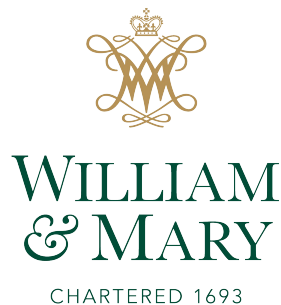# What is the representational target of island satiation effects?

Nicholas Wright[1], Jiayi Lu[2], Judith Degen[2]

[1]William & Mary, [2]Stanford University

Syntactic Satiation Effects

Certain island-violating sentences become more acceptable with exposure:

Whether islands

What does Jack wonder whether Mary spilled?

Subject islands

What does Jack think that a bottle of was spilled by Mary?

Snyder (2000), Chaves & Dery (2019), Lu et al. (2021)

Research Question

Proposed accounts of satiation:

- Memory Bottleneck (Francom, 2009; Hofmeister & Sag, 2010)
- Priming (Francom, 2009; Do & Kaiser, 2017)
- Syntactic adaptation (Lu et al., 2021)

In any case,

What is the linguistic representation targeted by satiation effects?

Hypotheses

Island **type-specific** representations
  - i.e. specific types of island-violating constructions

What does Jack wonder [**whether** Mary spilled]?

What does Jack think that [**a bottle of** was spilled] by Mary?

Prediction: **no generalization** between island types

i.e, exposure to *whether* islands will **not** raise the acceptability of subject islands.

Hypotheses

Island **type-general** representations
- e.g. filler-gap dependencies, island violation in general, degradedness

What does Jack wonder whether Mary spilled __?

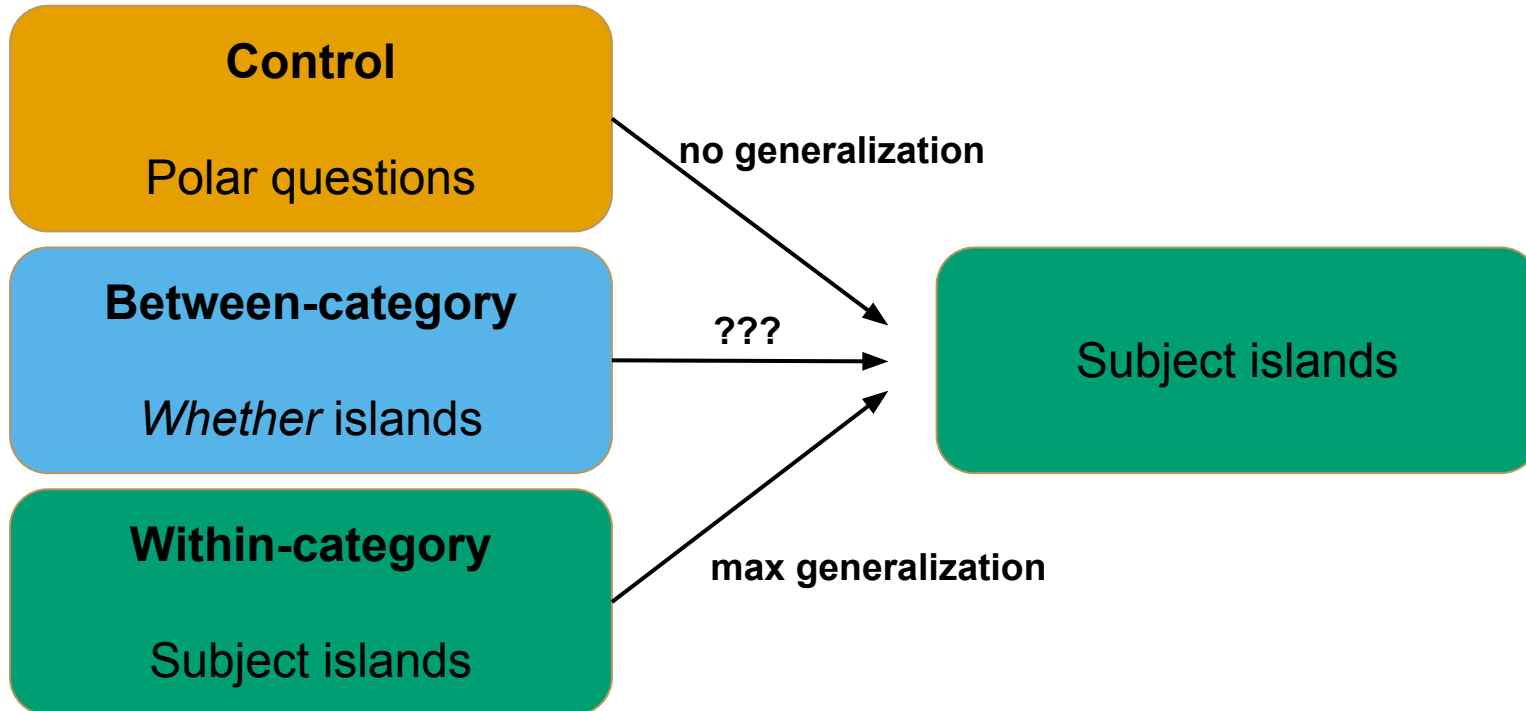What does Jack think that a bottle of __ was spilled by Mary?

Prediction: **generalization** between island types
i.e, exposure to *whether* islands will raise the acceptability of subject islands.
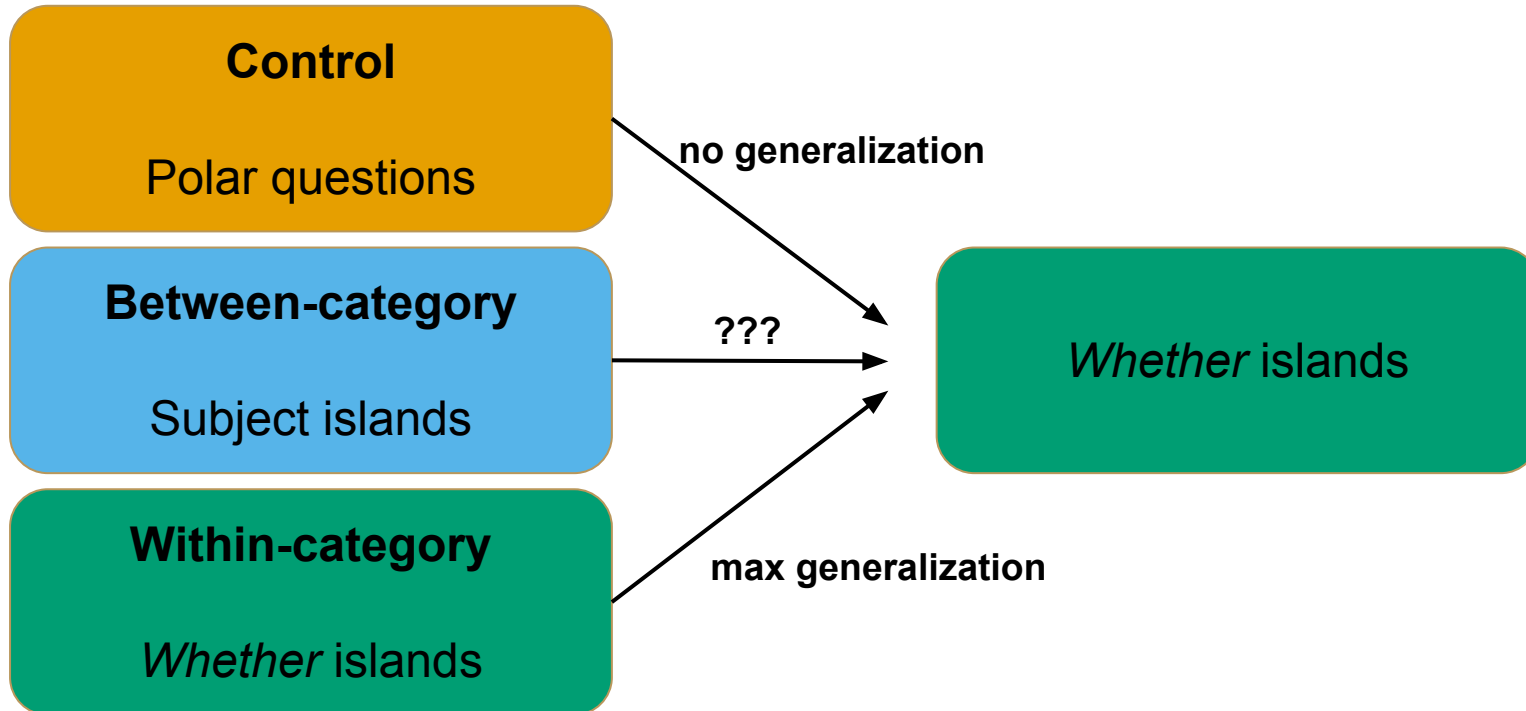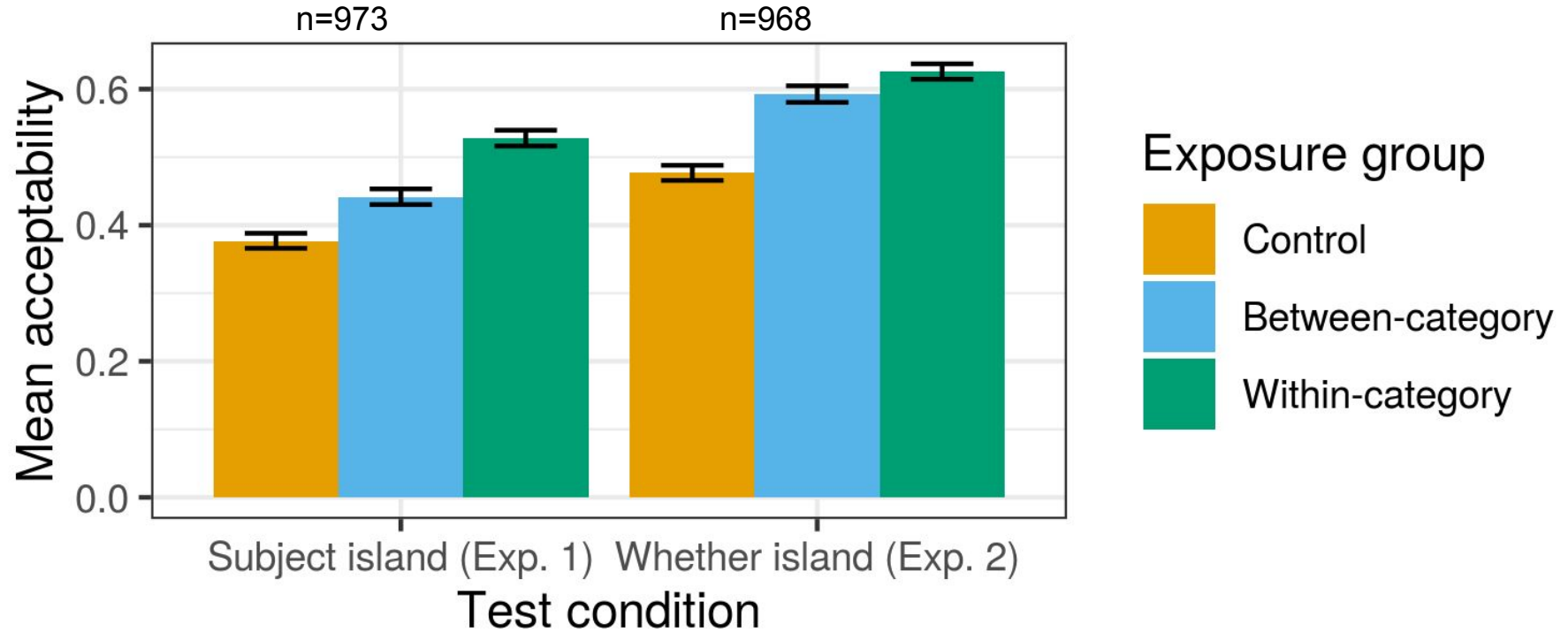
Design: Exp 1

Exposure phase

Test phase

Control

Polar questions

Between-category

Whether islands

Within-category

Subject islands

no generalization

???

max generalization

Subject islands

Design: Exp 2

Exposure phase

Test phase

Control

Polar questions

Between-category

Subject islands

Within-category

Whether islands

no generalization

???

max generalization

Whether islands

Results

n=973   n=968
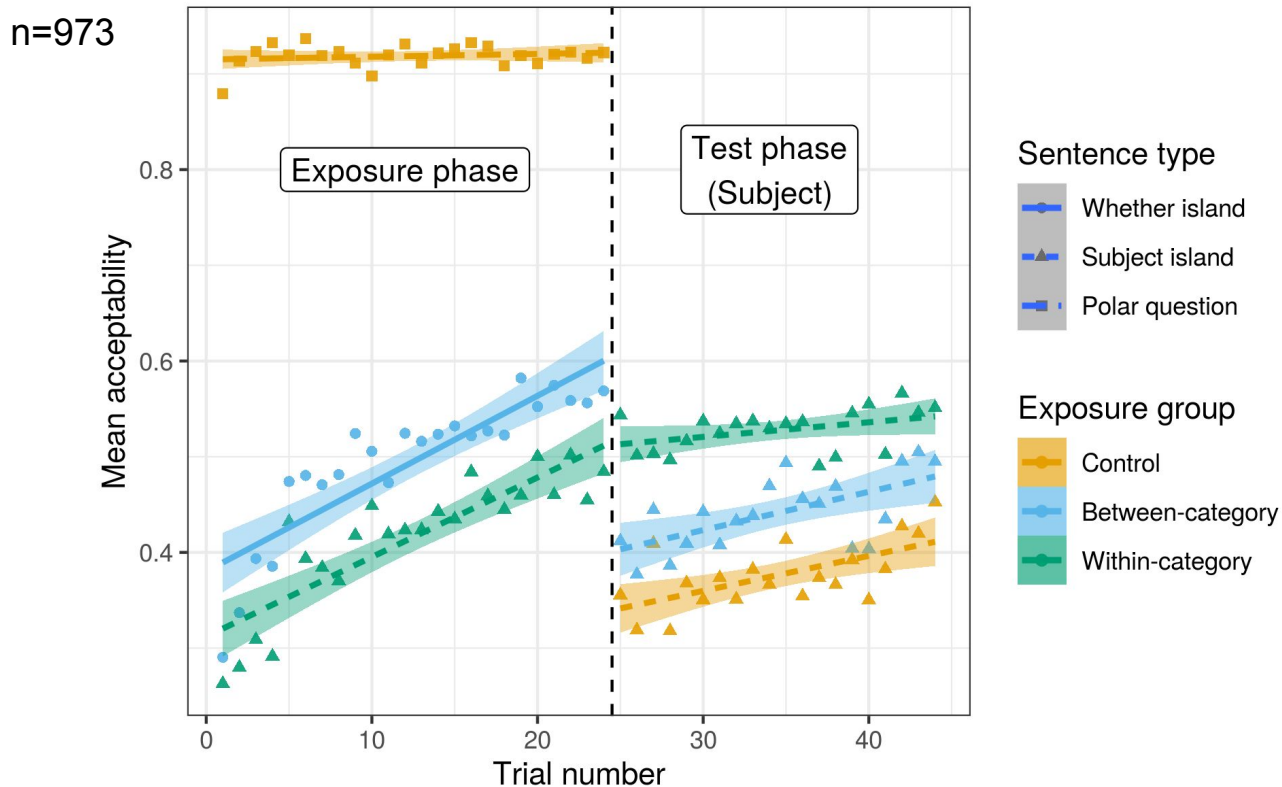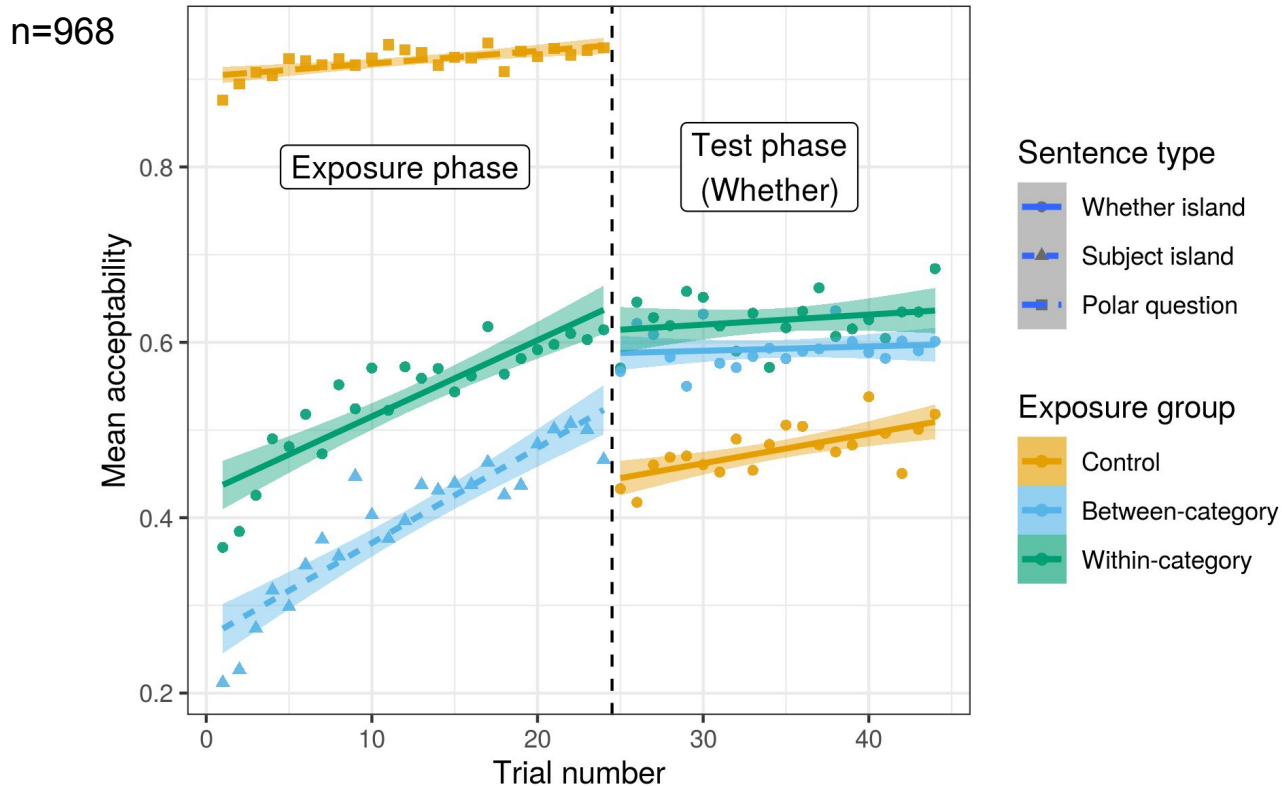
Results: Experiment 1

Results: Experiment 2

n=968

Discussion

Satiation effects **generalize** between subject and *whether* islands.

Between-category generalization effects are **smaller** than within-category satiation effects.

A **syntactic adaptation** account is helpful here (Lu et al., 2021):
- Comprehenders track information in the linguistic signal and update beliefs about the occurrence probability of linguistic forms.

Comprehenders track both island **type-specific** and **type-general** information during satiation.

Lu et al. (2021), Kleinschmidt et al. (2012), Fine et al. (2013)

Discussion

Comprehenders track both island **type-specific** and **type-general** information during satiation.

Possible type-general information:

- Island violation in general
- Filler-gap dependencies
- Overall degraded acceptability

Thank you!