

# Ad hoc implicatures in definites and indefinites: Evidence for a local implicature account

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**Main finding:** The uniqueness presupposition of ‘the’ triggers local implicatures, leading to more ad hoc implicatures for definite noun phrases compared to indefinites.

## 1 Background

- **Definites** and **indefinites** are distinguished by what they imply about uniqueness:<sup>[1,2]</sup>

- (1) Mary bought **the** striped sweater.  
→ *There is a single striped sweater*
- (2) Mary bought **a** striped sweater.  
→ *There is more than one striped sweater*

- **Asymmetry:** In contexts where there is one sweater with only stripes, and one with stripes and spots, (1) seems less felicitous than (2).

Figure 1: Critical 2-striped sweater context



- This asymmetry is unexpected if ad hoc implicatures<sup>[3]</sup> are only generated globally: in Fig.1, (1) and (2) have the contextual alternatives in (3) and (4), respectively – negating them yields the same inference: *Mary didn't buy a sweater that was both striped and spotted.*

- (3) Mary bought the striped and spotted sweater.
- (4) Mary bought a striped and spotted sweater.

- How to account for the asymmetry?

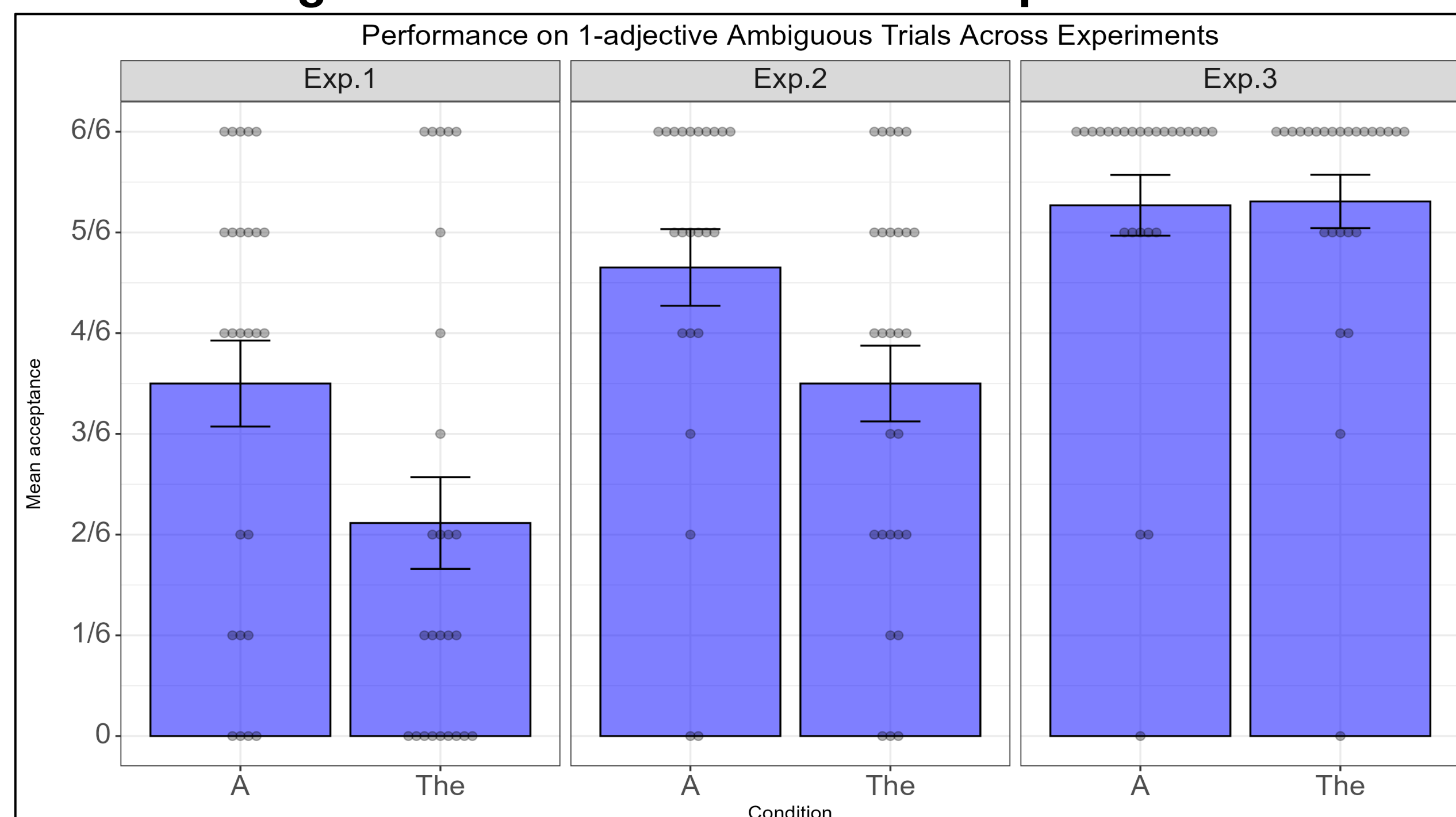
### Anti-presupposition account:

- “A” carries an anti-presupposition that its complement is not a singleton – which is not satisfied for the alternative in (4).
- This could block implicatures in (2), since there is a conflict between satisfying the anti-presupposition and generating an implicature to disambiguate the referent.

### Local implicature account:

- “The” carries a uniqueness presupposition, which is not satisfied in the unenriched interpretation of (1).
- This could trigger a local implicature within the DP:<sup>[4]</sup> “the striped sweater” is interpreted to mean “the striped sweater without spots”.

Figure 4: Results across three experiments



## 3 Concluding remarks

- Ad hoc implicatures are more likely to be generated for sentences containing “the” than for sentences containing “a”.
- This is not due to a competing anti-presupposition blocking implicatures with “a”.
- The difference can be explained by the definite article triggering an embedded implicature.
- **Open questions:**
  - Why is the overall implicature rate lower in Exp.2 and Exp.3?
  - Would increasing the saliency of the second property lead to more implicatures generally?
  - Could the indefinite involve a different QUD than the definite?

## 2 Three experiments: Common features

- **Task:** Truth Value Judgement Tasks<sup>[5]</sup> with English-speaking adults
- **Scenario:** Characters shopping for everyday items, depicted as in Fig.1 (a basket under an item indicated that item was purchased)
- **Critical target trials:** Images always contained:
  - One ‘plain’ item
  - One item with one salient property (e.g., “striped”)
  - At least one item with two salient properties (e.g., “striped and spotted”)
- **Critical trial descriptions:** Participants saw videos of a puppet describing what was bought using a definite (“the”) or indefinite (“a”) description (determiner type was a between-subject variable).
- **Fillers and controls:** Corresponded to unambiguous true/false 1- and 2-adjective controls, and true/false adjective-less fillers.
- **Responses:** Participants clicked ‘Yes’/‘No’ to indicate agreement/disagreement with the puppet’s statement.

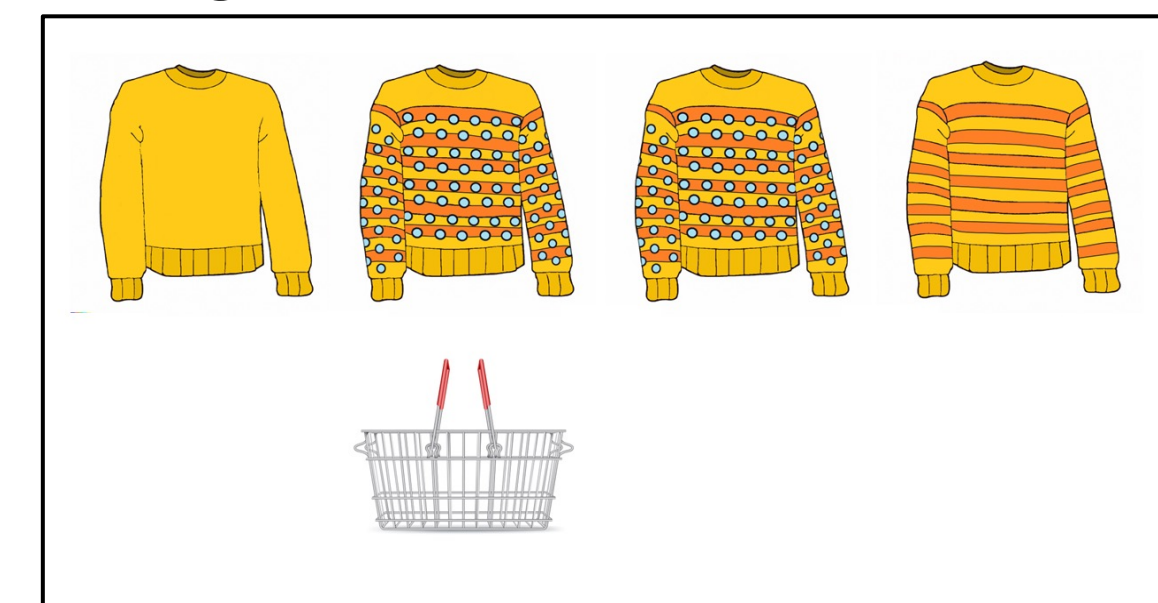
### 2a Experiment 1

- **Critical trials:** As in Fig.1, paired with sentences such as (1) and (2).
- **Participants:** 60 participants recruited via Prolific, 53 analysed (“A”  $n=27$ ; “The”  $n=26$ ; failed controls=7)
- **Results (Fig.4):** On critical trials, “the” was accepted less than “a” (35% vs. 59%,  $\chi^2(1)=4.3$ ,  $p<.05$ ).
  - Greater rejection of “the” not due to presupposition failure: for true 1-adjective controls, “the” was accepted 98% of the time.
  - Exp.1 confirms that (1) is less acceptable than (2), with more ad hoc implicatures generated for the definite than the indefinite.

### 2b Experiment 2

- If anti-presupposition failure of (4) drove the asymmetry in Exp.1, satisfying the anti-presupposition should eliminate the difference.
- **Critical trials:** Presented 4 items, with an additional 2-property item (e.g., striped and spotted) to satisfy the anti-presupposition.

Figure 2: Critical context

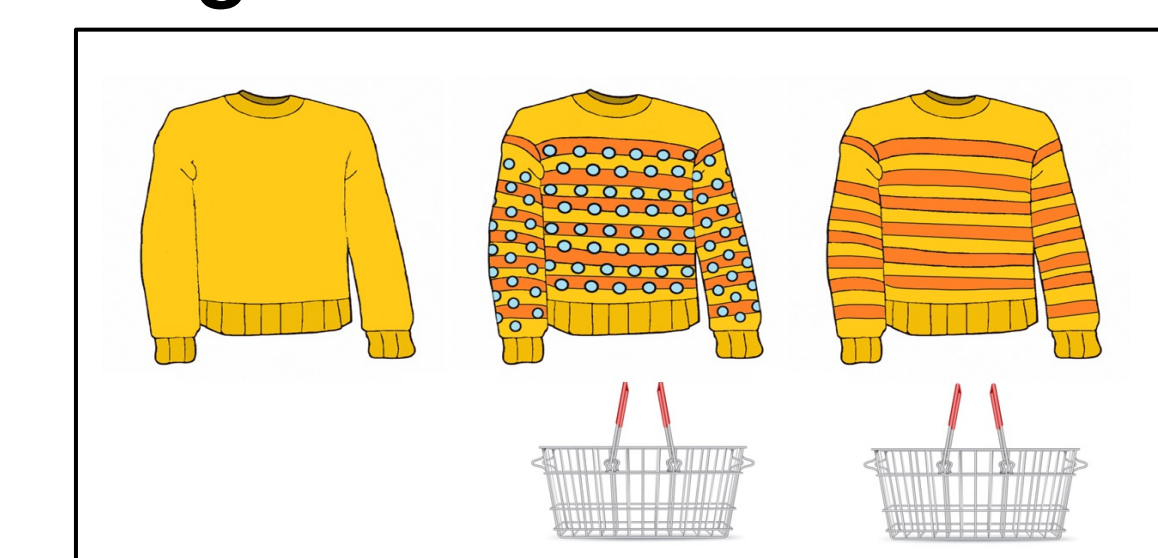


- **Participants:** 66 participants recruited via Prolific, 52 analysed (“A”  $n=23$ ; “The”  $n=29$ ; failed controls=12, non-English speakers=2)
- **Results (Fig.4):** “The” was again less acceptable than “a” (59% vs. 78%,  $\chi^2(1)=5.13$ ,  $p<.05$ ).
  - Exp.2 suggests the anti-presupposition failure is not blocking ad hoc implicatures with “a” in (2).

### 2c Experiment 3

- If a local implicature drove asymmetry in Exp.1, making the local implicature interpretation true should eliminate the difference.
- **Critical trials:** Presented 3 items, with both the 1-property (e.g. striped) and 2-property (e.g. striped and spotted) items purchased in the critical trials – making the local implicature reading true (*Mary bought the striped sweater without spots*).

Figure 3: Critical context



- **Participants:** 60 participants recruited via Prolific, 52 analysed (“A”  $n=26$ ; “The”  $n=26$ ; failed controls=8)
- **Results:** No difference between acceptance of “the” and “a” (both 88%,  $\chi^2(1)=.02$ ,  $p=.98$ ).