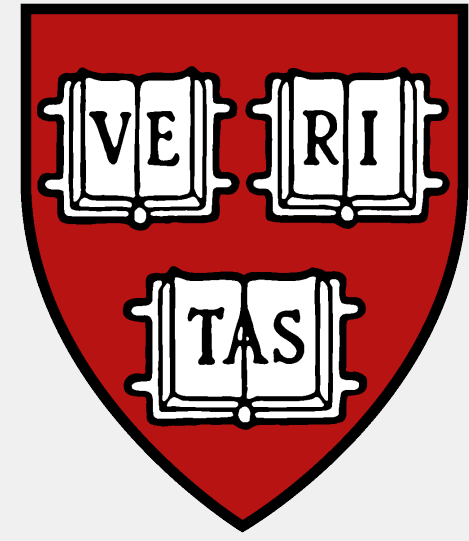


Distinctions in anaphoricity: German strong definites vs. demonstratives

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Our Study

- **Prior theoretical works:** Trend towards assimilating the meaning of demonstratives in general to that of definites (Roberts 2002, Wolter 2006).
- **Open issue:** The distinction and distribution of demonstratives vs. strong definites in German has been under debate.
- **Prior experimental works:** Focused on the contrast between the weak and the strong definite article in German (Schwarz 2022, Schwarz et al. 2023) **vs. our study:** (i) investigates the contrasting behavior of German strong definites vs. demonstratives (ii) builds on recent cross-linguistic findings of differences in their acceptability across anaphoric contexts.

Motivation

Schwarz (2009)

- German has distinct strong (non-contracting) and weak (contracting) definite articles, with the strong used in anaphoric contexts and the weak in cases of uniqueness.
- Weak/strong distinction supported in controlled experimental data in Schwarz 2022.
- The felicitous use of strong **definites** with deixis in homogeneous predicates (Löbner 1985), as in (1), (as well as their use in anaphoric contexts) are properties that they share with **demonstratives**.
- In fact, Heim 1991 refers to cases of what Schwarz calls strong definites as involving demonstratives.

- (1) Hans ist in {DEM/ diesem} → Auto gekommen, nicht in {DEM/ diesem} → Auto
Hans is in {the_{strong}/ that} car come not in {the_{strong}/ that} car
'Hans came in this car, not in this car (pointing at two different cars).'
(Schwarz 2009: 54)

Rauth & Speyer (2021)

- Rauth & Speyer 2021 argue that, in colloquial German, the only difference between **definites** (2) and **demonstrative** determiners is emphatic stress in demonstrative contexts (3).
 - (2) Kannst du die Frau sehen?
Can you DET woman see
'Can you see the woman?'
 - (3) Kannst du DIE Frau sehen?
Can you DEM woman see
'Can you see this woman?'
- This is in line with Schwarz's claim that the uses of the strong **definite** that we see in (1) typically involve a pitch accent on the determiner.

Is the German strong article simply a demonstrative, perhaps differing merely in focal stress?

Background: Anaphoric demonstratives crosslinguistically

Saha (2023) & Saha, Sağ, & Davidson (2023): The acceptability of **anaphoric demonstratives** (Roberts 2002, Wolter 2006, Nowak 2014, Ahn & Davidson 2018, Ahn 2019) is sensitive to focus alternative-sensitive aspects of context unlike **definites**:

- **Demonstratives** are sensitive to the (i) presence of a contrasting common noun in the context sentence, i.e., the number of NPs (**one vs. two**), (ii) situation (**same vs. new**).
⇒ significantly more acceptable in (i) new situations (consistent with Dayal & Jiang 2022), and in (ii) One NP contexts (where there is no other contrasting common noun property). [Fig. 2 (English, Turkish, Bangla)]
- Experimental data supports this across a variety of languages: one with determiners (**English**) and two determinerless languages encoding definiteness differently: **Turkish** via bare nouns, **Bangla** via noun-classifier constructions

Critical Manipulation

Saha (2023) and Saha et al.'s (2023) design:

- (4) {[*OneNP* A boy]/ [*TwoNP* A boy and a girl]} entered the classroom. **Context**
a. **The/That** boy sat down in the front row. **(Same Situation)**
b. I had noticed **the/that** boy at a coffee shop yesterday. **(New Situation)**

The German design:

- (5) {[*1NP* Ein Junge]/ [*2NP* Ein Junge und ein Mädchen]} betrat das Klassenzimmer.
a boy a boy and a girl entered the classroom
'A boy/ A boy and a girl entered the classroom.' **Context Situation**
a. **Der/Dieser** Junge setzte sich in die erste Reihe.
The/That boy sat RFLX in the front row.
'**The/That** boy sat down in the front row.' **(Same Situation)**
b. Gestern hatte ich **den/diesen** Jungen in einem Café bemerkt.
Yesterday had I **the/that** boy at a coffee.shop noticed.
'I had noticed **the/that** boy at a coffee shop yesterday.' **(New Situation)**

- New situations introduced both a **new event participant** (Dayal & Jiang 2022) and a **temporal change** (Bremmers et al. 2022).

Methods

- Latin Square 2x2x2 design crossing NP (**1 vs. 2**) and situation (**new vs. same**) across 12 scenarios (balanced for animacy of target NPs)
- Total 64 German participants (recruited via Prolific Academic platform)

Ein Junge und ein Mädchen betraten das Klassenzimmer.

Gestern hatte ich diesen Jungen in einem Café bemerkt.

Am wenigsten natürlich

Am natürlichsten

Gestern hatte ich den Jungen in einem Café bemerkt.

Am wenigsten natürlich

Am natürlichsten

Figure 1: Screenshot of German experiment in 2 NP New Situation condition

Results

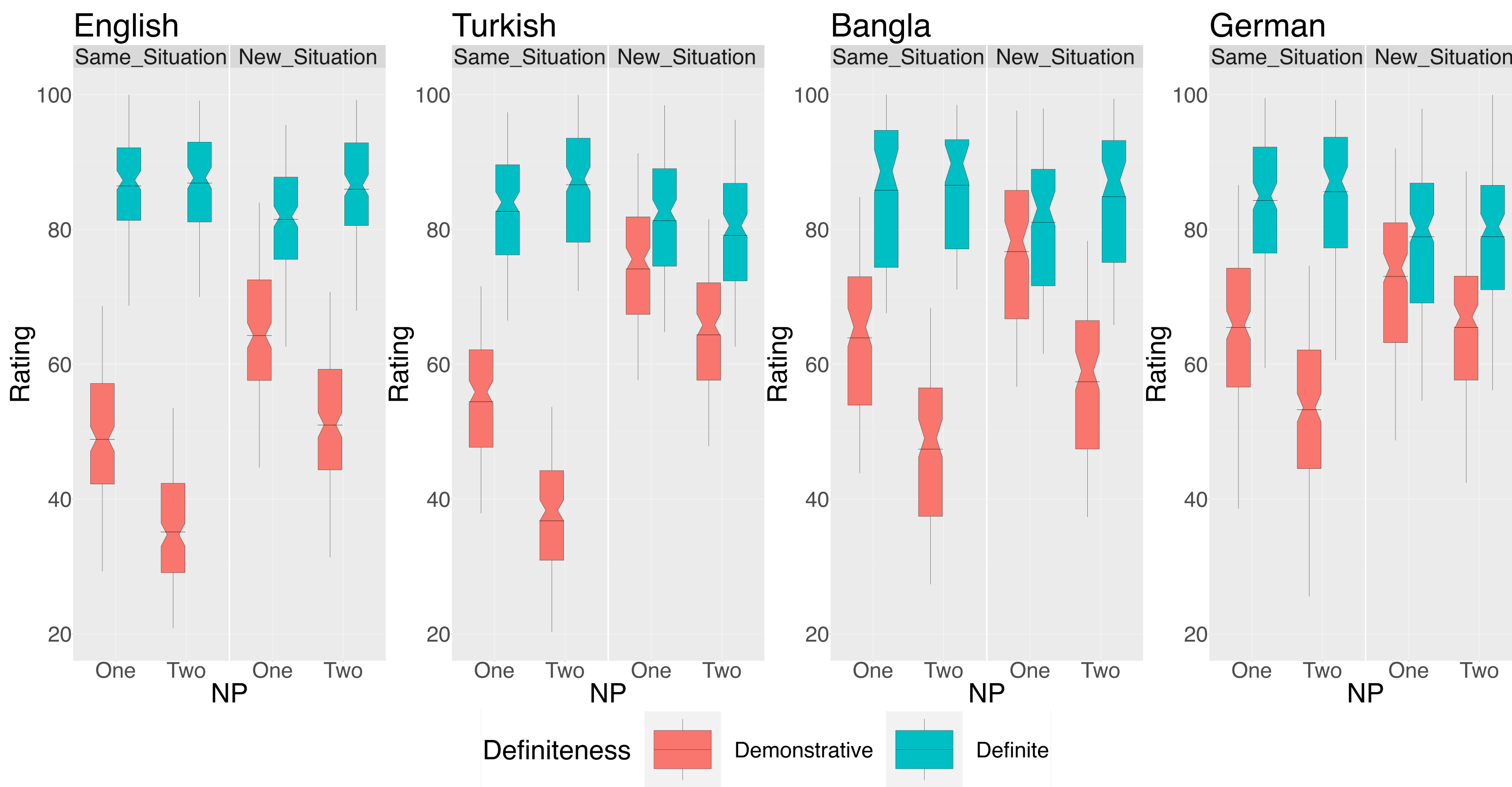


Figure 1. Anaphoric **Definites** vs **Demonstratives**: English, Turkish (Saha et al. 2023), and Bangla (Saha 2023) vs German (our present study)

Findings and Discussion

Statistical analysis: Linear mixed-effects model in R, with experimental conditions as predictors and random by-participant and by-item slopes for experimental conditions. (fit = lmer(Rating ~ Definiteness*NP*Situation + (1|ID) + (1|Scenario), data = dataframe)).

German anaphoric definites

- Rated significantly higher than anaphoric demonstratives across all the conditions, as reported for English, Turkish, and Bangla.

German Demonstratives

- Significantly more acceptable in One NP contexts
- Significantly more acceptable in New Situations
~~ **Aligns robustly with anaphoric demonstratives across the three previously studied languages.**
- New Situation showed a small negative main effect for anaphoric definites—pitching demonstratives directly against definites (following Marty et al. 2020) likely affected the ratings for definites in contexts where the ratings for demonstratives improved (i.e., New Situations), a trend also seen in other languages though not reaching significance.

Conclusions

- We leverage anaphoricity distinctions between demonstratives and definites via existing methodology to show these remain even between demonstratives and strong definites in German.
- This study complements recent quantitative investigations in this domain across languages (Saha 2023, Saha et al. 2023) and work showing strong definites to be a class distinct from weak definites (Schwarz 2022), empirically reinforcing the grounds for a 3-way definiteness distinction.

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References: Ahn, Dorothy. 2019. That thesis: A competition mechanism for anaphoric expressions. PhD dissertation. Ahn, Dorothy & Kathryn Davidson. 2018. Where pointing matters: English and Korean demonstratives. North East Linguistic Society (NELS) 48(1). 15–24. Dayal, Veneeta & Li Julie Jiang. 2022. The puzzle of anaphoric bare nouns in Mandarin: A counterpoint to *Index!* Linguistic Inquiry 54. 147–167. Heim, Irene. 1991. Artikel und Definitheit (Articles and Definiteness). In Semantik / Semantics. In collab. with Armin von Stechow and Dieter Wunderlich. Vol. 6. Berlin, New York: De Gruyter Mouton, pp. 487–535. Marty, Paul, Emmanuel Chemla & Jon Sprouse. 2020. The effect of three basic task features on the sensitivity of acceptability judgment tasks. Nowak, Ethan. 2014. Demonstratives without rigidity or ambiguity. Linguistics and Philosophy 37. 409–436. Roberts, Craige. 2002. Demonstratives as definites. Information sharing: Reference and presupposition in language generation and interpretation 89–196. Robinson 2005. Unexpected (in)definiteness: plural generic expressions in Romance. Rauth, Philipp & Augustin Speyer. 2021. Adverbial reinforcement of demonstratives in dialectal German, Glossa: a journal of general linguistics 6(1): 4. Saha, Ankana. 2023. The anaphoric potential of demonstrative descriptions: An experimental study. Unpublished manuscript. Saha, Ankana, Yağmur Sağ & Kathryn Davidson. 2023. Focus on demonstratives: Experiments in English and Turkish. In Proceedings of Semantics and Linguistic Theory (SALT) 33: 460–479. Schwarz, Florian. 2009. Two types of definites in natural language: PhD dissertation. Schwarz, Florian 2022. Exploring Definiteness Contrasts Experimentally, Talk given at the 1st meeting of the DFG-funded scientific network Definiteness across domains, Humboldt-Universität zu Berlin, Berlin, June, 29th 2022. Schwarz, Florian, et al. 2023. Two types of definites – cross-linguistic experimental study. Talk at Cross-linguistic Perspectives on Processing and Learning (X-PPL 2023). Wolter, Lynsey. 2006. That's that: The semantics and pragmatics of demonstrative noun phrases: PhD dissertation.