

Imprecision and social meaning: How speaker identity affects meaning resolution

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Language and the social

Language and the social

Linguistic utterances convey information about speakers' identity and personality

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Social meaning (social indexicality, social markers)

Language and the social

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Social meaning (social indexicality, social markers)

(Labov 1963, Irvine and Gal 2000, Agha 2003, Silverstein 2003, Bucholtz and Hall 2005, Coupland 2007, Eckert 2008, Campbell-Kibler 2007, Mendoza Denton 2008, Podesva 2011, Levon 2014)

Integrating perspectives

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Growing integration of insights and methods from semantics, pragmatics and sociolinguistics

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→ Social meaning can be explored with the diagnostics and formal tools of semantics/pragmatics

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Smith et al. 2010, Burnett 2017, 2019, McCready 2018, Henderson and McCready 2020, Taniguchi 2020, Burnett and McCready forthcoming

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Intensifiers, modals, pronouns, quantifiers

Integrating perspectives

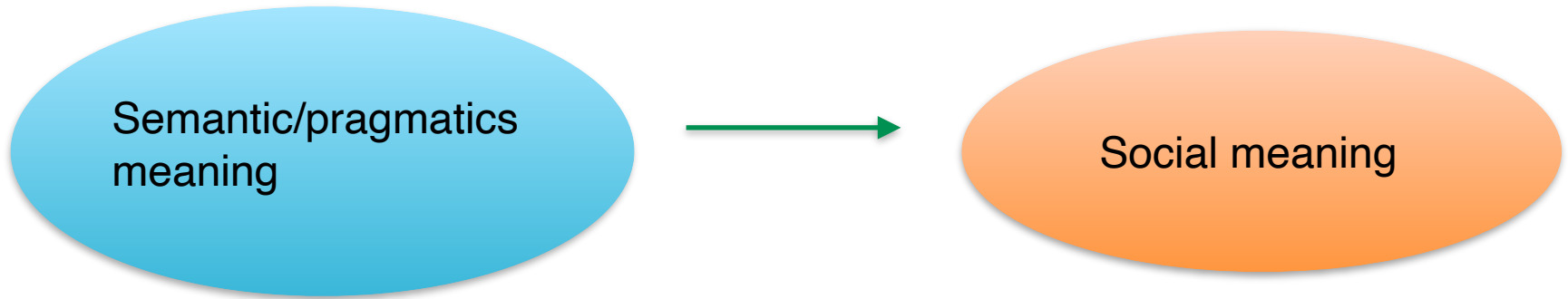
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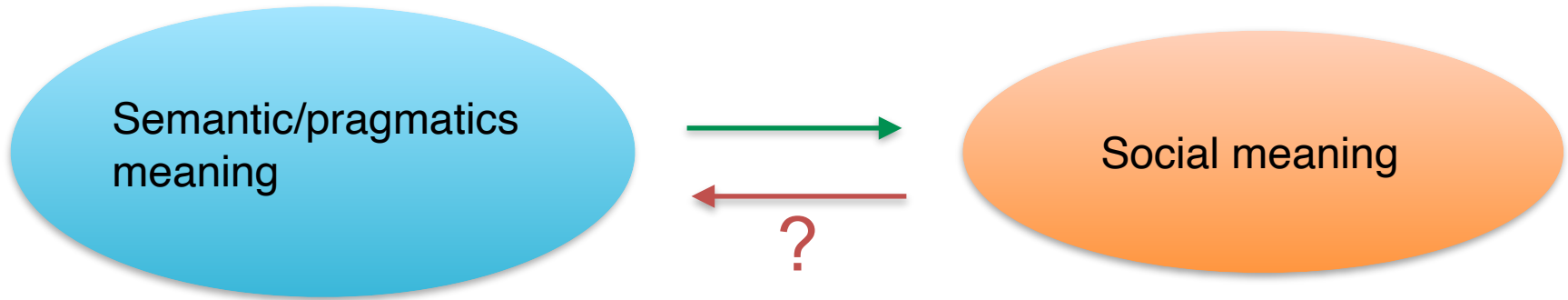
Intensifiers, modals, pronouns, quantifiers

Acton and Potts 2014, Glass 2015, Beltrama & Staum Casasanto 2017, Beltrama 2018, Jeong 2019, Acton 2019, Thomas 2021, Lee 2021

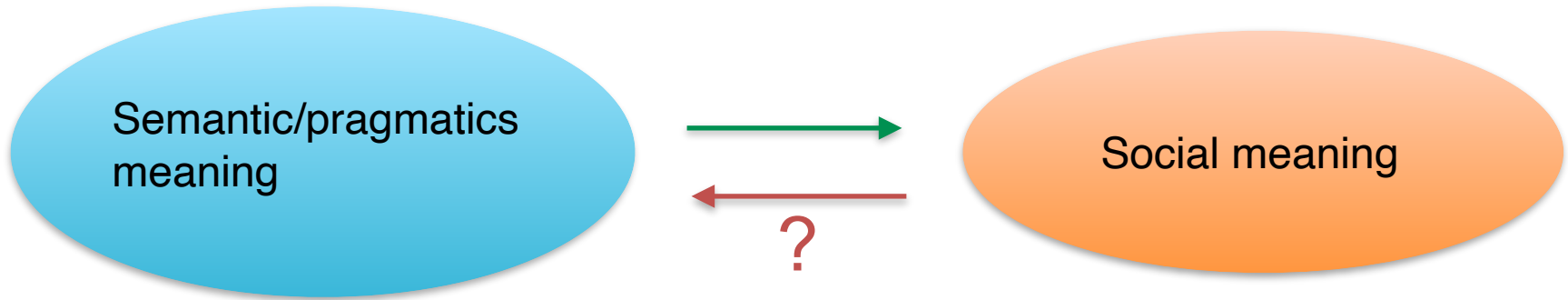
Our question



Our question



Our question



Can social meaning shape meaning interpretation?

Roadmap

Imprecision: a case study

The experiment

- Creating identity contrasts

- Testing speaker identity effects

- Exploring the role of comprehenders' identity

The outlook

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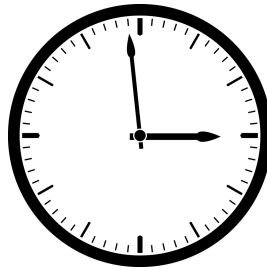
(Im)precision

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It's 3 o' clock!

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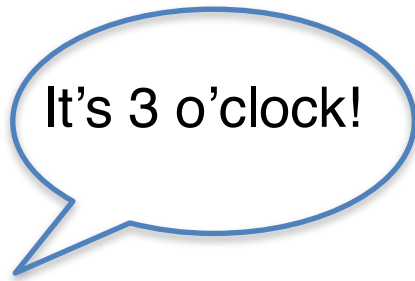


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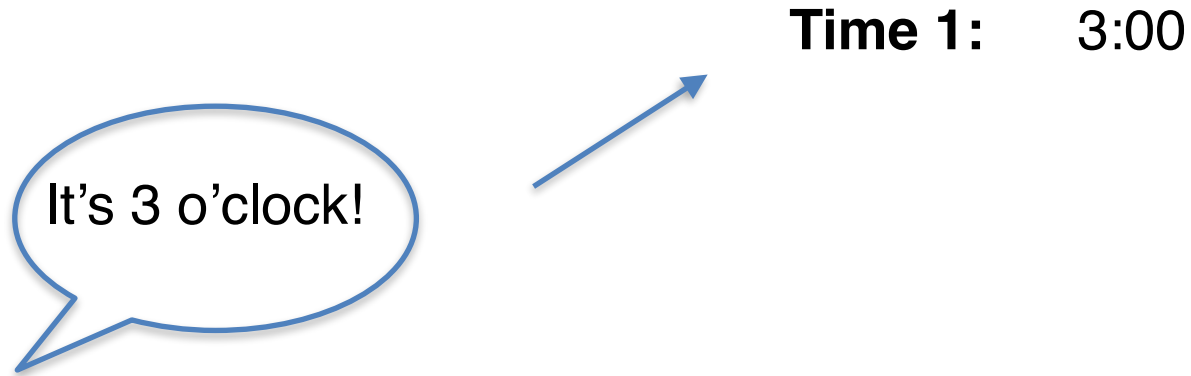
Wittgenstein 1955, Austin 1961, Lewis 1979, Pinkal 1995; Lasersohn 1999; Krifka 2007; Kennedy 2007; Sauerland and Stateva 2007, 2011, Lauer 2013; Solt 2014; Burnett 2014; Leffel, Kennedy and Xiang 2016; Klecha 2017; Aparicio 2017

Indeterminacy

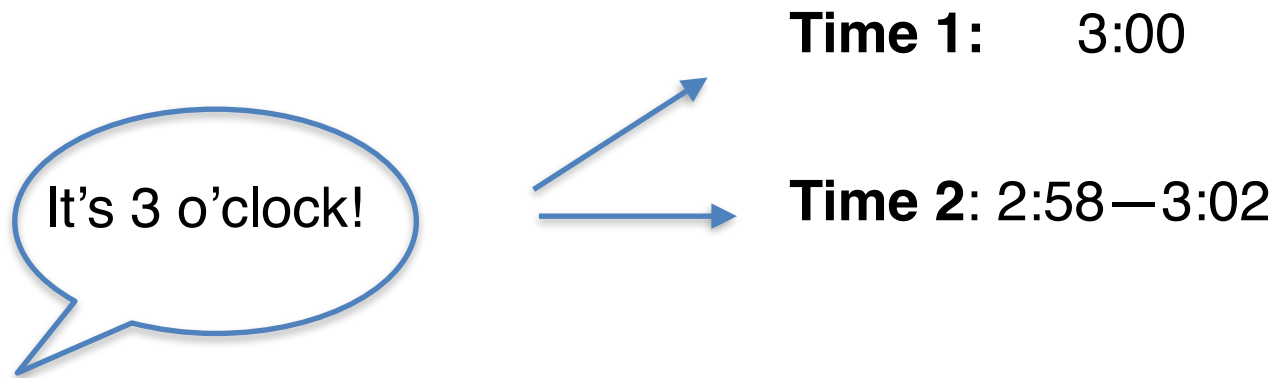
Indeterminacy



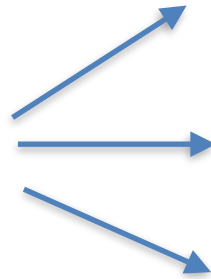
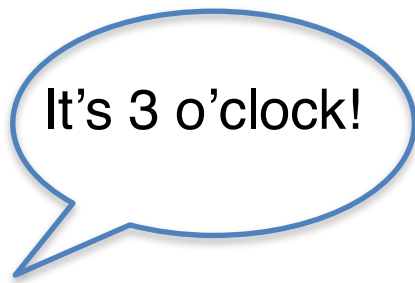
Indeterminacy



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Indeterminacy

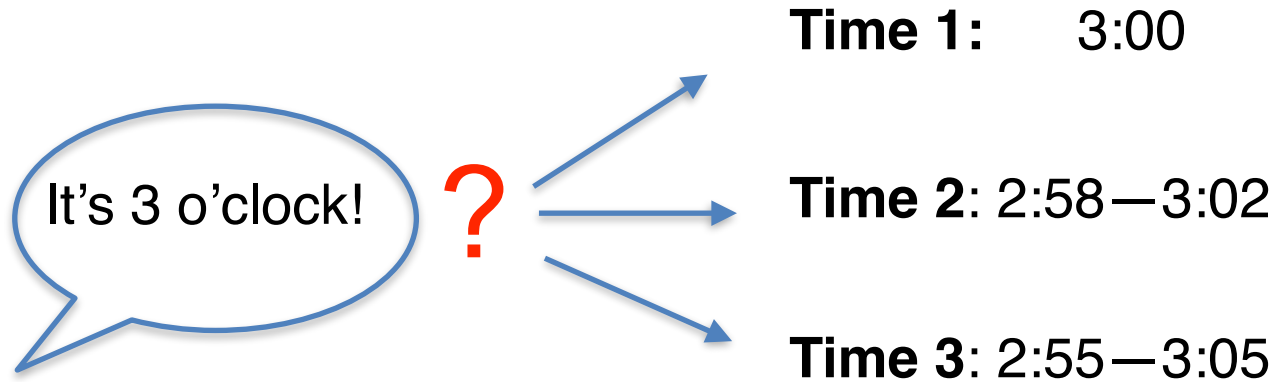


Time 1: 3:00

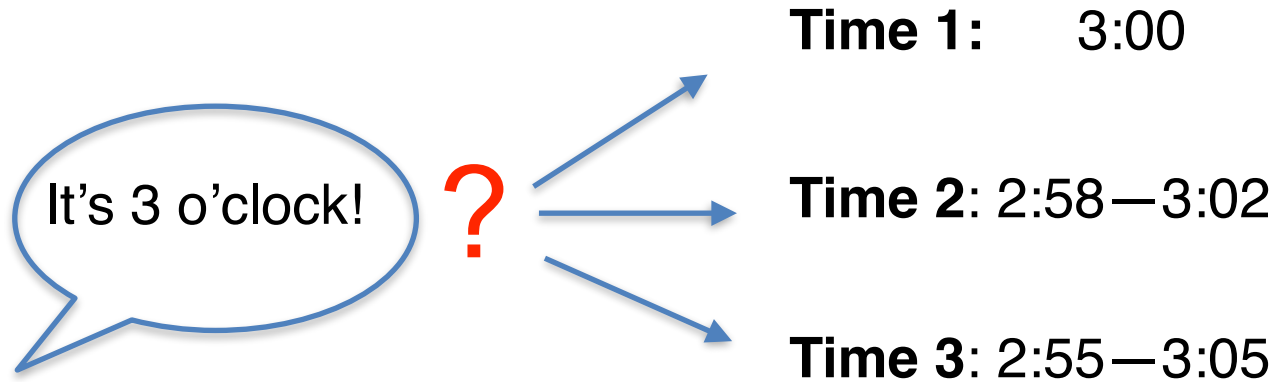
Time 2: 2:58—3:02

Time 3: 2:55—3:05

Indeterminacy



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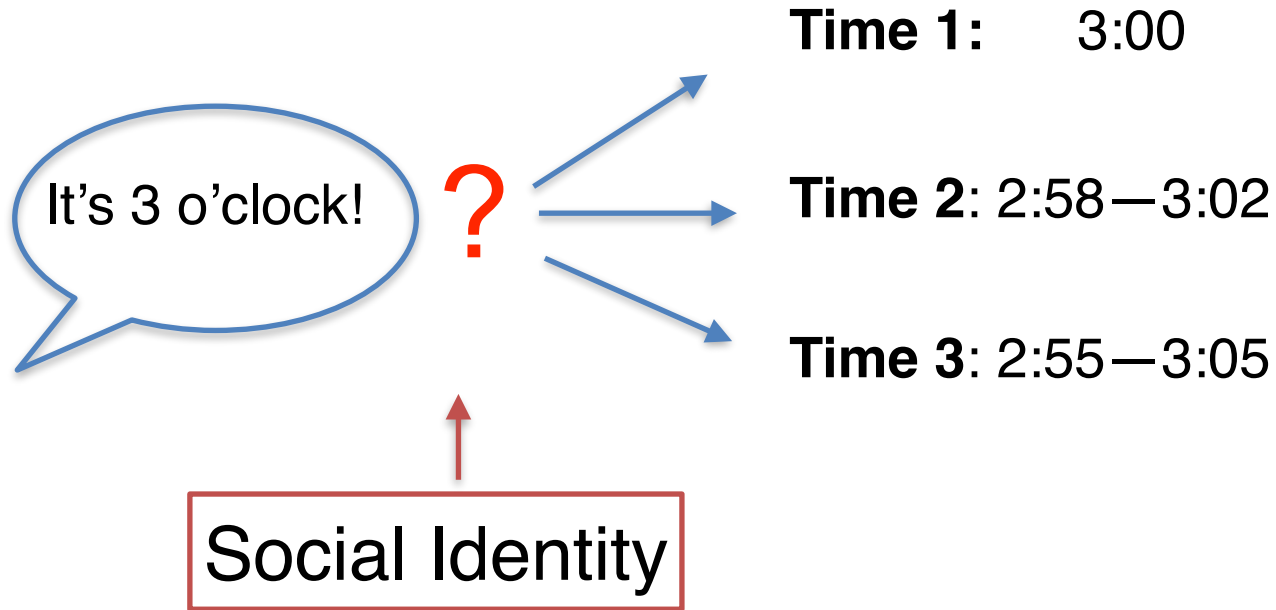


Speech situation (Kennedy 2007)

Conversational goals (Lasersohn 1999, Aparicio 2017)

Modality of presentation (Van der Henst et al. 2002)

Indeterminacy



Identity and precision

Identity and precision

Evidence suggesting that precision level can signal social information:

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Acoustic/articulatory detail as a cue to signal social identity

(*white nerds*, Bucholtz 2001)

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Speakers uttering numerically precise descriptions perceived as:

Positive: *intelligent, educated, articulate, hard-working*

Negative: *uptight, obsessive, pedantic, annoying*

(Beltrama 2018; Beltrama, Solt and Burnett 2021)

The reverse perspective

The reverse perspective

Do comprehenders revolve (im)precision differently depending on the identity of the speaker?

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Identity contrasts

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A type of speaker who is socially expected to speak **precisely**:

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Identity contrasts

A type of speaker who is socially expected to speak **loosely**:

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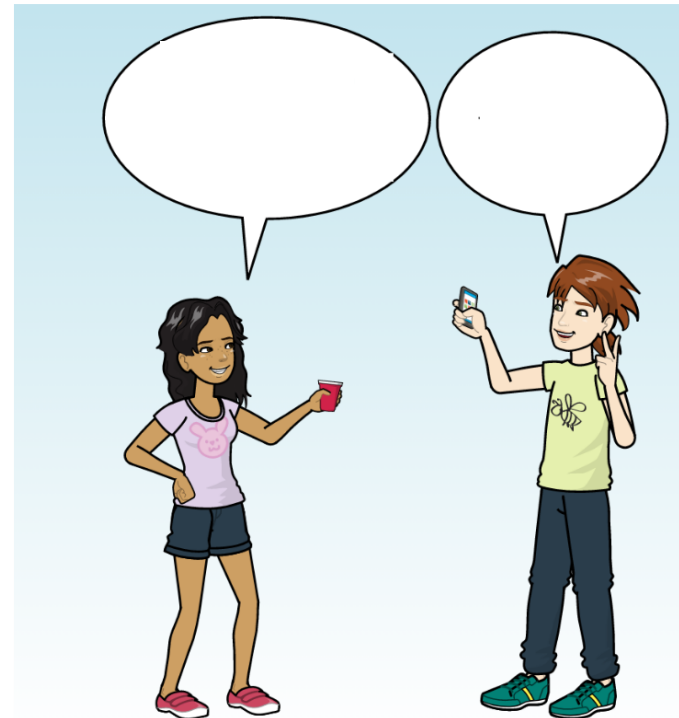
A type of speaker who is socially expected to speak **loosely**:

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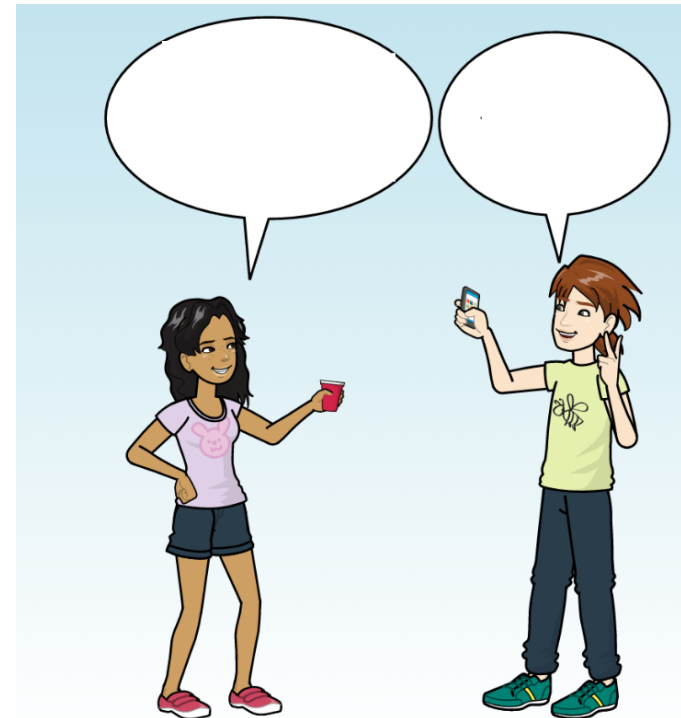
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Social types/personae as constructs
central to sociolinguistic variation and
cognition

(Agha 2005, Podesva 2011, D'Onofrio
2016, 2020)

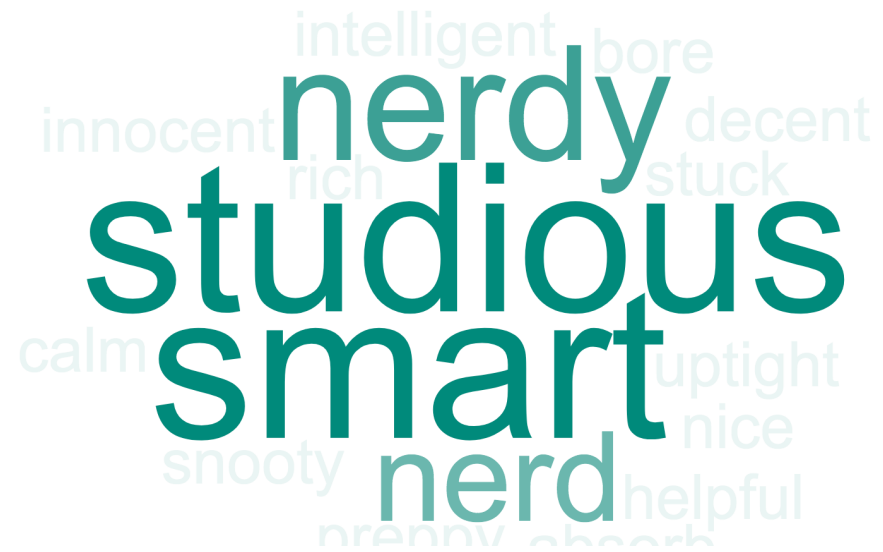
Attribute elicitation

Here's Arthur and Rachel having a conversation.



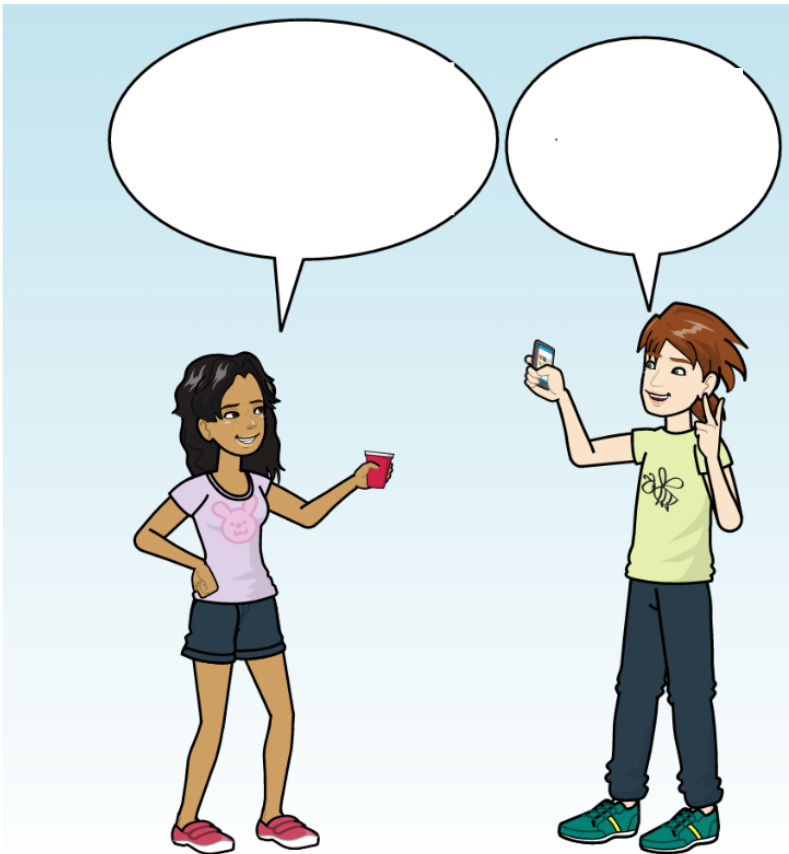
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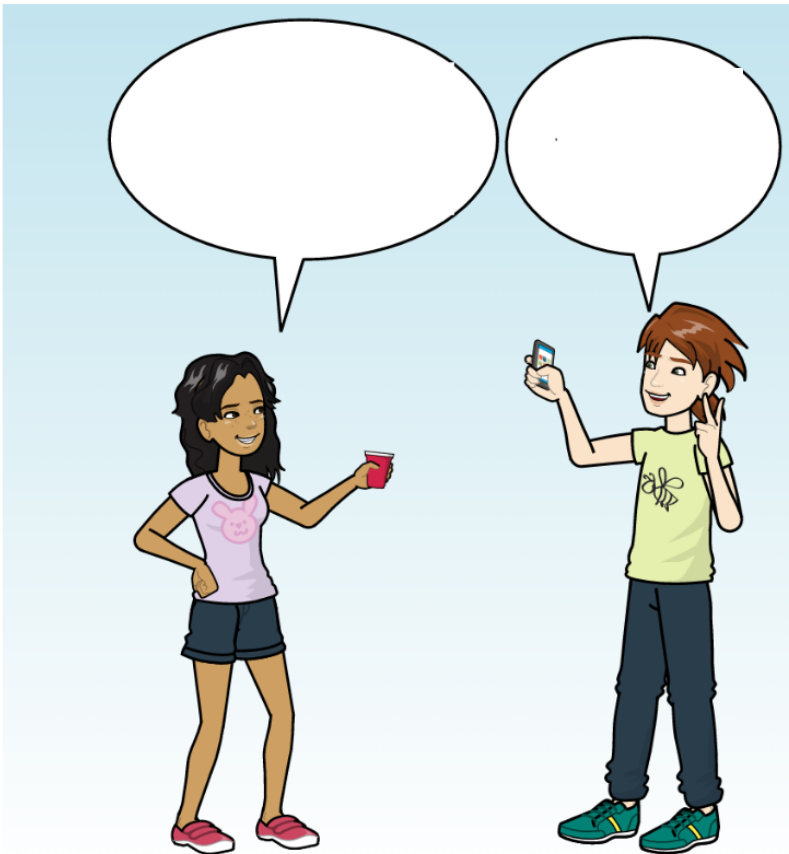
Attribute elicitation

Here's Alex and Eva having a conversation.



Attribute elicitation

Here's Alex and Eva having a conversation.



easygoing
casual trendy skate artistic
selfish laid.fun hipster
cool nice back smart
simple young truthful
relax care gentel
loving friendly
peaceful

Speech expectations

Q19 - How precise do you think Alex and Arthur normally are in telling the time?

#	Field	Minimum	Maximum	Mean	Std Deviation
1	Alex	0.00	100.00	48.03	31.45
2	Arthur	30.00	100.00	87.22	17.69

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"Rachel and Arthur are looking for a one-way plane ticket"

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The covered screen task

"Rachel and Arthur are looking for a one-way plane ticket"

Which phone is Arthur looking at?



F

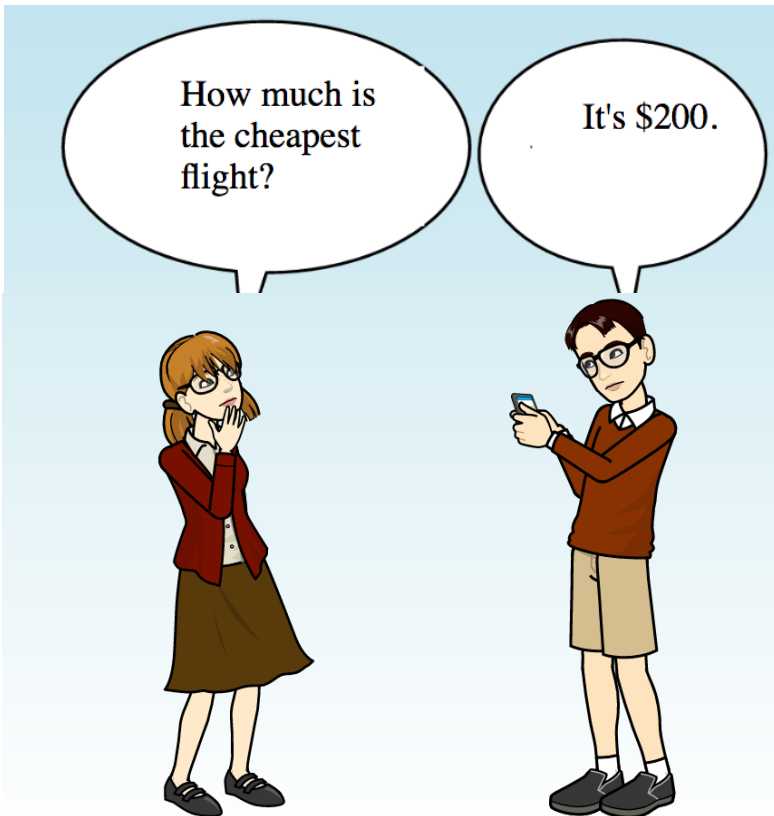


J

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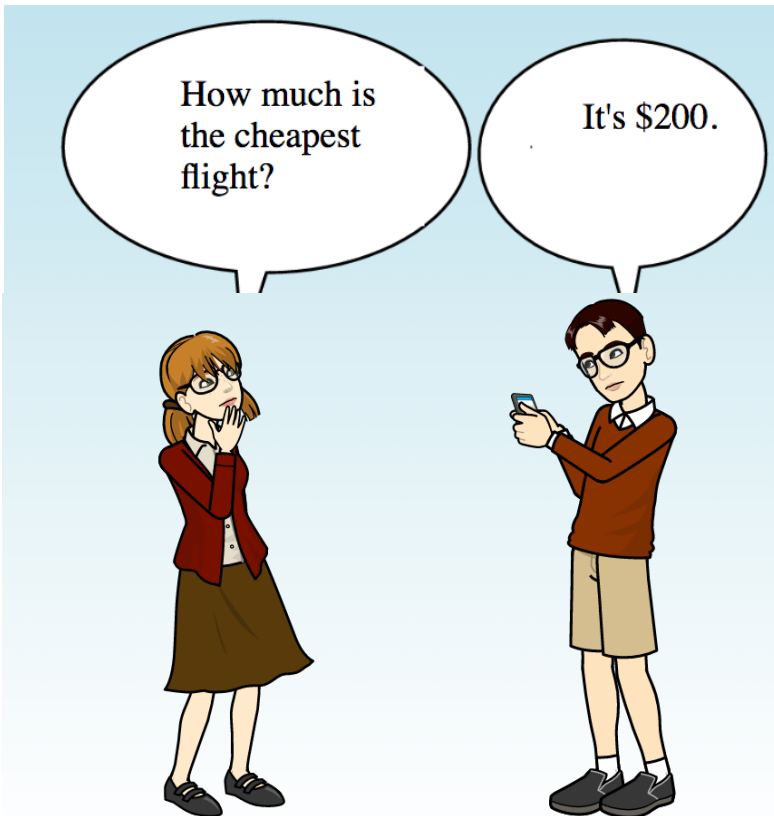


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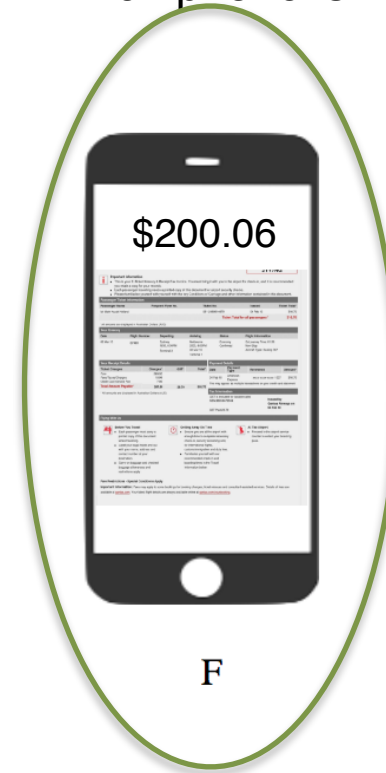
Match

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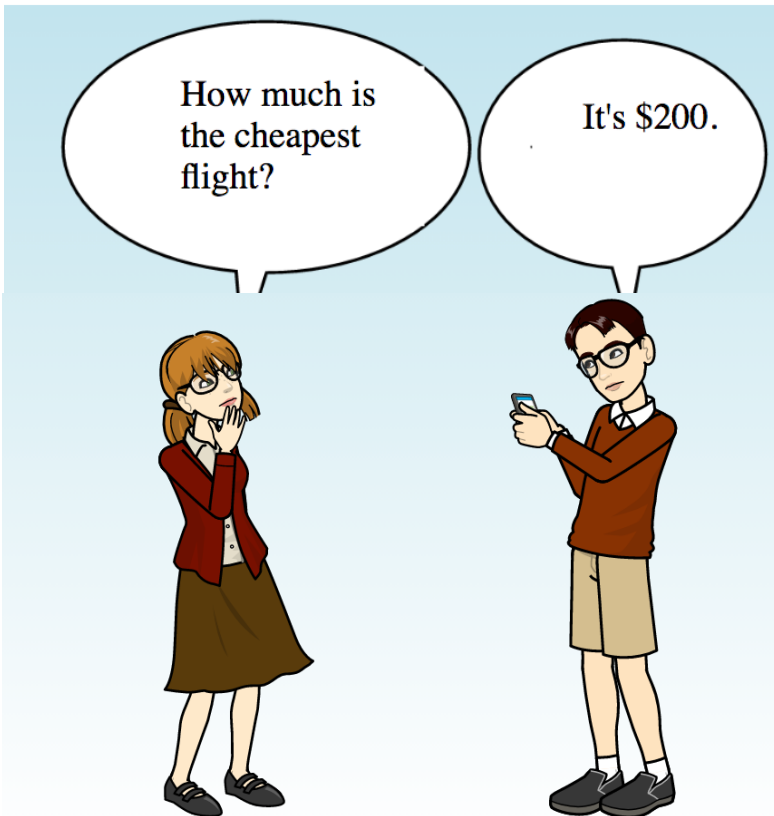
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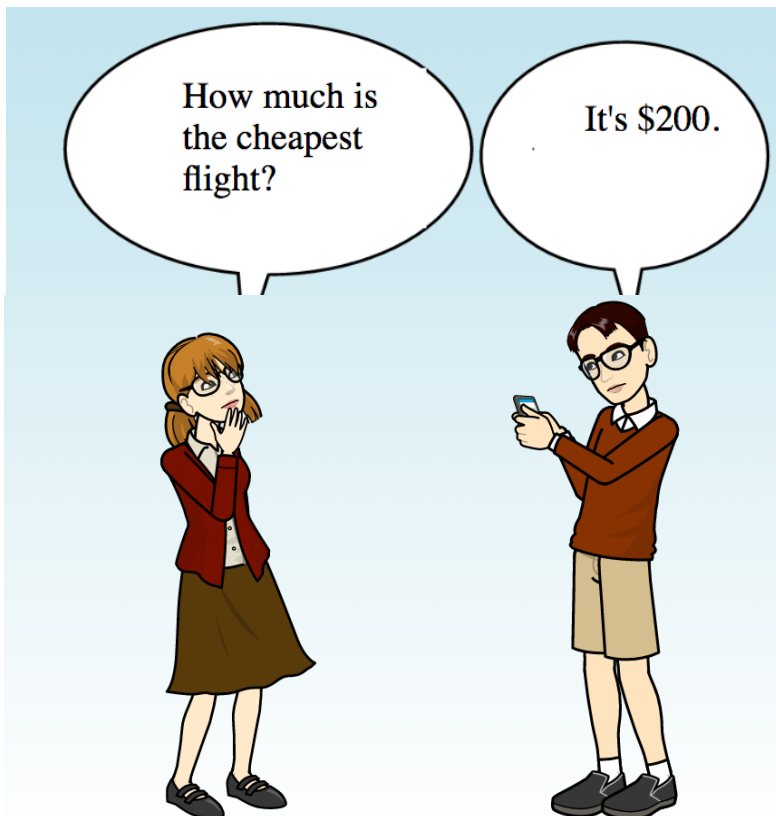
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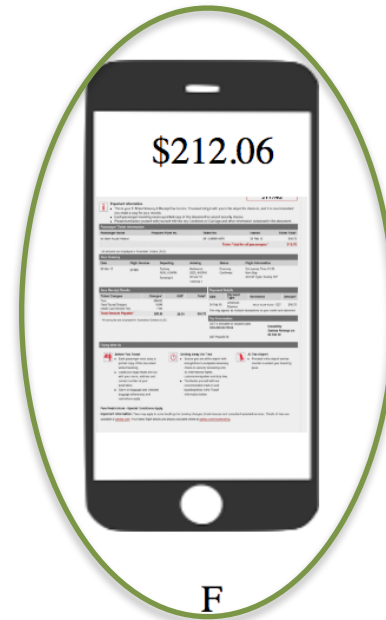
Imprecise

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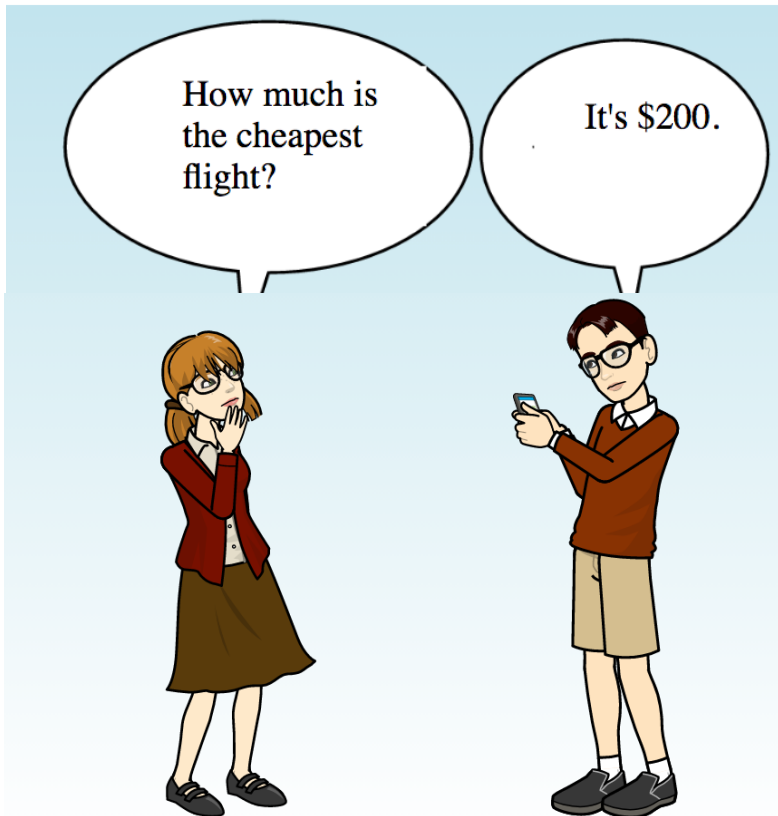


Lenient

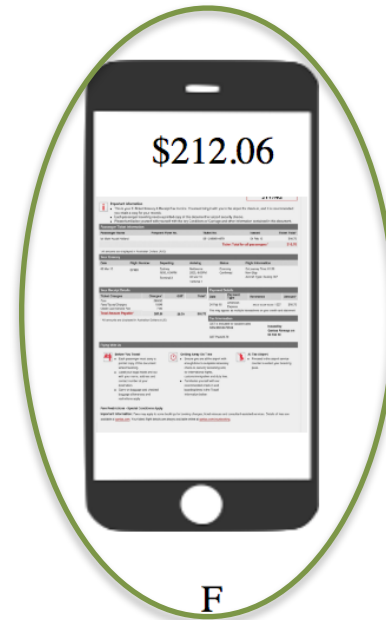
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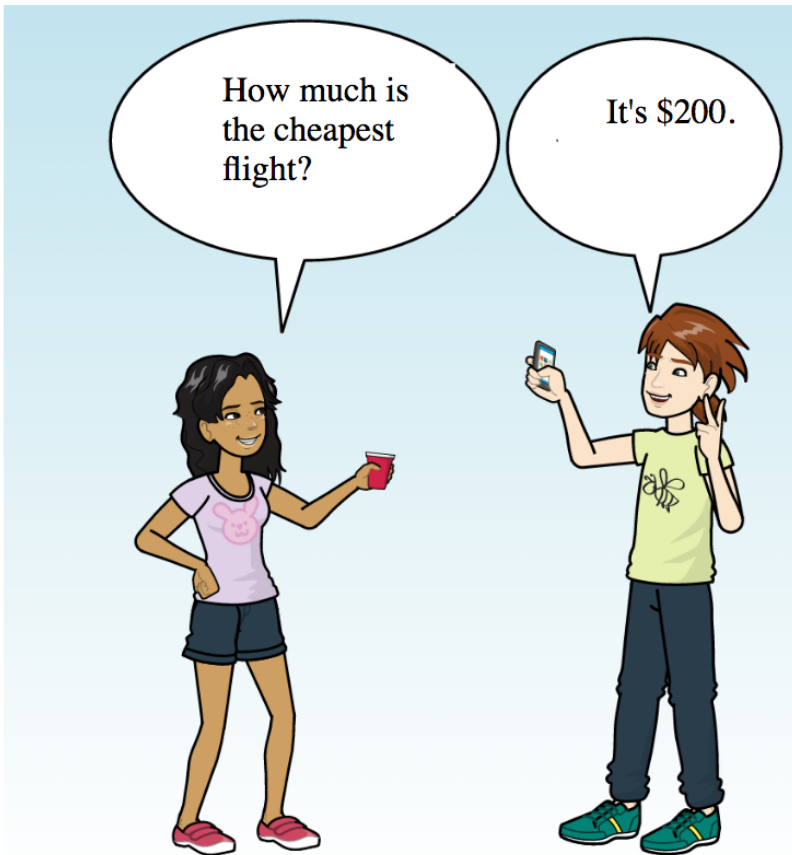
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Strict

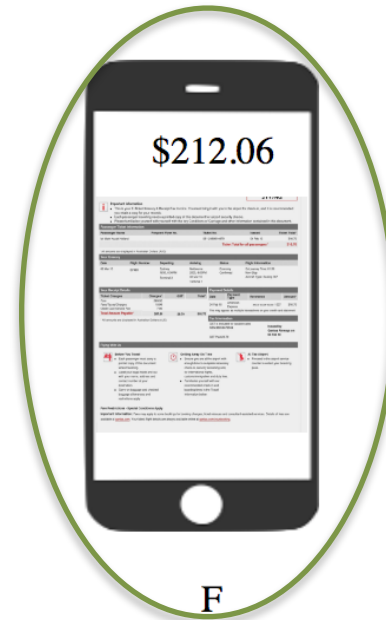
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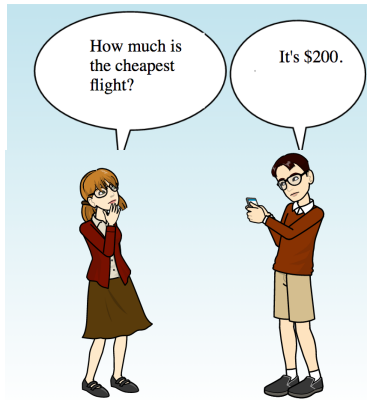
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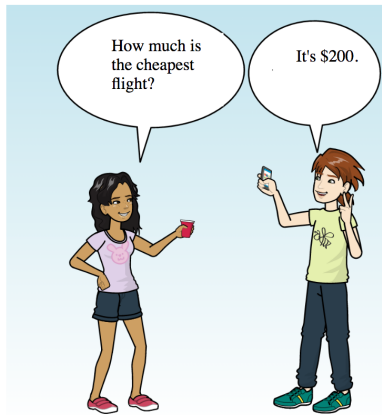
Imprecise

Two experiments

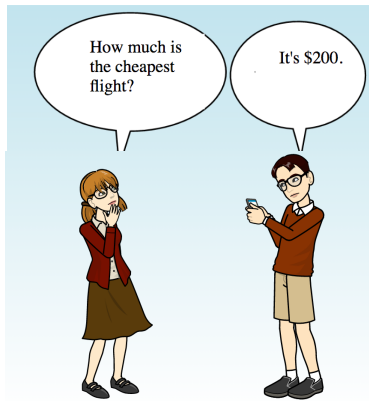
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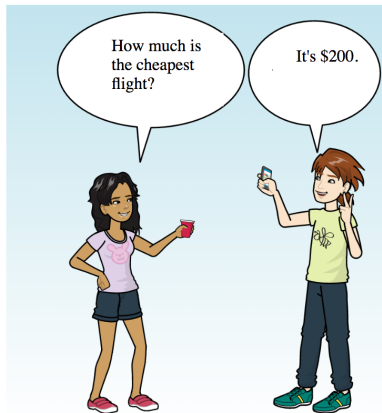
or



Two experiments



or



Experiment 1

Which phone is Arthur looking at?



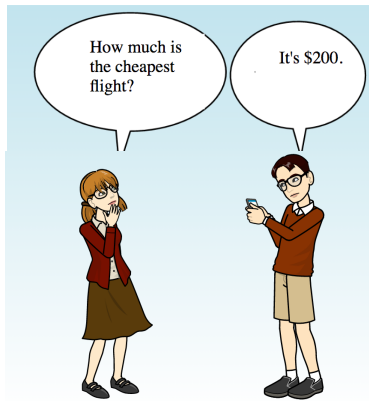
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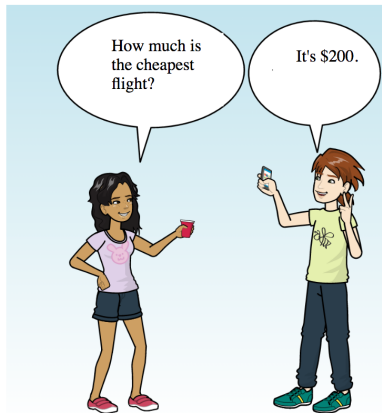
J

Match

Two experiments



or



Experiment 1

Which phone is Arthur looking at?



F



J

Match

Experiment 2

Which phone is Arthur looking at?



F



J

Match

Design

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 - Match (Match, Mismatch, Imprecise): **within**-subjects

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- Study designed on PC Ibex and run on Prolific (Exp1: 172 part; Exp2: 144 part)

Back to our question

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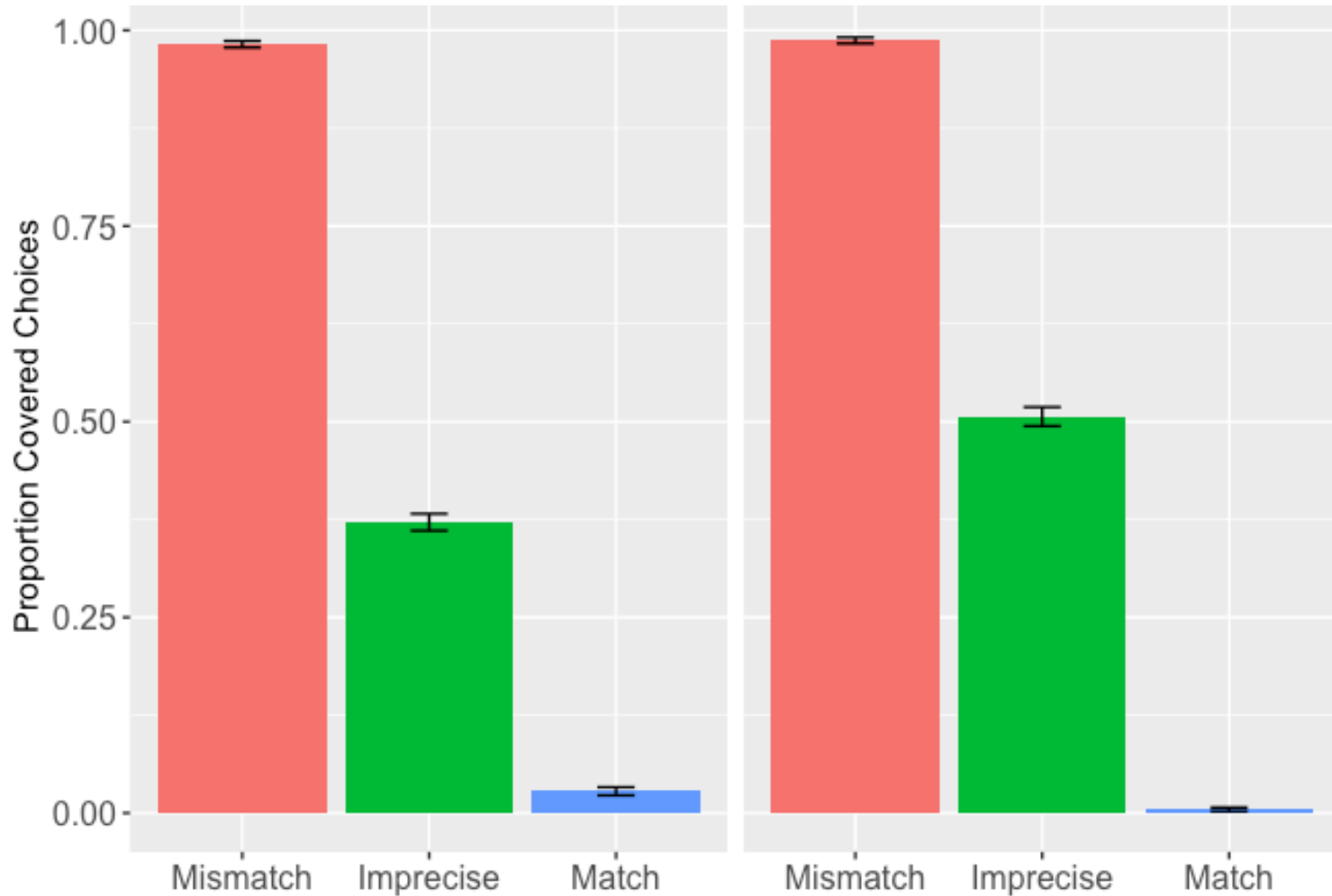
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Screen choice: Mixed-effects logistic regression

Screen choice by Match

Exp 1: Match only in whole number

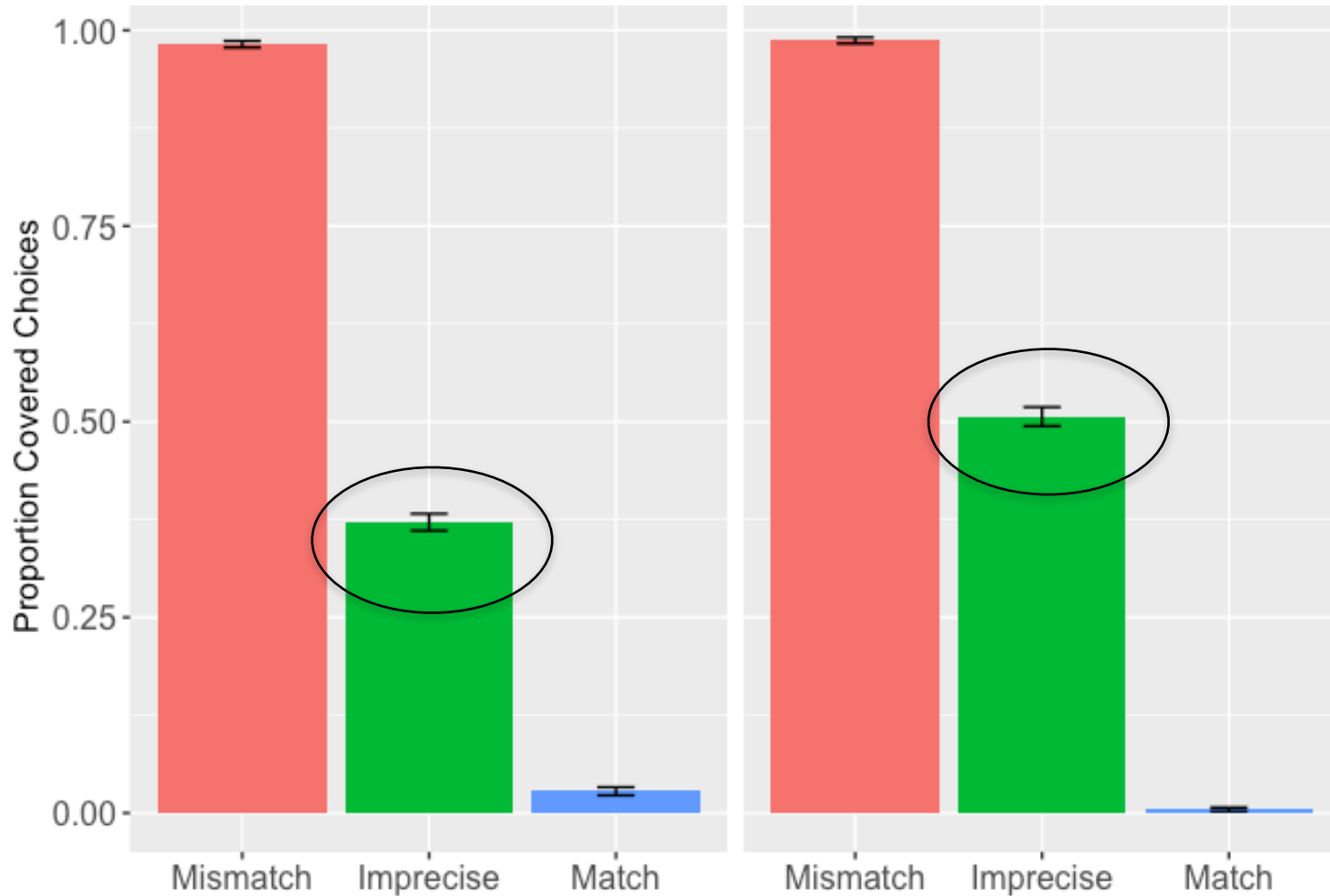
Exp 2: Match also in decimals



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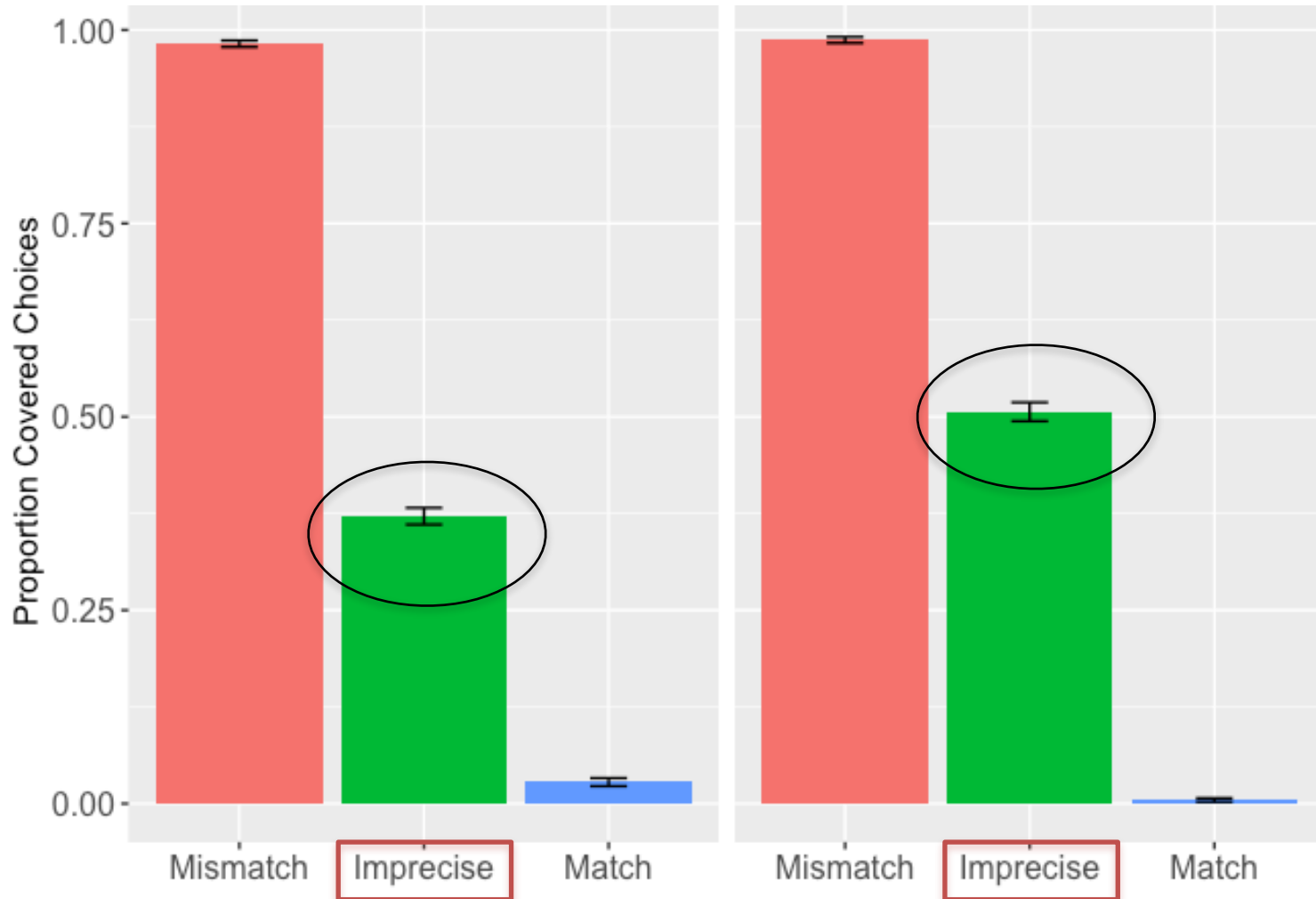
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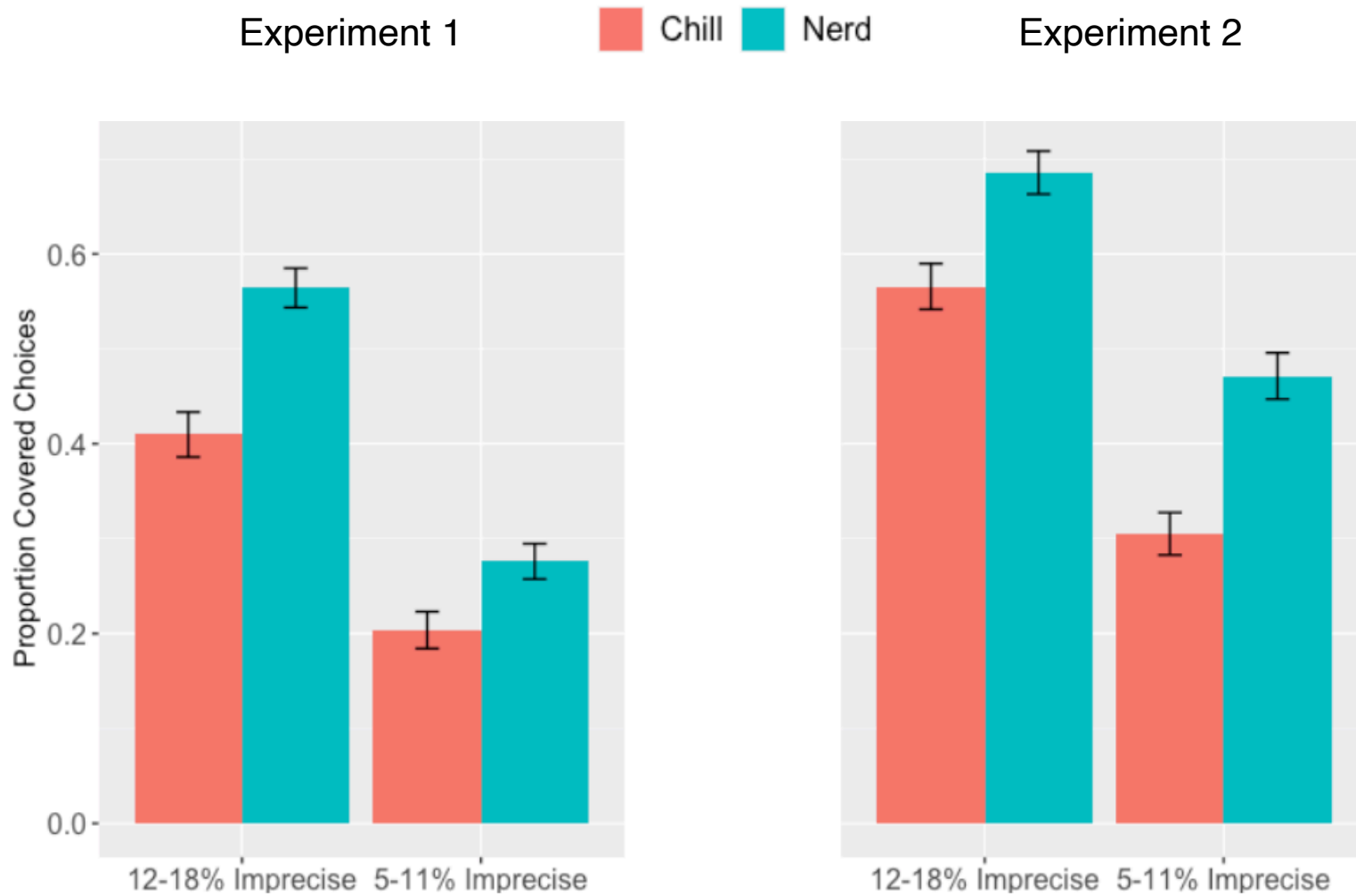
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Screen choice by Match and Persona

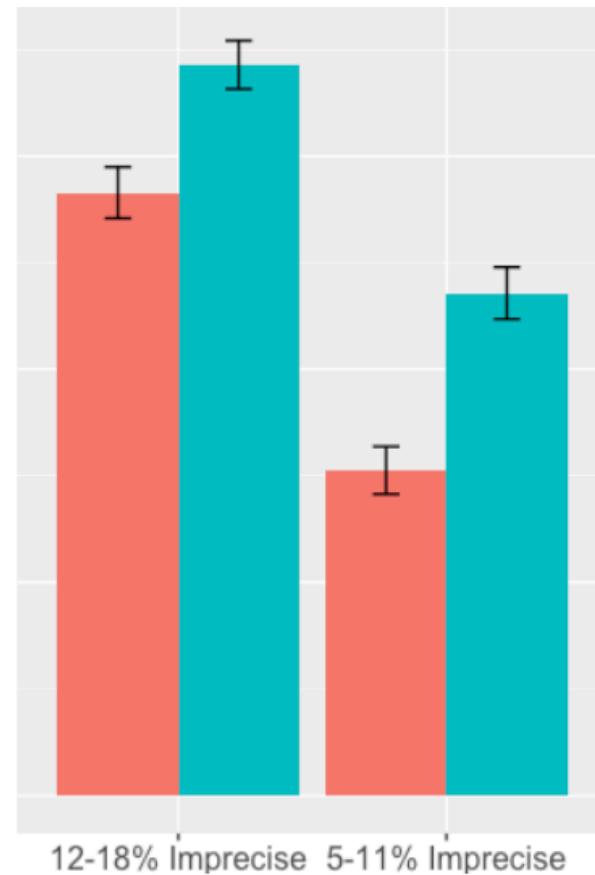
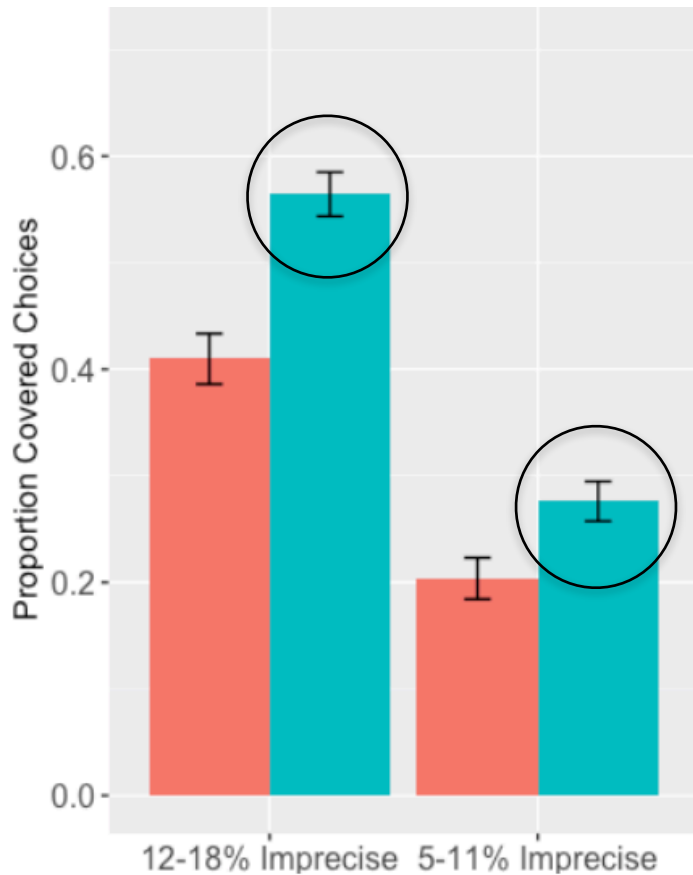


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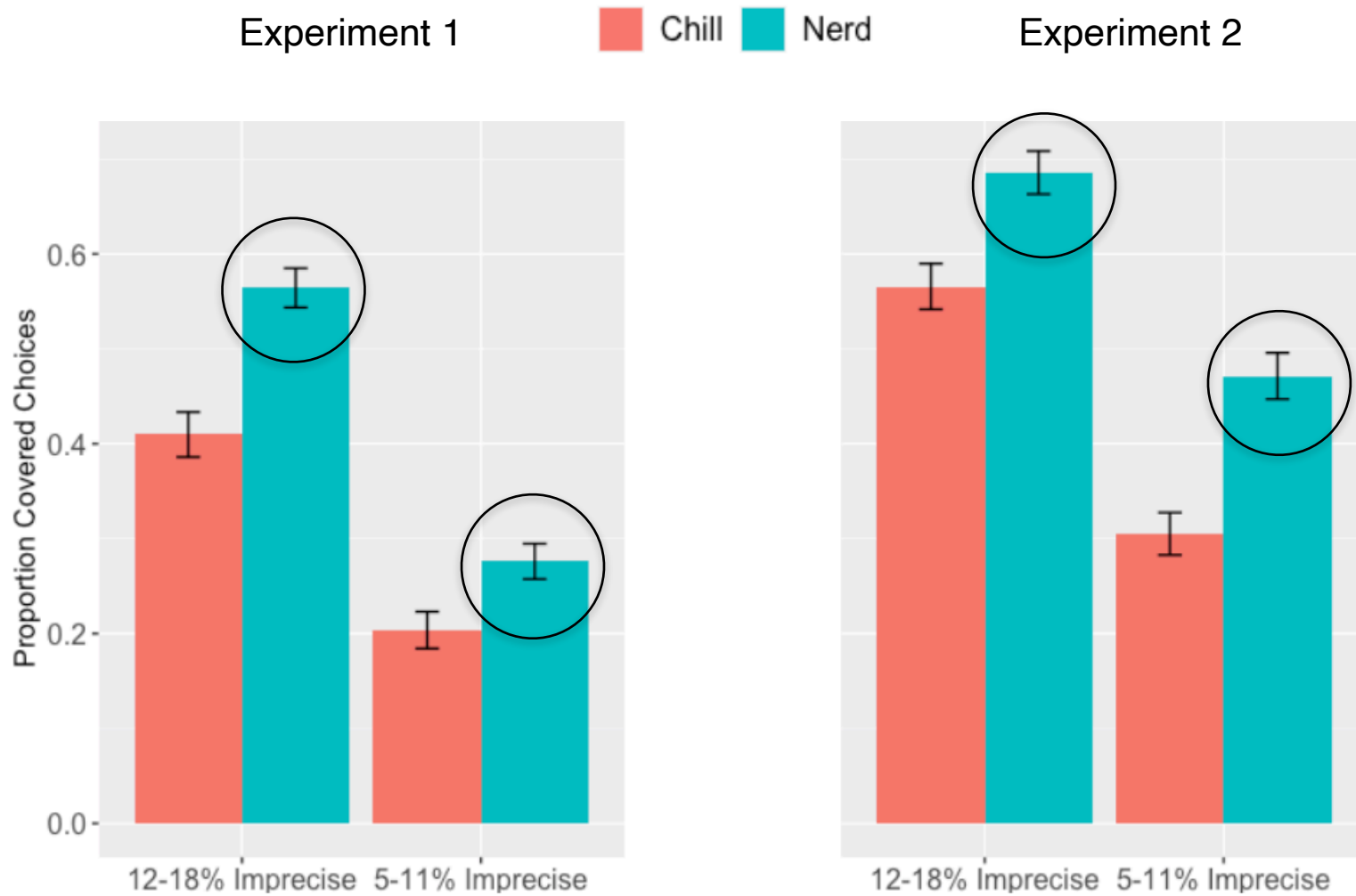
Experiment 1

Chill Nerd

Experiment 2



Screen choice by Match and Persona



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The role of participants' identity

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How is the speaker identity effect modulated by participants' own alignment with these personae?

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(Gumperz 1982, Niedzielski 1999, Silverstein 2003, Eckert 2008, Campbell-Kibler 2011, Podesva 2011 among **many others**)

Exit Survey

Exit Survey

I'd describe myself as:

Not nerdy at all! Very nerdy!

Not chill at all! Very chill!

Exit Survey

I'd describe myself as:

Not nerdy at all! Very nerdy!

Not chill at all! Very chill!

Using median, each participant categorized as:

- Either Nerdy or Non-Nerdy
- Either Chill or Non-Chill

Creating groups

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New Factor: **Ingroupness**

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Ingroup: Participant's and speaker's identity align

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Ingroup: Participant's and speaker's identity align

Outgroup: Participant's and speaker's identity don't align

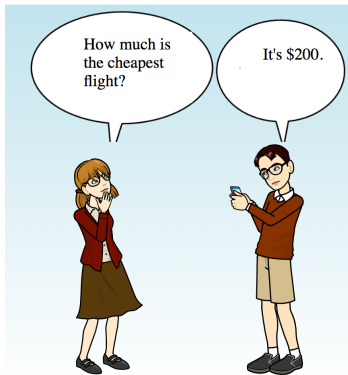
Creating groups

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Nerdy speaker



Nerdy Participant → Ingroup

Non-Nerdy Participant → Outgroup

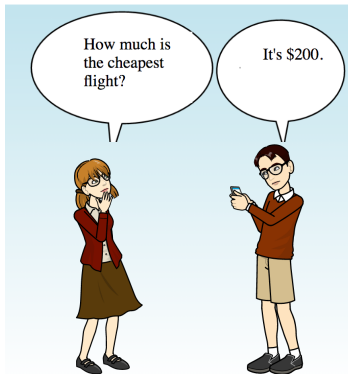
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Chill speaker



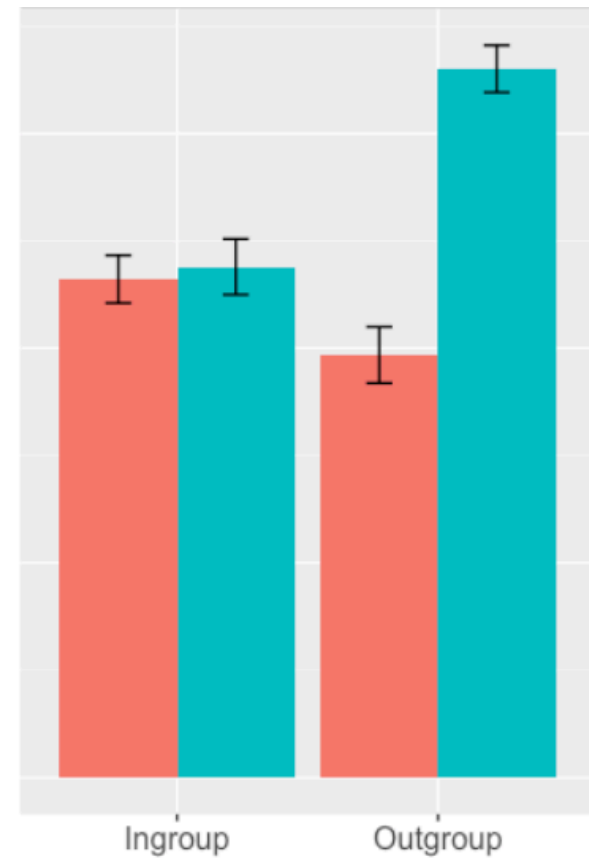
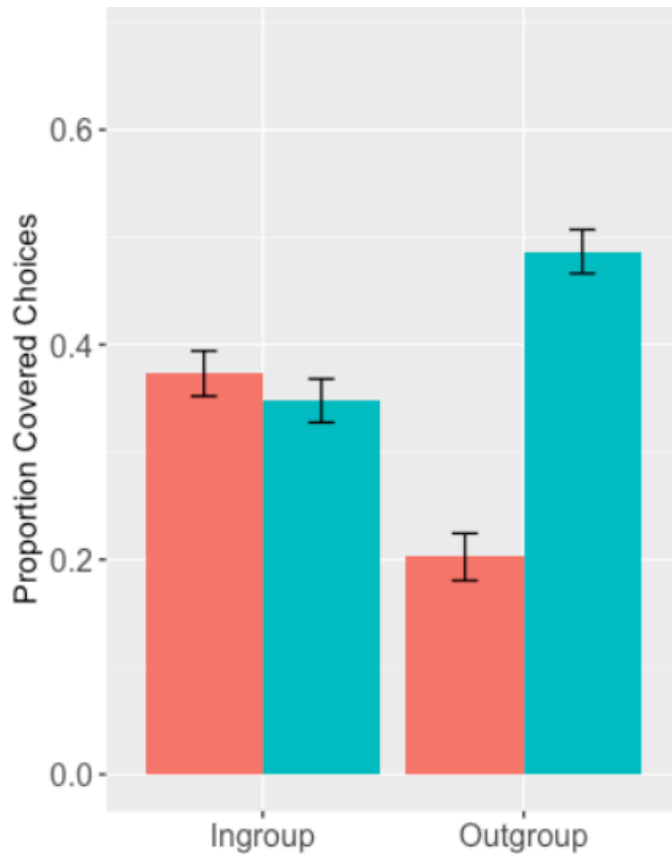
Chill Participant → Ingroup
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Screen choice by Speaker Identity

Experiment 1

Chill Nerd

Experiment 2

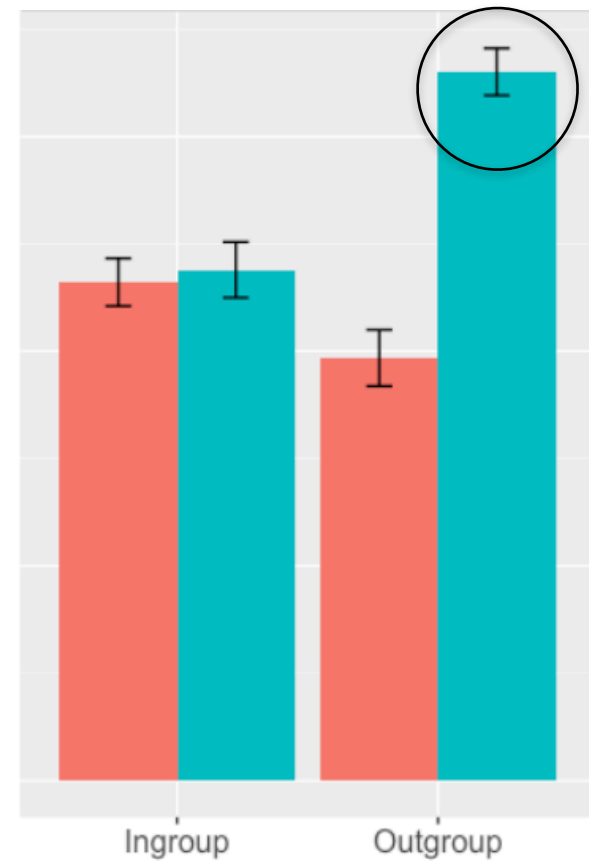
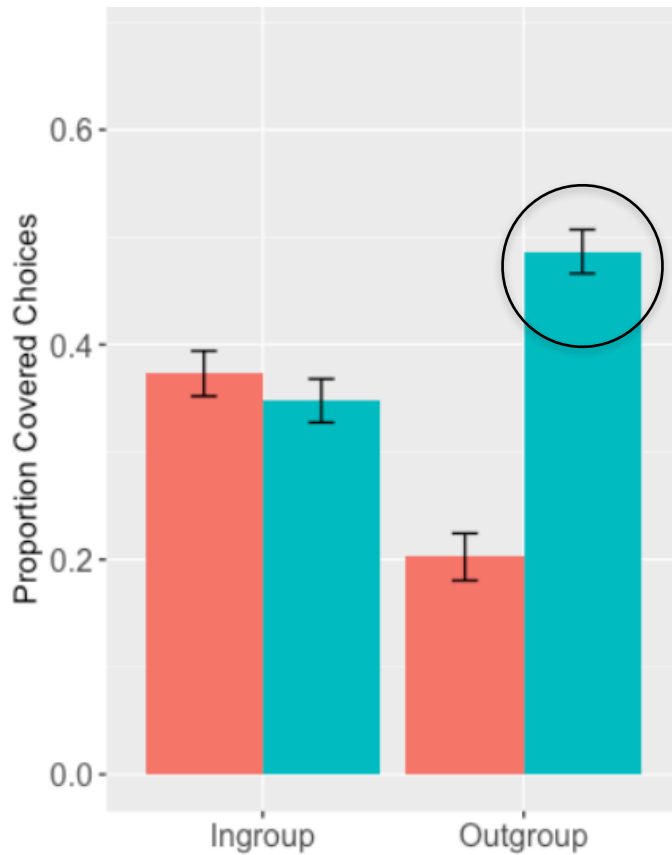


Screen choice by Speaker Identity

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In sum

- Utterance from Nerdy speakers *are* interpreted more precisely than utterances from Chill ones
 - This effect is limited to contexts in which participants' and speakers' identity do not align with respect to these categories
- Reasoning about imprecision is informed by both the social identity of speakers and comprehenders

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The broader picture

The broader picture

Can social meaning shape meaning interpretation?

The broader picture

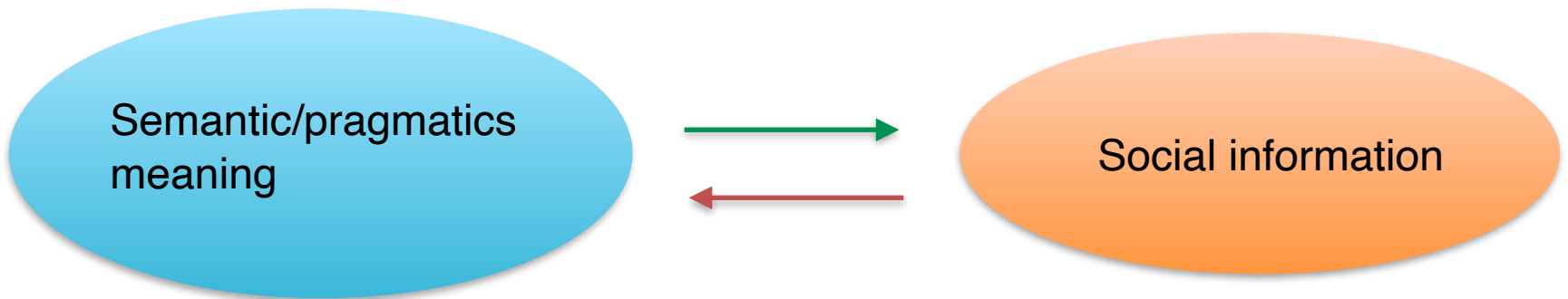
Can social meaning shape meaning interpretation?

Persona-level information affects how comprehenders resolve meaning indeterminacy

The broader picture

Can social meaning shape meaning interpretation?

Persona-level information affects how comprehenders resolve meaning indeterminacy



Emerging questions

How can studying the effect of social meaning on imprecision resolution help us shed light on:

→ The nature of (im)precision

→ The processing of (im)precision

The nature of imprecision

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Pragmatic accounts:

Laserson 1999, Lauer 2013, Leffel, Kennedy and Xiang 2016, Klecha 2017

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The nature of imprecision

Pragmatic accounts:

Laserson 1999, Lauer 2013, Leffel, Kennedy and Xiang 2016, Klecha 2017

Semantic accounts:

Krifka 2009, Sauerland and Stateva 2007, 2011, Solt 2014

Does social meaning affect truth judgments or broader felicity judgments?

The nature of imprecision

Covered Screen task:

Choices indicate fit between facts and descriptions, but not whether statements are adjudicated true or false.

The nature of imprecision

Covered Screen task:

Choices indicate fit between facts and descriptions, but not whether statements are adjudicated true or false.

Truth-value Judgment Task:

"Rachel and Arthur are looking for a one-way plane ticket"



This the screen Alex/Arthur's is looking at:



Imprecise

Alex/Arthur's response is:

True



False



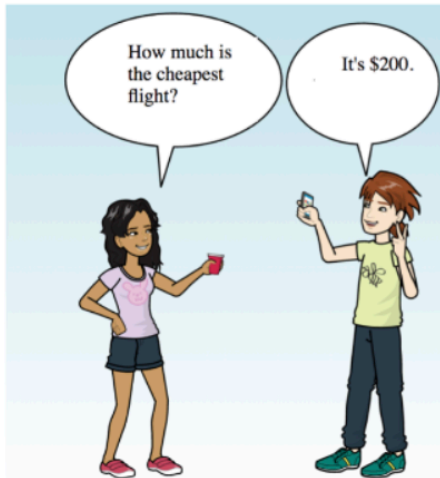
The nature of imprecision

Covered Screen task:

Choices indicate fit between facts and descriptions, but not whether statements are adjudicated true or false.

Truth-value Judgment Task:

"Alex and Eva are looking for a one-way plane ticket"



This the screen Alex/Arthur's is looking at:



Imprecise

Alex/Arthur's response is:

True



False



Processing imprecision

What is the time-course of integrating social information in imprecision resolution?

Visual world paradigm study

- How early social meaning is considered
- How comprehenders social meaning and other contextual cues

Looking ahead

Looking ahead

→ Integrative view of semantic & social dimensions of meaning

(Acton and Potts 2014, Glass 2015, Beltrama & Staum Casasanto 2017, Burnett 2017, 2019, Henderson and McCready 2020, Jeong 2019, Acton 2019, Mahler 2019, Thomas 2021, Lee 2021)

Looking ahead

→ Integrative view of semantic & social dimensions of meaning

(Acton and Potts 2014, Glass 2015, Beltrama & Staum Casasanto 2017, Burnett 2017, 2019, Henderson and McCready 2020, Jeong 2019, Acton 2019, Mahler 2019, Thomas 2021, Lee 2021)

→ Novel angle on the link between social information and language processing

(Niedzelski 1999, Staum Casasanto 2008, Goslin et al. 2012, Squires 2013, Sumner et al. 2013, Levon and Buchstaller 2014, D'Onofrio 2016, 2017, Mengesha and Zellou 2018, Weissler and Brennan 2020)

Thanks!

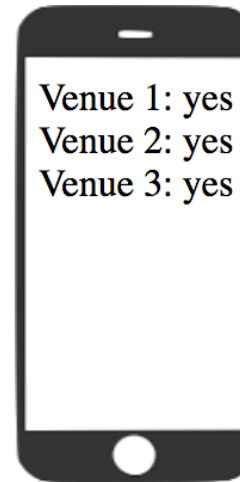


Filler

"Becky and Tyler are looking for a venue for an event"



Which phone is Tyler looking at?



F



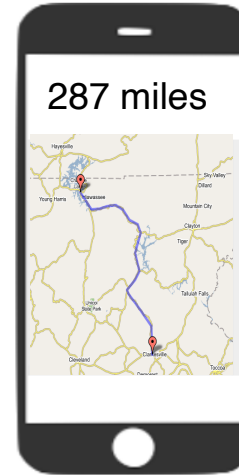
J

Distance

"Rachel and Arthur need to go to a wedding and want to rent a car"



Which phone is Arthur looking at?



F



J

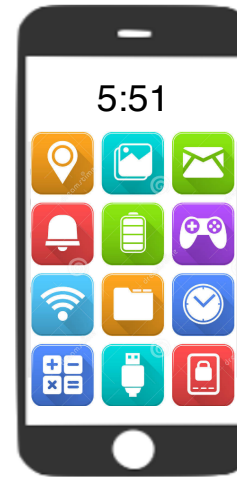
Near-match

Time

"Rachel and Arthur want to go for a walk before it gets dark"



Which phone is Arthur looking at?



F



J

Near-match