by-phrase in long passives?
 - All of target images explicitly depicted *both* an agent and patient character
 - Production of long passives could be driven by task-based **bias to mention all characters in the image**

2. Current Study

- (1) To what extent can a task-based mention-all bias account for high proportion of long passives in lab-based elicitation tasks relative to spontaneous speech?
- (2) To what extent do short and long passives differ in their syntactic representations?

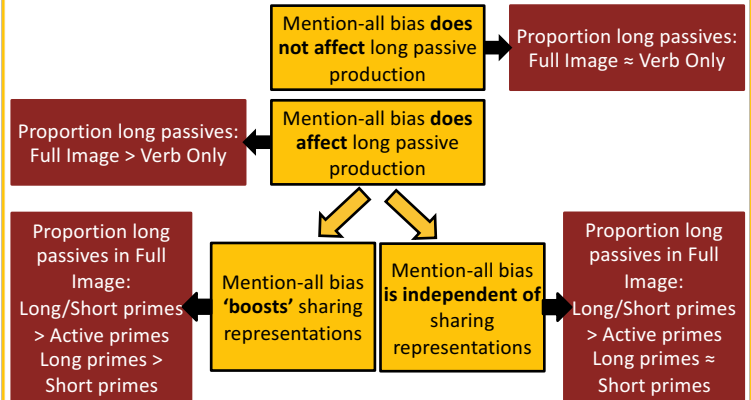
3. Experiment Design

- **2 Image Types (between) x 3 Prime Types (within):**
 - **Exp 1: Full Image** (n=32): Animate Agent + Inanimate Patient + Verb Phrase
 - **Exp 2: Verb Only Image** (n=36): Verb Phrase Only

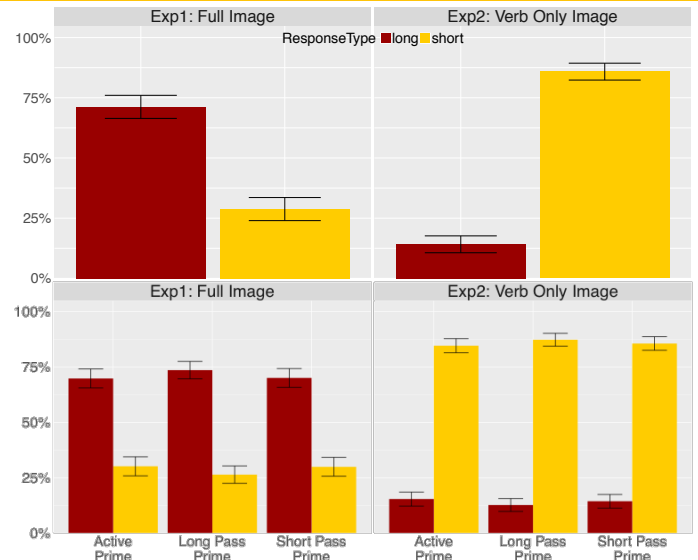
Prime Type	Active	Short Passive	Long Passive
Sample Primes	The philosopher jammed the door.	The door was jammed.	The door was jammed by the philosopher.
Sample Target Images	Exp 1: Full Image		Exp 2: Verb Only Image
	 <p>WERE COOKED</p>		 <p>WERE COOKED</p>
	Target: The green beans were cooked (by the pilot).		

- All given verbs produced 'actional', not 'adjectival' passives^[14]
- **Task:** Native English speakers (1) Read & retyped prime sentence (2) Wrote a sentence based on elements in target image
- **Measured:** Proportion of long vs short passives produced

4. Hypotheses & Predictions



5. Results: Proportion of Responses



- **Evidence for mention-all bias:** Significantly more long passives in Full Image study, but more short passives in Verb Only study; $|z| = 6.238$.
- **Mention-all bias does not vary by prime type:** Proportion of long passives in Full Image study (Exp1) does not differ across primes; $|z| < 1.1$.

8. Discussion & Conclusion

- **Perceptual/Conceptual accessibility may outrank structural accessibility in speaker's choice of structure:**
 - When agent explicitly available (Full Image), speakers strongly prefer long passives despite added "effort" required to mention agent
 - When no agent available (Verb Only), even increasing the accessibility of the by-phrase structure in long passives (e.g. through structural priming) doesn't encourage agent generation/mention
 - **Open Question:** Volitional versus non-volitional agents (e.g. 'It rained really bad last night. The lab was flooded (by the storm/rain/water being built up)').
- **Some shared structure between long and short passives:** Short passives still lead to more passivization (Messenger et al., 2010), but structural representation of by-phrase remains open question
 - How are implicit, 'unpronounced' arguments syntactically represented?
- **Methodological Implications:** Increased production of long passives in lab-based settings could be artefact of experimental design (e.g. type of image used)
 - In line with work showing visual salience effects on structural choice can be task-dependent^[15]

References

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