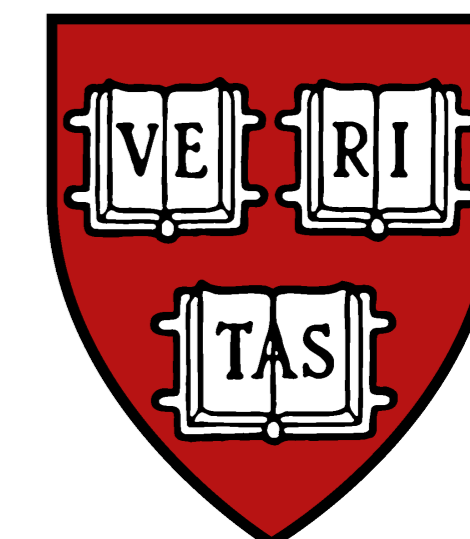


# Countability Distinctions without Linguistic Cues

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## Background on Quantity Judgments (Barner & Snedeker 2005)

### Who has more NOUN?

Count Nouns - *Apple* →  Cardinality Judgment

Aggregate Nouns - *Furniture* →  Volume Judgment

Mass nouns - *Ketchup* →  Volume Judgment

## Quantity Judgments as a diagnostic for noun semantics?

- Barner & Snedeker (2005): Yes

Count Nouns - *Apple* → Atomic

Aggregate Nouns - *Furniture* → Non-Atomic

Mass nouns - *Ketchup* → Non-Atomic

⇒ But not all languages show this pattern (Yudja, Lima 2014)!

**Research Goal:** To investigate the role played by morphosyntactic cues to atomicity in quantity judgment tasks.

### Why?

Nez Perce (Deal 2017)

Who has more PL-good milk? vs. Who has more good milk?  
Cardinality Judgment vs. Volume Judgment

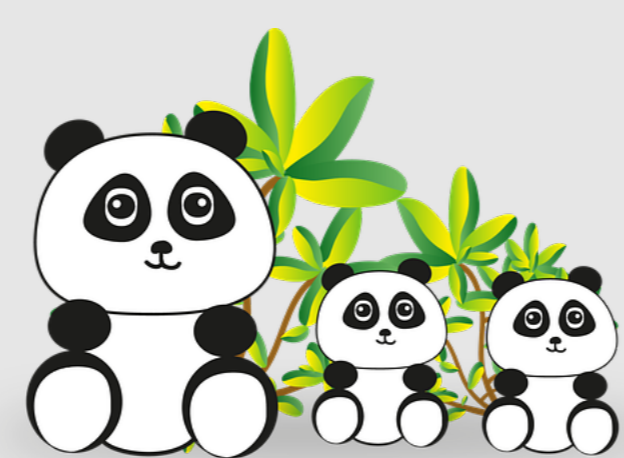
Who has more? (Scontras et al. 2017)

Count Nouns → More Volume Judgments  
Mass Nouns → More Cardinality Judgments

**Why French?** The morphosyntactic cues to atomicity are not always perceptible in the auditory signal.

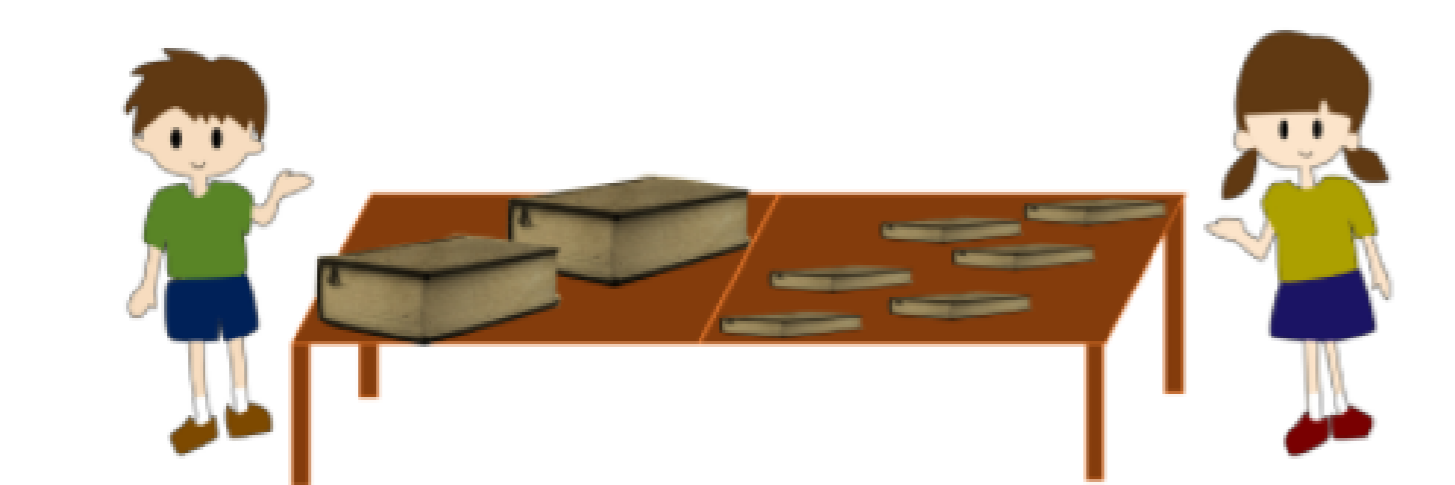
panda<sub>SG</sub> pandas<sub>PL</sub>

[pāda]



## Experiment 1 (n=90; 40 items, 10 fillers)

**Goal:** To extend Scontras & al. (2017) to every type of English nouns and to set a baseline for Experiment 2 in French.



The boy      The girl

Do you have any comments?

Who has more books? vs. Who has more?  
NOUN NO NOUN

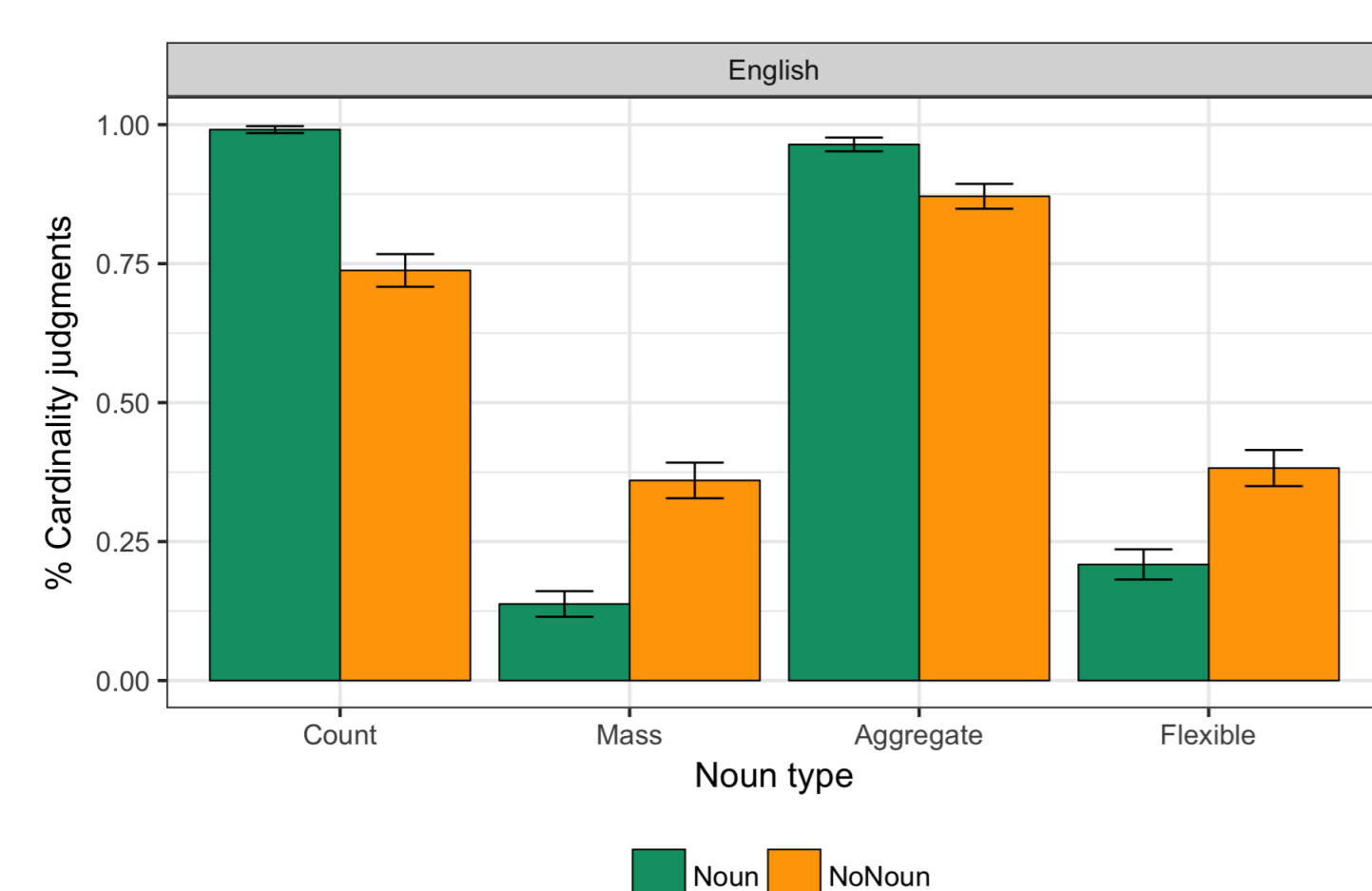


Fig. 1: Rate of Cardinality Judgments per Noun Type in English

Behavior less categorical in NO NOUN Condition (consistent with Scontras et al. 2017)

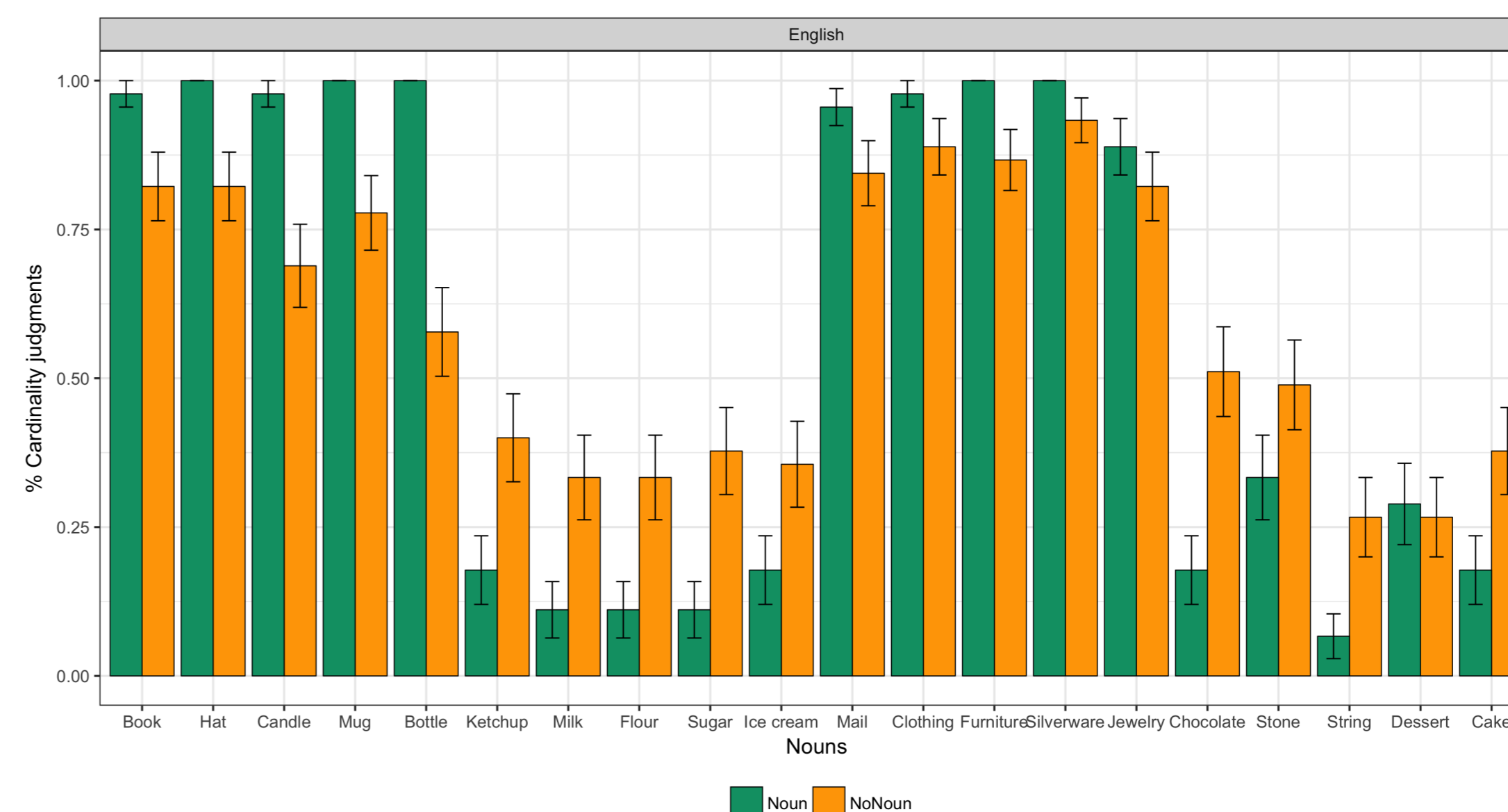


Fig. 2: Rate of Cardinality Judgments per Noun in English

## Experiment 2 (n=61; 40 items, 10 fillers)

**Goal:** To investigate the role played by morphosyntactic cues to atomicity in French.

### Do cues to atomicity affect quantity judgments?

- YES → French ≈ English
- NO → French ≠ English

Regarde, il y a **des** livres sur la table. Qui en a le plus? CUES  
'Look, there are some books on the table. Who has more?'

vs.

Regarde ce qu'il y a sur la table. Qui a le plus de **livres**? NO CUES  
'Look what is on the table. Who has more books?'

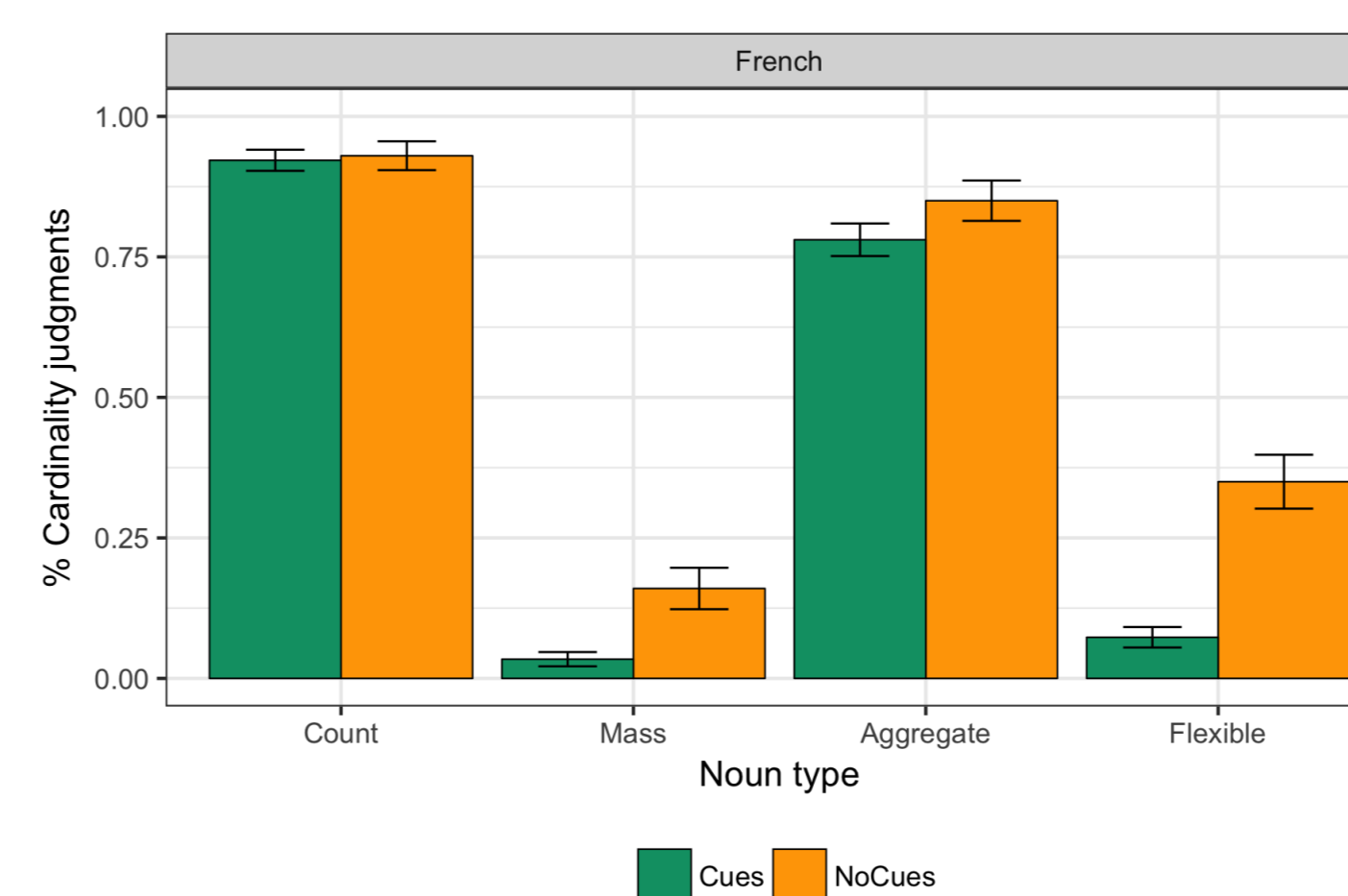


Fig. 3: Rate of Cardinality Judgments per Noun Type in French

Morphosyntactic cues to atomicity do not influence quantity judgments in French.

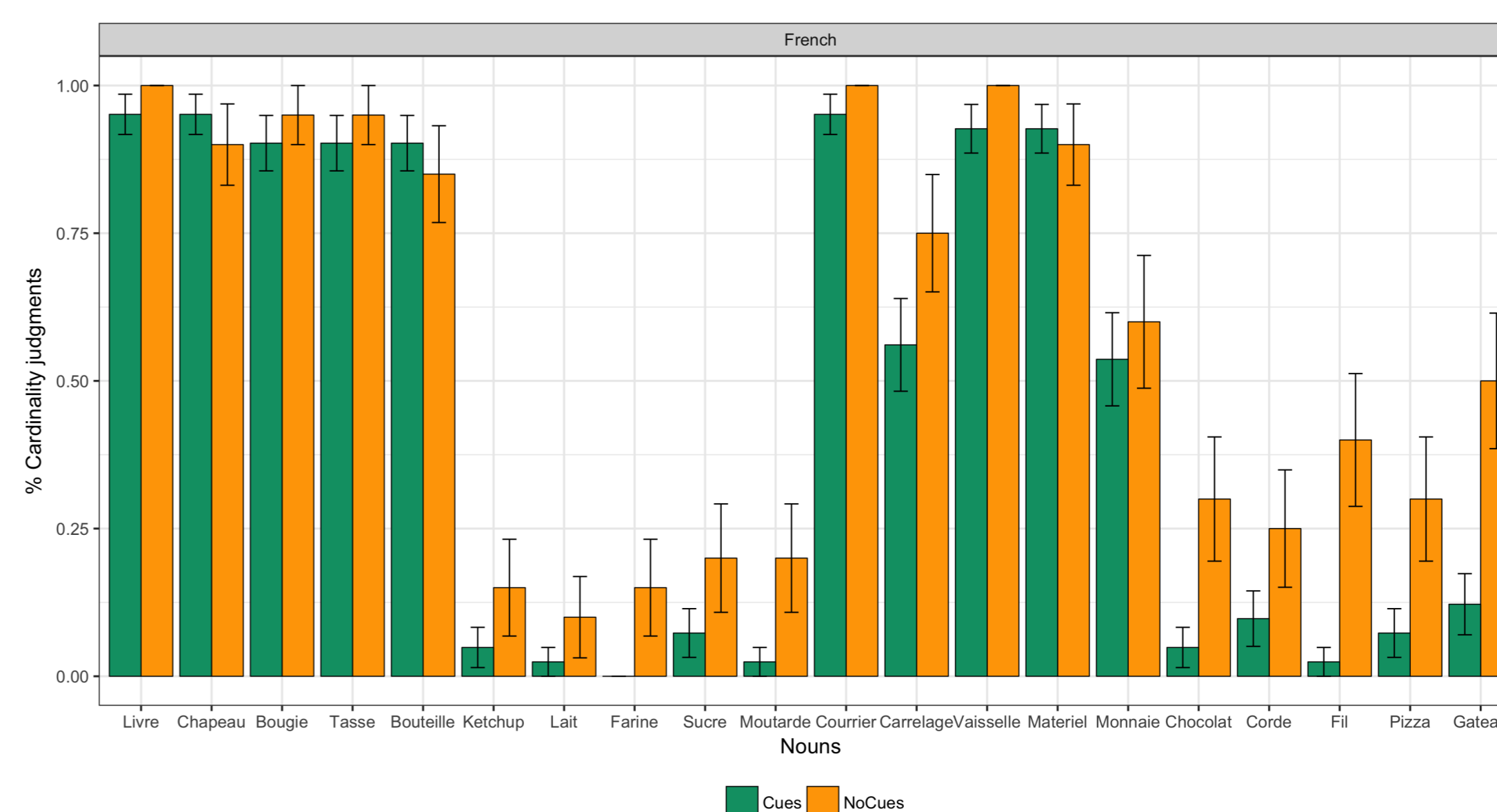


Fig. 4: Rate of Cardinality Judgments per Noun in French

- *Who has more?* The absence of nouns plays a role in English (Exp. 1) and in French.

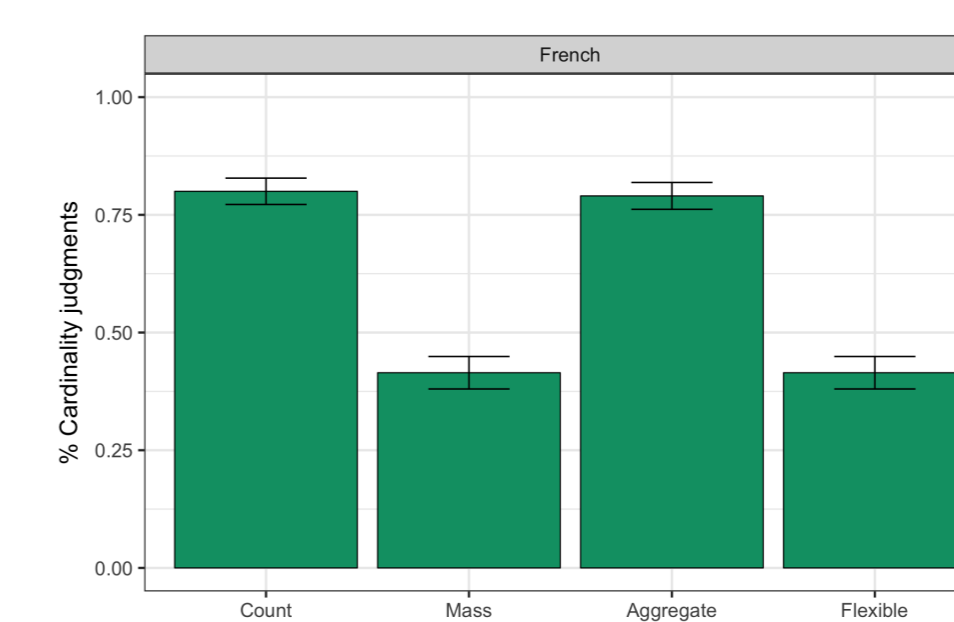


Fig. 5: Rate of Cardinality Judgments per Noun Type in French

- Removing experimentally the cues to atomicity didn't affect quantity judgments.
- *Who has more?* judgments were influenced by the availability of salient portions and alternative dimensions of measurement (consistent with Scontras et al. 2017).

References: **Barner & Snedeker 2005**. Quantity judgments and individuation: Evidence that mass nouns count. *Cognition* 97. **Deal 2017** Countability distinctions and semantic variation. *Natural Language Semantics* 25. **Lima 2014**. The grammar of individuation and counting. *Syntax and Semantics* 33. **Scontras, Davidson, Deal & Murray 2017**. Who has more? The influence of linguistic form on quantity judgments. UMass Amherst dissertation.

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