Focus reveals how people (variably) update event representations to novel material
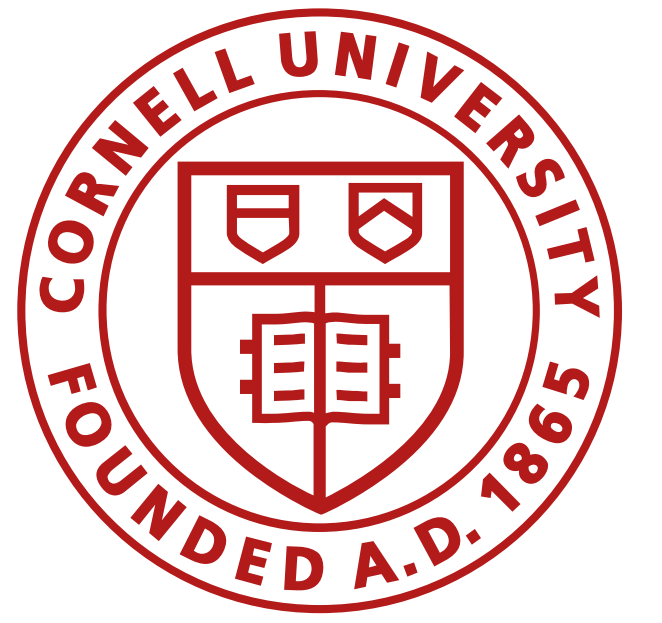
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HSP 2025

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INTRODUCTION

- ❖ People build and track incremental event representations [1, 2, 3, 4, 5] on *who* can do *what*.
- ❖ In everyday interaction, *new referents* and *unlikely events* arise all the time.

RESEARCH QUESTION

How do people accommodate new information into their event representations?
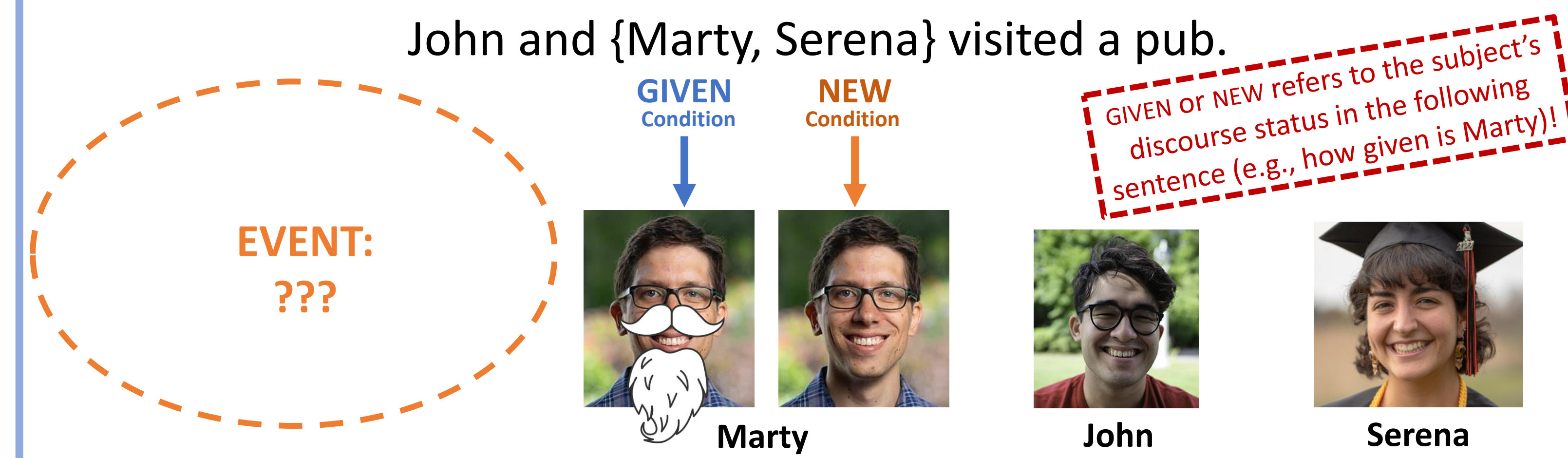
APPROACH

- ❖ Linguistic focus invokes comparison to a set of relevant alternatives [6, 7].
- ❖ Comparison to the alternative set may transfer some event structure.
- ❖ In a series of Maze tasks [8], participants read two-sentence discourses where:
  - ❖ referents varied in GIVENNESS
  - ❖ events varied in LIKELIHOOD
  - ❖ focus was placed on different words

REFERENCES

[1] Altmann & Mirković (2009); *Cognitive Science*.
[2] Zacks et al. (2007); *Psychological Bulletin*.
[3] McCrae et al. (2005); *Memory & Cognition*.
[4] Ferretti et al. (2001); *Journal of Memory and Language*.
[5] Altmann & Kamide (2009); *Cognition*.
[6] Rooth (1992); *Natural Language Semantics*.
[7] Hoeks et al. (2023); *Journal of Memory and Language*.
[8] Forster et al. (2009); *Behavior Research Methods*.

THE SET-UP

John and {Marty, Serena} visited a pub.

GIVEN Condition   NEW Condition

EVENT: ???

Marty   John   Serena

GIVEN or NEW refers to the subject's discourse status in the following sentence (e.g., how given is Marty)!

EXPERIMENT 1: SUBJECT FOCUS

The regulars were surprised that only *Marty* {drank, worked} at the bar.
LIKELY   UNLIKELY
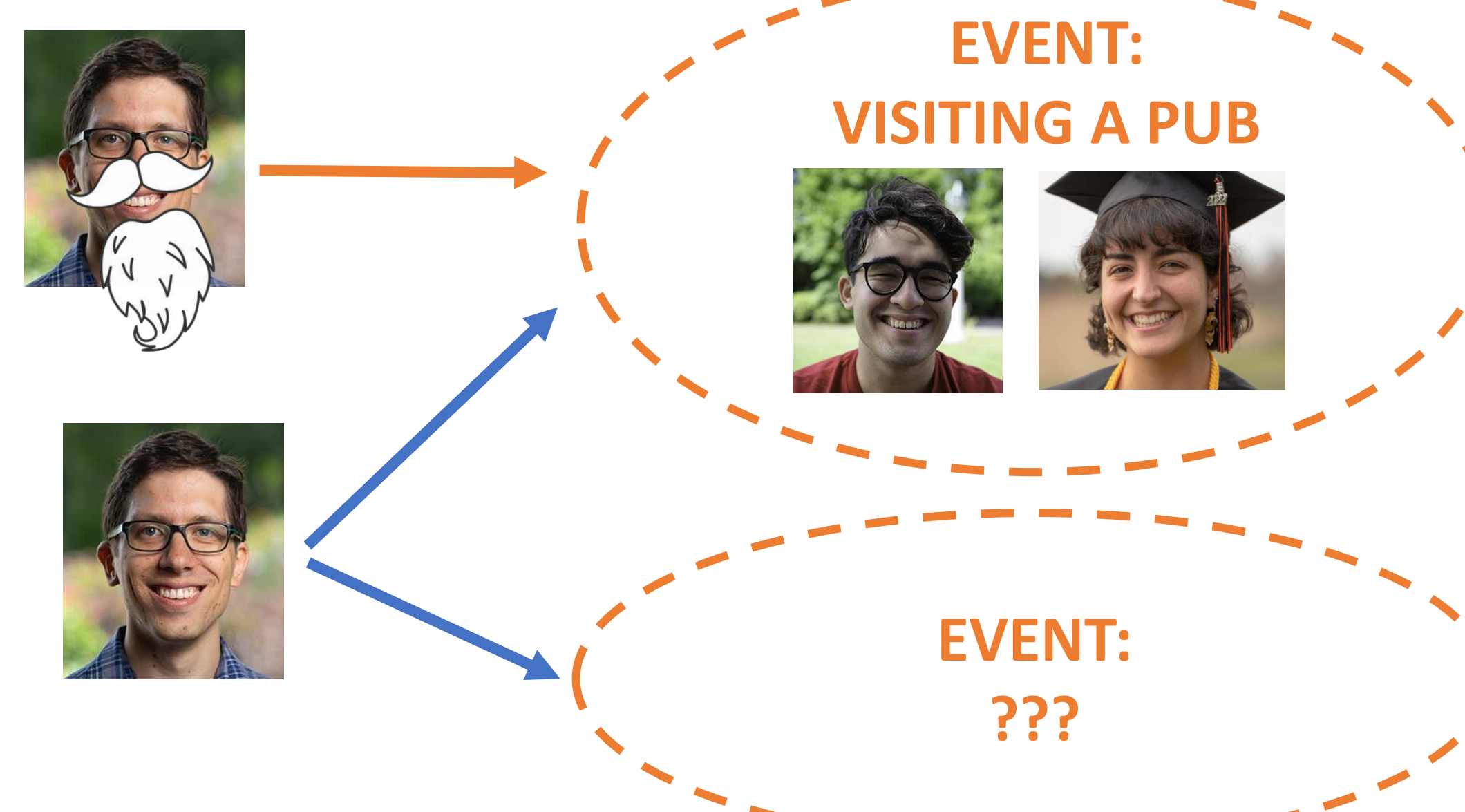
FOCUS COMPARISON

EVENT: VISITING A PUB

EVENT: ???

Prediction: Due to focus comparison, Marty will be limited to known event roles, regardless of his GIVENNESS.

EXPERIMENT 2: VERB FOCUS

The regulars were surprised that Marty only {drank, worked} at the bar.
LIKELY   UNLIKELY

EVENT: VISITING A PUB

EVENT: ???

Predictions: If GIVEN, Marty should be limited to known event roles.

If NEW, Marty should have a wider set of possible actions.
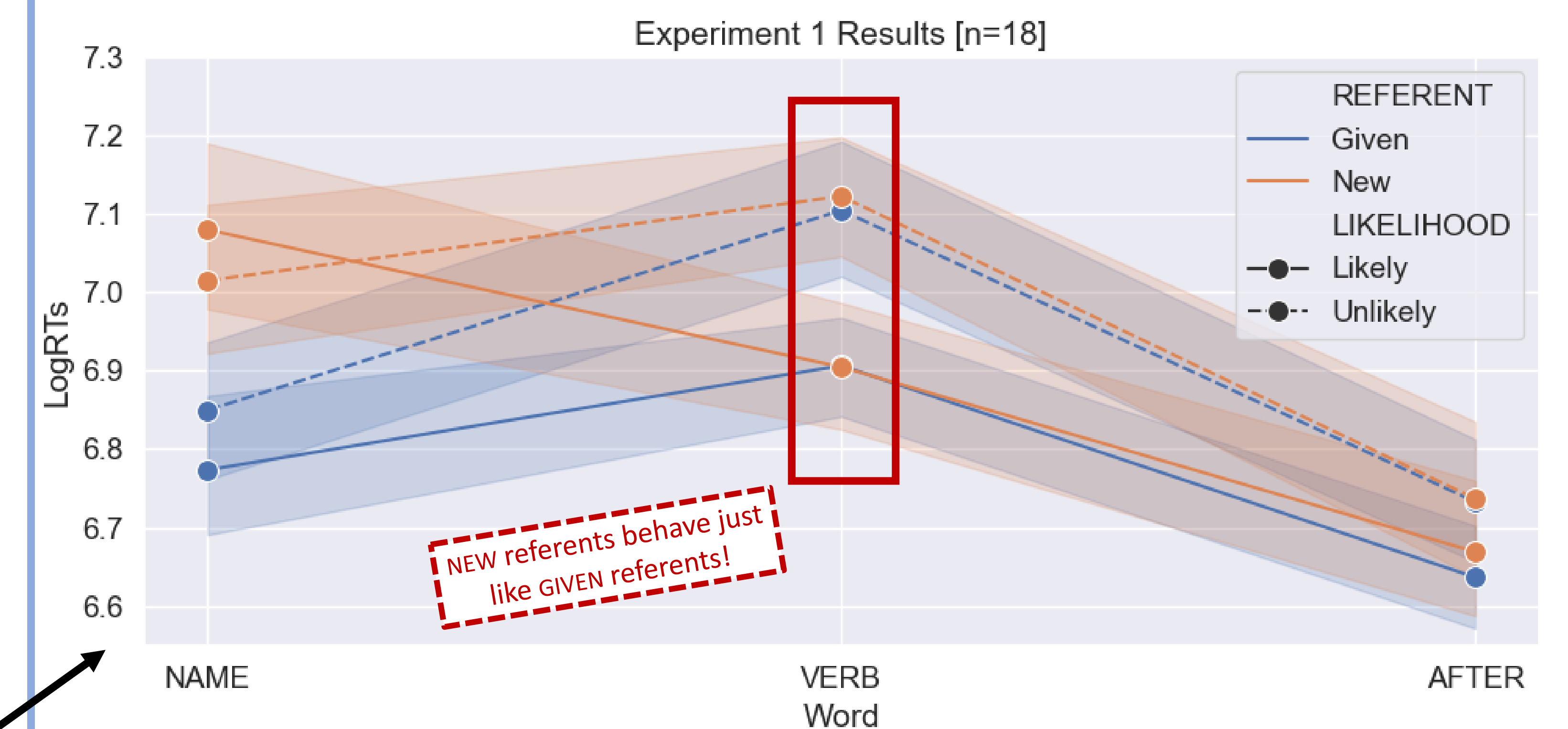

EXPERIMENT 1 RESULTS

Experiment 1 Results [n=18]

REFERENT: Given, New
LIKELIHOOD: Likely, Unlikely

(y-axis: LogRTs — 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3)
(x-axis: Word — NAME, VERB, AFTER)

NEW referents behave just like GIVEN referents!

Figure 1: LogRTs for referent and likelihood by position (Exp1). Bars indicate 95% confidence intervals.

EXPERIMENT 2 RESULTS

Experiment 2 Results [n=34]

REFERENT: Given, New
LIKELIHOOD: Likely, Unlikely

(y-axis: LogRTs — 6.6, 6.7, 6.8, 6.9, 7.0, 7.1, 7.2, 7.3)
(x-axis: Word — NAME, ONLY, VERB, AFTER)

NEW referents are processed faster in UNLIKELY events, but just as fast in LIKELY events.
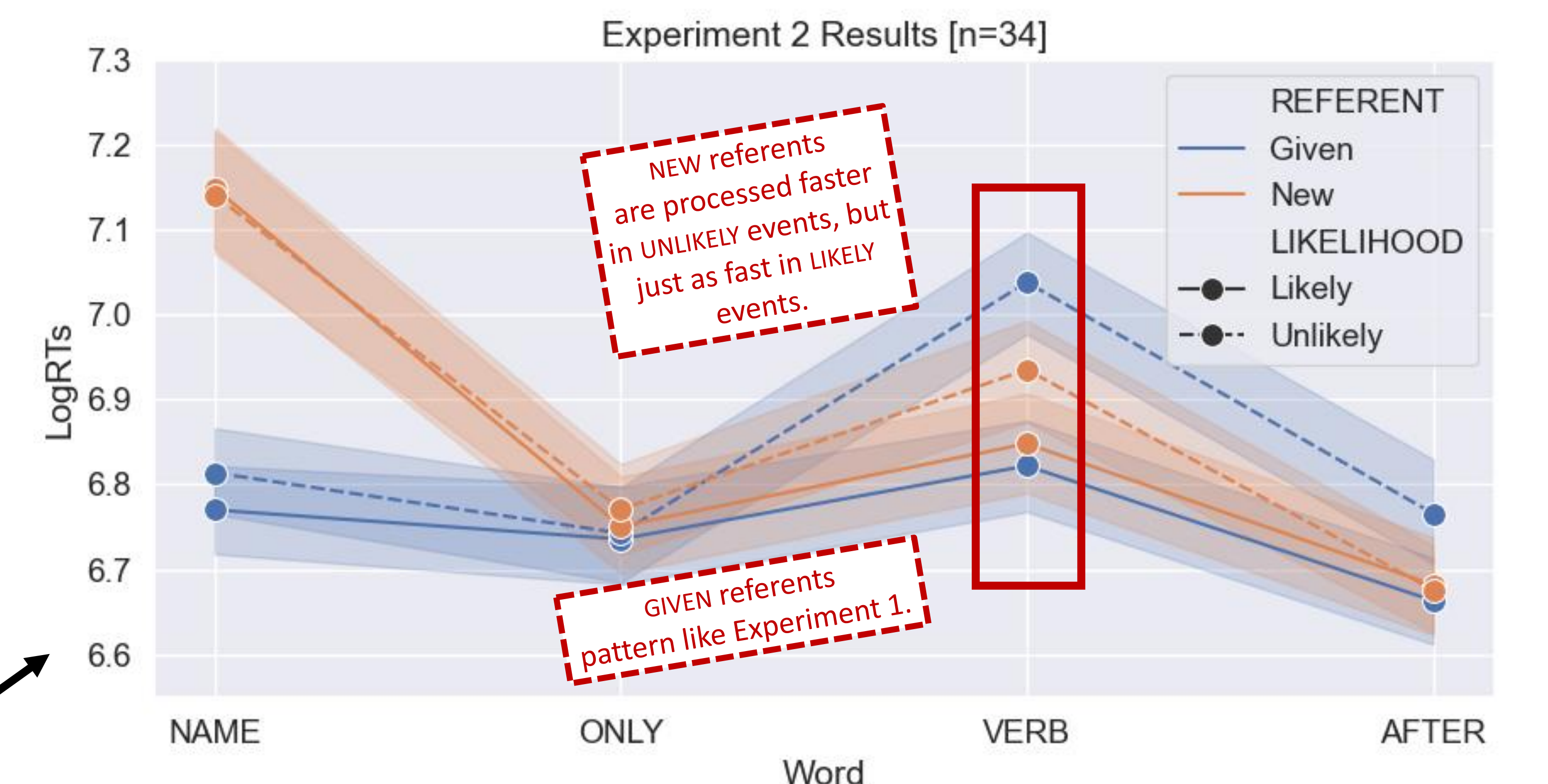
GIVEN referents pattern like Experiment 1.

Figure 2: LogRTs for referent and likelihood by position (Exp2). Bars indicate 95% confidence intervals.

CONCLUSIONS

1. Linguistic focus implicitly transfers event structure.
2. Focused nouns are constrained to known event roles.
3. Unfocused novel nouns are not.