

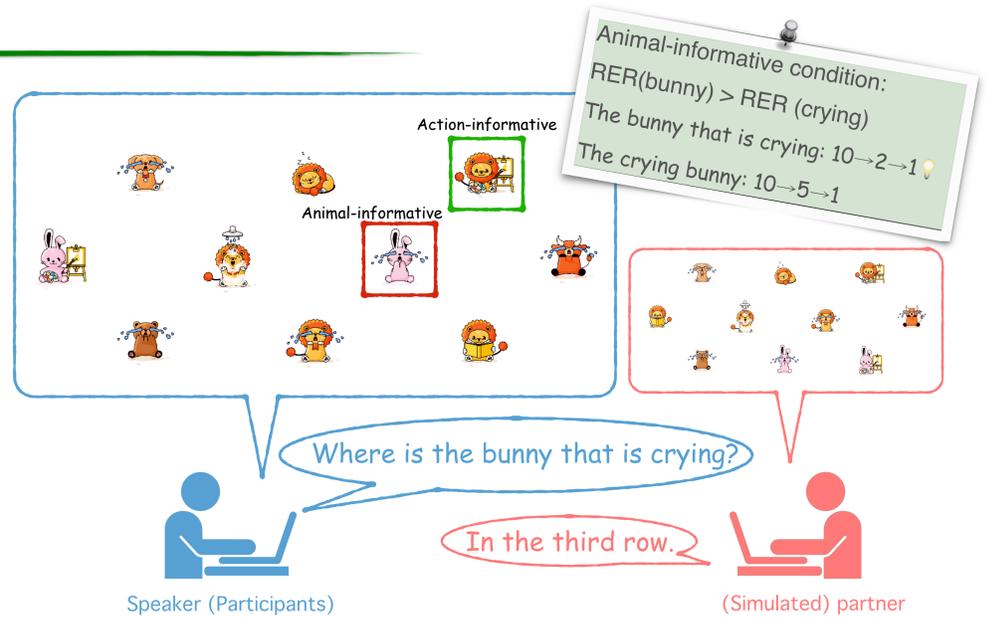
INTRODUCTION

What influences how we order information in our utterances?

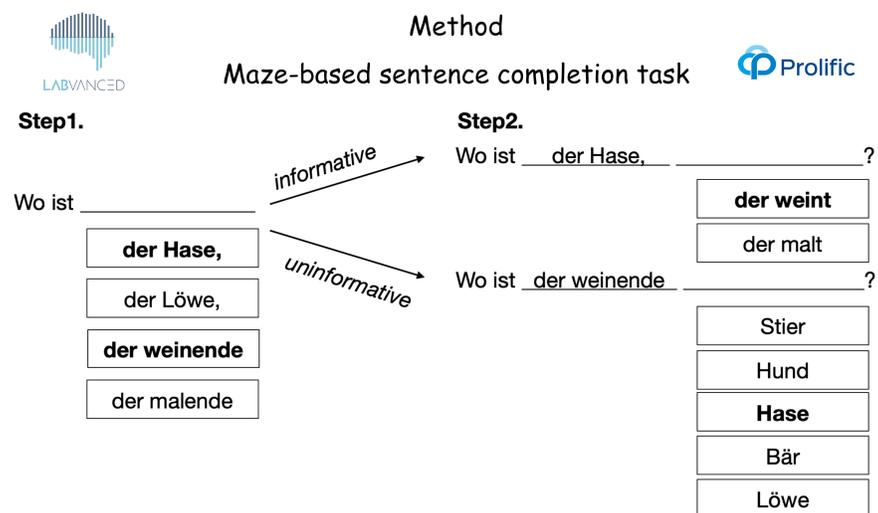
- ◆ Structural preferences [1]
- ◆ Referential informativity \propto Referential Entropy Reduction (RER)
 - Level of uncertainty reduced in identifying the intended referent [2]
 - Higher RER \rightarrow smaller referential scope \rightarrow more informative
- ◆ Other factors, e.g., visual salience, priming, etc. [3,4]

Does informativity modulate linearization preferences?

1. Does RER affect linearization at all?
2. If so, which ordering is preferred?
 - Maximal informativity hypothesis: high informative first [5,6,7]



EXPERIMENTS



Online communication game

- ◆ Stimuli: animals performing actions (flexible ordering in German)
- ◆ Conditions: Animal-informative vs. Action-informative

Experiment 1: Speaker maze task

- ◆ 80 subjects, 24 critical trials + 24 fillers

Experiment 2: Listener task + Speaker maze task (in two blocks)

- ◆ Perspective changing \rightarrow more informative? [8]
- ◆ 160 subjects, 12 critical speaker trials + 12 fillers

Experiment 3: Listener task + Speaker maze task (in turn by trial)

- ◆ More interactive \rightarrow more informative?
- ◆ 80 subjects, 24 critical speaker trials + 12 fillers

CONCLUSIONS

Does informativity modulate linearization preferences in reference production?

- ◆ No, many participants used a fixed syntactic structure.
- ◆ Yes, the remaining participants produced varied syntactic structures, reflecting a maximal informativity strategy: the more informative property is more likely to be encoded first.
- ◆ If the setup is more interactive, more participants can vary their syntactic encodings.

RESULTS

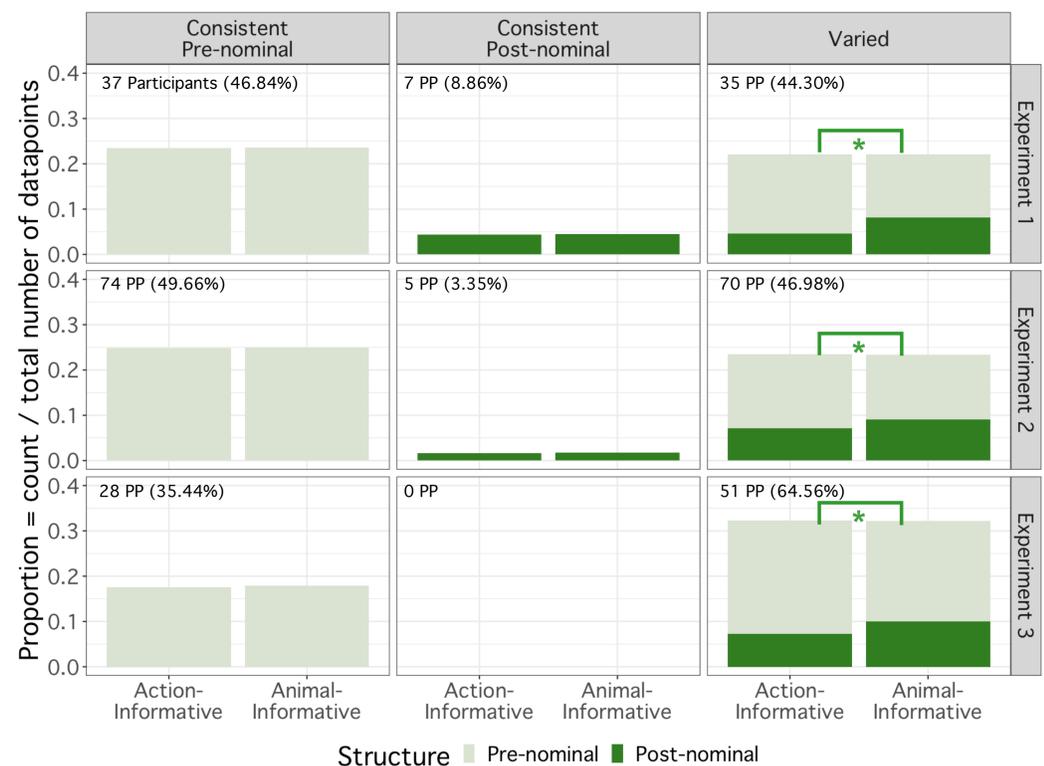
Three groups of subjects:

- ◆ Consistent Pre-nominal
- ◆ Consistent Post-nominal
- ◆ Varied

Logistic mixed effect regression:

Structure $\sim 1 + \text{Condition} + (1 + \text{Cond} \mid \text{Subject}) + (1 + \text{Cond} \mid \text{Item})$

With a more interactive setup in Exp3, more subjects belong to Group *Varied*.



What's next?

- ◆ In-lab free production experiments with a real confederate
- ◆ Group difference & individual difference?
 - Some speculations:
 - Attention intensity [9]
 - Visual perception capacity [10]
 - Sensitivity to priming (linguistic knowledge and experiences; non-verbal reasoning skills) [11]
 - Perspective changing skills (working memory; inhibition control) [12]

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