

'This text is called an abstract' – An empirical investigation of referring uses of nouns in name-informing quotation

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This text is is called an abstract.

*This text is called **an** abstract.*

*This text is called “**abstract**”.*





Notice the article

- (1) *This text is called “abstract” / **an** “abstract”.*
- (2) *Doctors refer to this disease as “septicemia” / **a** “septicemia”.*
- (3) *One calls this phenomenon “sun halo” / **a** “sun halo”.*

Demonstrations of linguistic shapes usually do not contain an article

- (4) *“Sun halo” has three syllables.*
- (5) ****A** “sun halo” has three syllables.*



Is the quoted noun used with an article “more” referential?

→ Corpus data and reading time experiments

→ Pronoun resolution

Semantics of name-informing quotation



Name-informing quotation (NIQ) informs about shapes of conventionalized names

(1) *One calls this phenomenon “sun halo”.*

call contains three thematic arguments

(2) *One calls this phenomenon “sun halo”*

x call y “ n ”

$\lambda y \lambda n \lambda x$ [CALL(x , y , NAME(“ n ”, y))]

call entails a copular relation: to call y “ n ” entails that y is an n

$\lambda P \lambda y \lambda n \lambda x$ [CALL(x , y , NAME(“ n ”, y) \wedge P(y , n))]

Empirical data



Quotes are a metalinguistic device used to point to linguistic shapes

Quotes materialize the Manner principle:

An expression is mentioned rather than used denotatively

Hypothesis: Quotes are used more often in NIQ when an article occurs

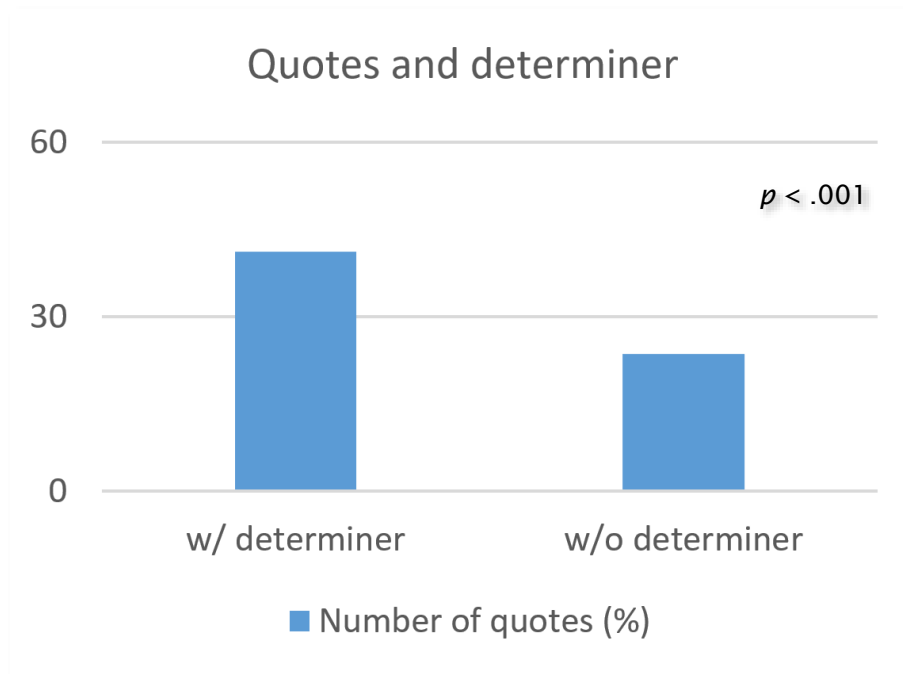
Account: Quotes highlight the name's metalinguistic use in NIQ with article

Prior research: corpus study



German data (DeReKo): Sentences with *nennen* ('call') with and without *auch* ('also'), each N = 500

Construction: *Man nennt X (auch) Y*



Quotational *nennen*
(N = 1000)

→ Hypothesis confirmed



Participants were presented English sentences with name-informing predicates and compounds, and were asked to judge them on a 7-point Likert scale

- 2x2 design
- 24 critical items, 52 fillers

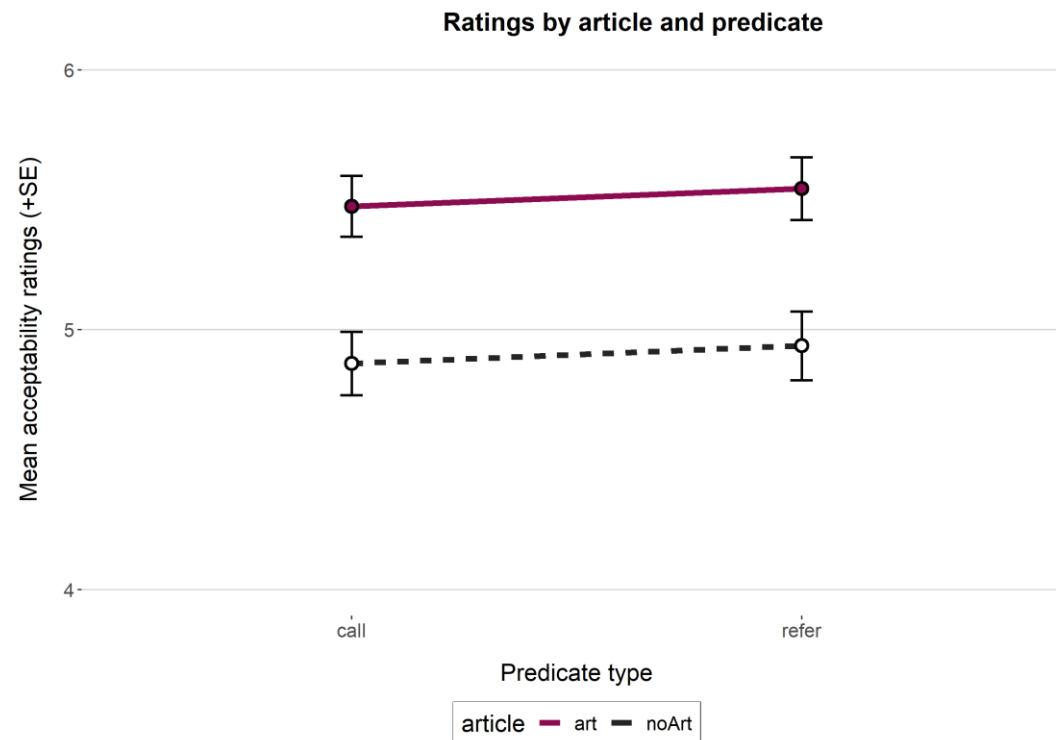
4 Conditions:

- I realized that this phenomenon is **called** sandstorm.*
- I realized that this phenomenon is **called a** sandstorm.*
- I realized that this phenomenon is **referred to as** sandstorm.*
- I realized that this phenomenon is **referred to as a** sandstorm.*



Results:

Significant preference for conditions with an article





(1) Man *nennt* diese Konstruktion *ein* Satteldach ... es ...

(2) Man *nennt* diese Konstruktion Satteldach ... es ...



Hypotheses:

(H1) Names used **with an article** in NIQ are **referentially “more” active** than names used without an article.

(H2) Names used **without an article** in NIQ are “more” metalinguistic and **referentially opaque**.

Reading-time study:

Test the hypotheses using pronouns in follow-up sentences and check for latencies in reading time



Materials

- 80 experimental items
 - **32 critical items**
 - 48 fillers

Critical items

- 2x2 design (within-item)
 - **CONSTRUCTION TYPE:** name-informing quotation vs. activity
 - **REFERENTIALITY:** referring (+article) vs. metalinguistic (-article)
- Endocentric compounds (NN, VN) as names, controlled for frequency
- Masking critical items
 - *nennen* vs. *bezeichnen als*
 - Canonical vs. focal word order



Participants

- 32 German native speakers. Undergraduate students at the University of Kassel (Germany)

Procedure

- In-lab computer
- E-Prime 3 Software
- Word-by-word self-paced reading with moving window paradigm

Self-paced reading study



Participants read (self-paced) short paragraphs and had to answer a yes-no question afterwards

Example (NIQ w/ article)

Context	<i>Leckere Fruchtpürees aus Bananen und Äpfeln werden mit einer Küchenmaschine schnell zubereitet.</i>					
Intro	<i>Man</i>	<i>nennt</i>	<i>das Gerät</i> _{NEUT}	<i>einen Standmixer</i> _{MASC-}		
Target	<i>Teilweise</i>	<i>funktioniert</i>	<i>dieser</i> _{MASC}	<i>bis zu</i>	<i>10 Jahre</i>	<i>lang.</i>
Content question	<i>Hält ein Standmixer teilweise länger als fünf Jahre?</i>					<i>JA</i>



Sample item (4 conditions)

[Context (1)-(3)] /Vor fast 200 Jahren erfanden Menschen den nun einfachsten Weg, Wasser von Quellen zum gewünschten Ort zu befördern.

[Context (4)] /Der Hobbygärtner spricht von dem nun einfachsten Weg, Wasser von Quellen zum gewünschten Ort zu befördern.

- [Intro]
- 1) /Man /**nennt** /den Gegenstandsgegenstand /**eine** Gießkanne. [NIQ,Art]
 - 2) /Man /**nennt** /den Gegenstandsgegenstand /Gießkanne. [NIQ,noArt]
 - 3) /Man /**brachte** /den Gärtnern /**eine** Gießkanne. [Activity,Art]
 - 4) /Man /**vernimmt** /das Wort /Gießkanne. [Activity,noArt]

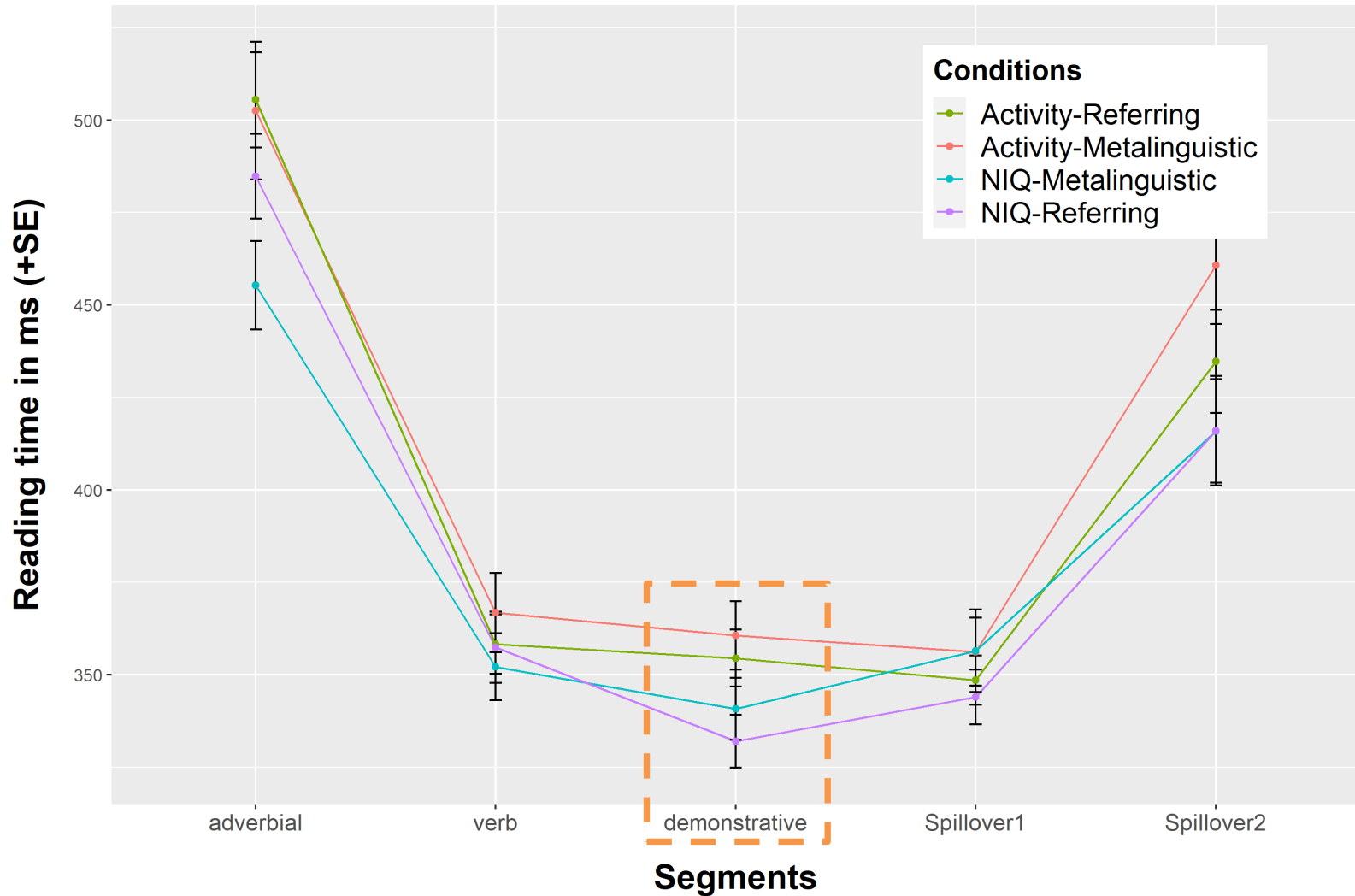
[Target] /Besonders /eignet /**diese** /sich /für Mengen /unter /fünf Litern.

Self-paced reading study



Results RTs across target sentences

Segments per condition (n=32)



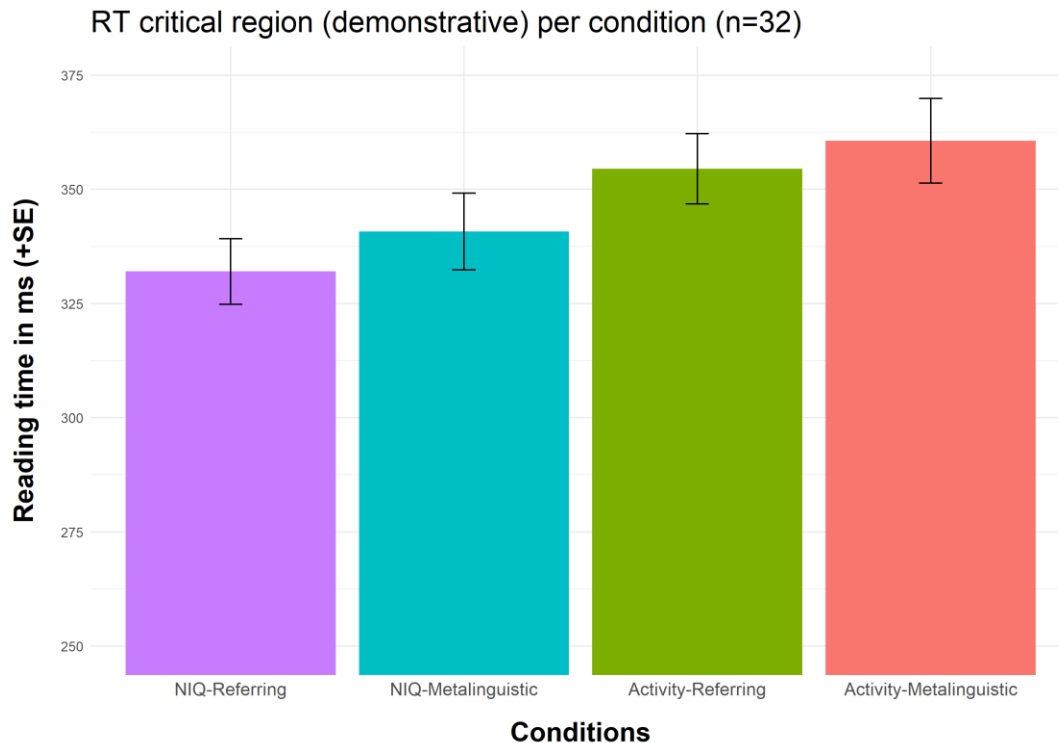


Results RTs across target sentences

- Reading-times were log-transformed
- Data analyzed using a linear mixed model

Formula: $RT \sim \text{Mentioning} * \text{Referential} + (\text{Mentioning} * \text{Referential} | \text{item}) + (\text{Mentioning} + \text{Referential} | \text{subject})$

- Significant effect $p < 0.01$ for PREDICATE TYPE
 - Demonstratives read faster when antecedent contained in a NIQ





Shortcomings

- Differing context in some items between NIQs and Activities
- Spill-over regions containing different material, comparison not possible
- Masking features in critical items, though counterbalanced, can be a confounding factor



Materials

- Based on the material of the previous experiment
- 96 experimental items
 - 24 critical items
 - 52 fillers

Critical items

- 2x2 design (within-item)
 - **PRONOUN TYPE:** demonstrative vs. pronoun
 - **REFERENTIALITY:** referring (+article) vs. metalinguistic (-article)



Sample item (4 conditions)

[Context] /In jeder Küche in Deutschland befindet sich neben Töpfen ein weiteres essenzielles Utensil.

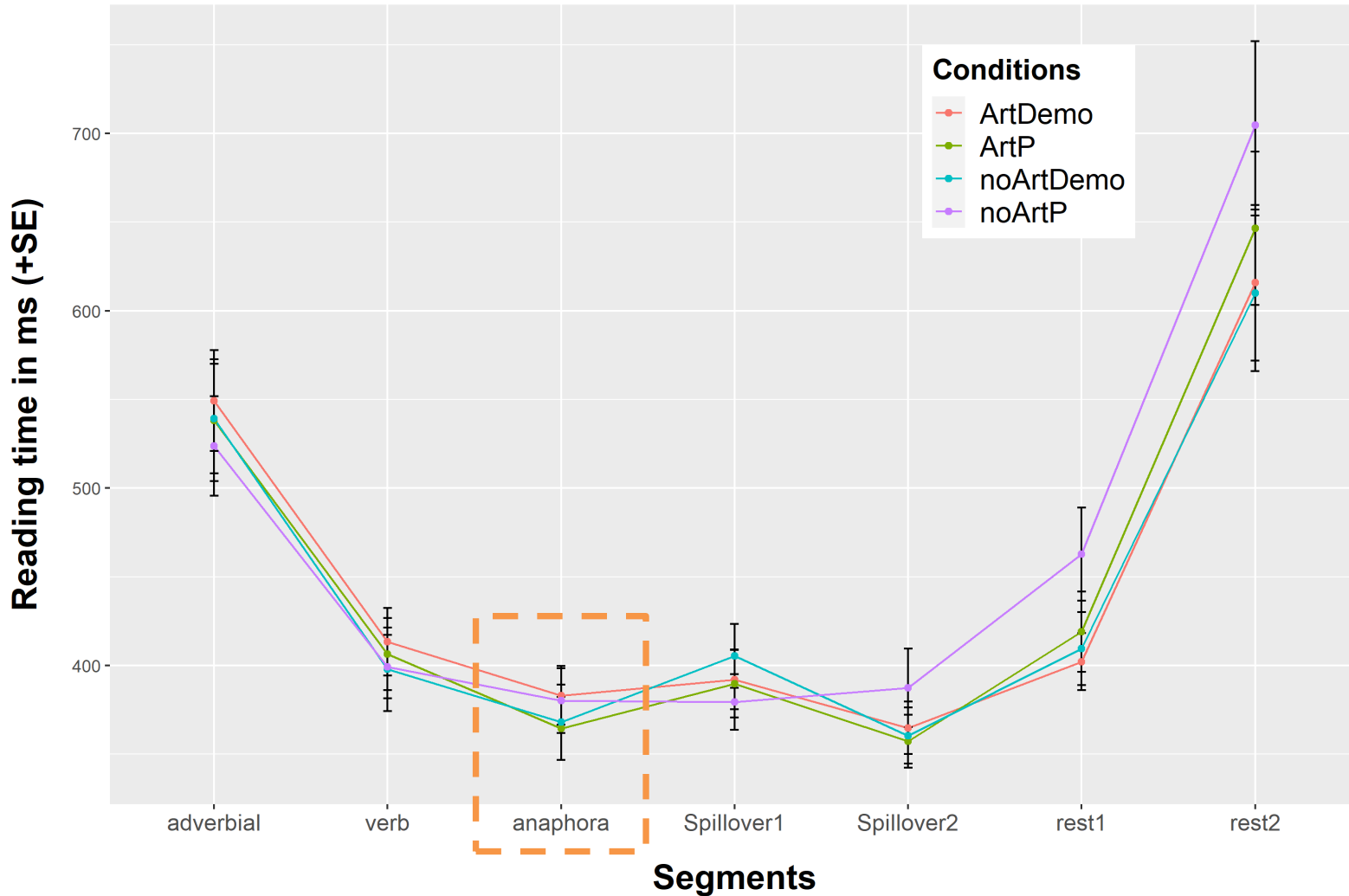
- [Intro/
Target]
- 1) /Man /**nennt** /das Gerät /**eine** Bratpfanne.
/Leider /benötigt /**diese** /häufig /auch /mehr /Pflege. [Art,Demo]
 - 2) /Man /**nennt** /das Gerät /**eine** Bratpfanne.
/Leider /benötigt /**sie** /häufig /auch /mehr /Pflege. [Art,P]
 - 3) /Man /**nennt** /das Gerät / Bratpfanne.
/Leider /benötigt /**diese** /häufig /auch /mehr /Pflege. [noArt,Demo]
 - 4) /Man /**nennt** /das Gerät / Bratpfanne.
/Leider /benötigt /**sie** /häufig /auch /mehr /Pflege. [noArt,P]

Self-paced reading study



Preliminary results: RTs across target sentences

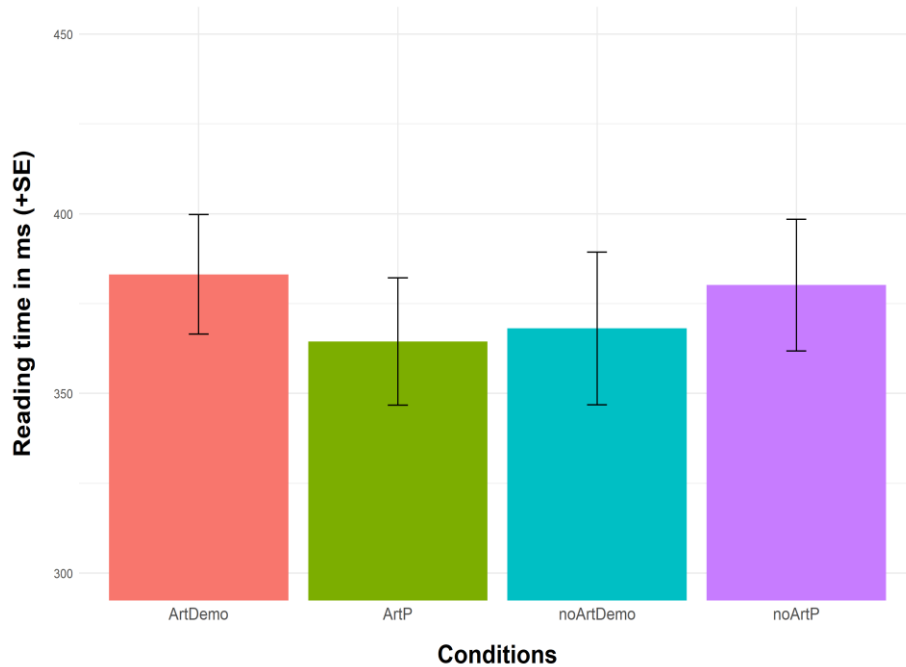
Segments per condition (n=17)



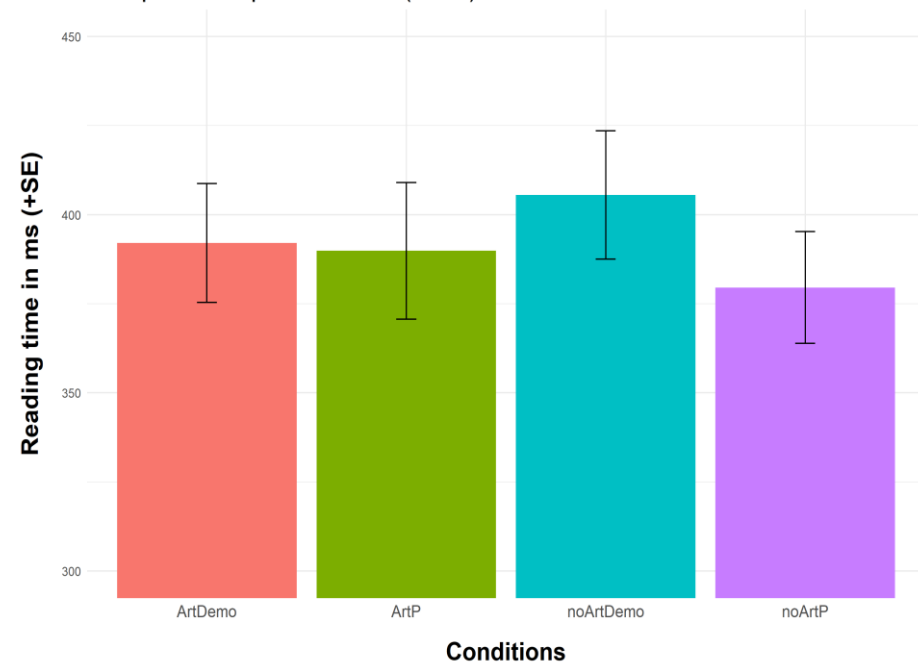


Preliminary results: RTs critical region and Spill-over 1 region (n=17)

RT critical region (anaphora) per condition (n=17)



RT spill-over1 per condition (n=17)





- Name-informing quotation can involve **referring nouns**
- Offline data (CS / AJS) suggest a **referential difference** between nouns used with article and without article
- **No systematic support** in online data (SPR) – we have only observed a tendency w.r.t. demonstratives referring to nouns without article
- We conclude that nouns used with article and without article share **one semantic form**
- Further data and analysis needed

Thank you.



All references can be found in Härtl (2020):

Härtl, Holden (2020) [Referring nouns in name-informing quotation: A copula-based approach](#).
In: Michael Franke, Nikola Kompa, Mingya Liu, Jutta L. Mueller & Juliane Schwab
(eds.) [Proceedings of Sinn und Bedeutung 24 - Vol. 1](#). U Osnabrück / HU Berlin, 291-304.