

Pragmatic Inferences in Definite and Indefinite Contexts

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Introduction

Speakers use **definite determiners** (e.g., *the*) to refer to specific, unique, or established discourse referents and **indefinite determiners** (e.g., *a/an*) to refer to non-specific or introduce new referents

Children have a foundational understanding of determiners and use them appropriately in many situations as young as 2.5-years-old (De Cat, 2009; 2011)

However, **children have difficulty inferring the intended referents of indefinite determiners** (van Hout, Harrigan, & de Villiers, 2010)

e.g., understanding that *Give me the ball* requests a specific ball, while *Give me a ball* requests any ball from a larger set

What about adults?

It's assumed adults are **capable of inferring the correct referent of indefinites** and do so readily

This is in part because adults reason pragmatically about other scalar contrasts, e.g., *some vs all* (Huang & Snedeker, 2009; Noveck, 2001)

However, there is **little experimental data to support this**, and the previous work that does include adults is mixed, with some suggesting adults do make these inferences (e.g., Schaeffer &

Matthewson, 2005) and others suggesting no (e.g., Maratsos, 1974; 1976)

Present Study

Our approach:

Present a set of novel objects (3 “non-unique” items and 1 “unique” item) and request participant give us an item using either indefinite or definite determiner

Predictions:

- 1) If adults can infer referents of indefinites**, they will pick a non-unique item when request is made with indefinite
- 2) If adults cannot**, they will either select the unique item or select items at chance in indefinite context
- 3) Adults will be able to interpret definites** and will select the unique item when request used the definite

Method

Participants

Study 1: 123 mTurkers Study 2: 44 mTurkers
Study 3: 55 mTurkers Study 4: 72 mTurkers

Stimuli

Novel objects and names taken from Novel Objects and Unusual Name (NOUN) database (Horst & Hout, in press)

Sample set of novel items



Non-unique items

Unique item

Conditions

Definite versus indefinite:

Give me *the/a* toma.

Study 1: between-subjects

Study 2 - 4: within-subjects

Word extension (WE) versus mutual exclusivity (ME):

Character requests an item (e.g., toma)

WE: Asked to pick same item kind that was requested (e.g., which one is a toma?)

ME: Asked to pick different item kind than was requested (e.g., which one is a blap?)

Study 4 only: between-subjects

Variations in tasks

Study 3

[Indefinites are also used to introduce new items into discourse regardless of uniqueness. Introduced items prior to request to remove this interpretation]



“There are two types of objects here, tomas and blaps.”

“I want the/a toma. Can you click on the/a toma.”



Study 1

“Click on the/a toma”



Study 2

[Changed wording to make it clearer an intentional agent was making the request]

“There are two objects here, but I want the/a toma. Click on the/a toma.”



Study 4

[Adapted methodology from Karmiloff-Smith (1979) to provide clearer environment for pragmatic inference. Also added WE versus ME conditions (see “Conditions”)]

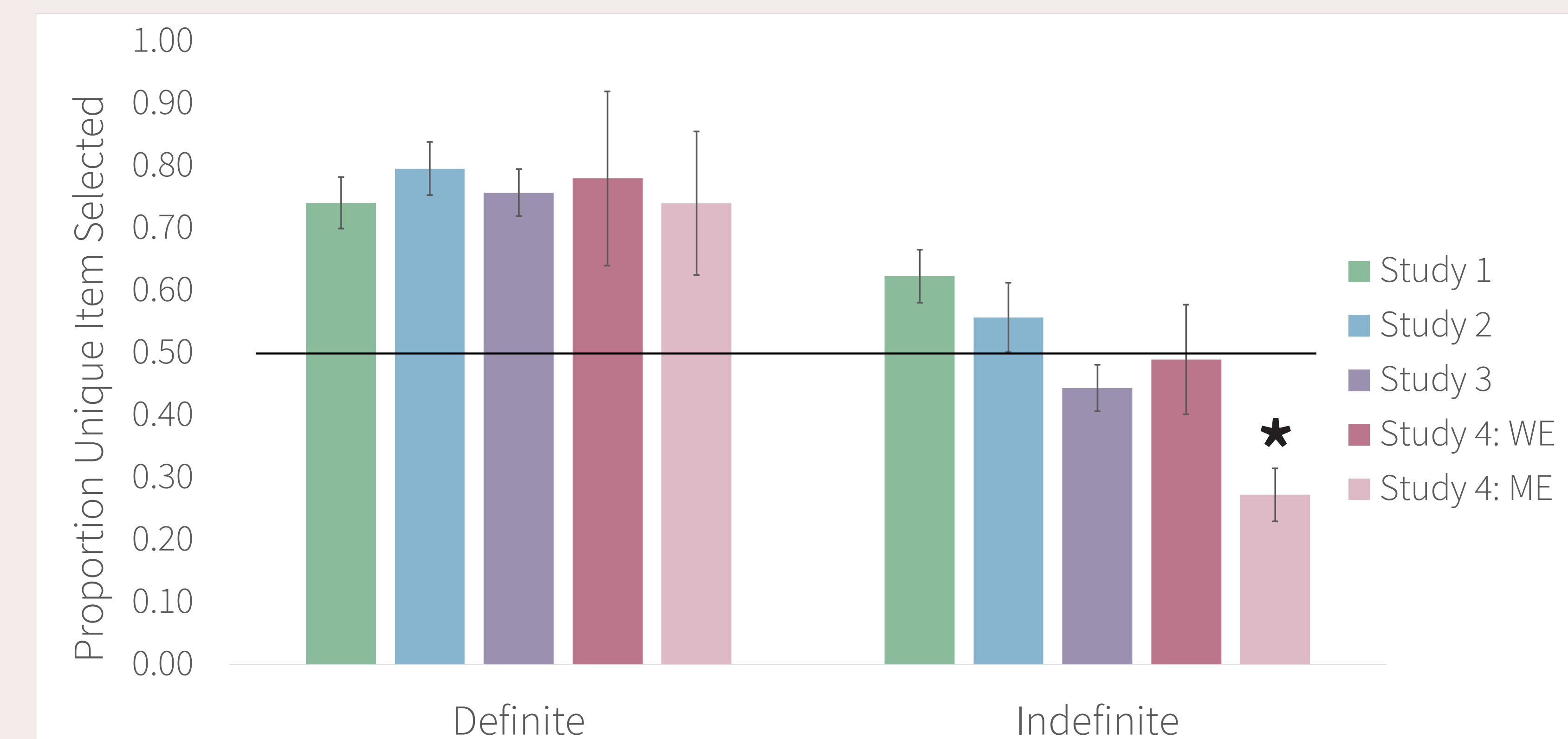
Participants introduced to a boy and a girl playing. Novel objects introduced in bag as in Study 3.

A teacher asks, “Can you give me the/a toma?” Participants are told to think carefully about whether the teacher is talking to the boy or to the girl, and what a toma is.

“Okay, so now you know what a toma is. Here are two more toys. Which one do you think is a toma/blap?”



Results



Study 1: No pragmatic inference

- Unique item selected above chance in both definite and indefinite context
- Unique item selected significantly more in definite context ($t(110) = 1.99, p = .049$)

Study 2: No pragmatic inference

- Unique item selected above chance in definite context
- Non-unique items selected at chance in indefinite context

Study 3: No pragmatic inference

- Unique selected above chance in definite
- Non-unique items selected at chance in indefinite context but marginally less so than in Study 2 ($p = .08$)

Study 4: Inference in ME condition only

- Unique item selected more in definite context, $F(53) = 2.34, p = .031$
- Non-unique selected below chance in ME, at chance in WE, $F(53) = 2.34, p = .031$

Discussion

- 1) Adults consistently selected the unique object in definite contexts** across all four studies
- 2) They generally did not infer the intended referent of an indefinite** as reflected by their failure to select non-unique items in most indefinite contexts
- 3) Adults made the correct inference in the indefinite context only when 1) explicitly encouraged to reason about the intended referent and 2) when the speaker's choice of determiner is highlighted by contrasting options**

Takeaway point:

Failures to make inferences about definiteness do not necessarily reflect pragmatic incompetence. Adults are prone to error, too.