Personae and pragmatic reasoning: How speaker information affects imprecision resolution
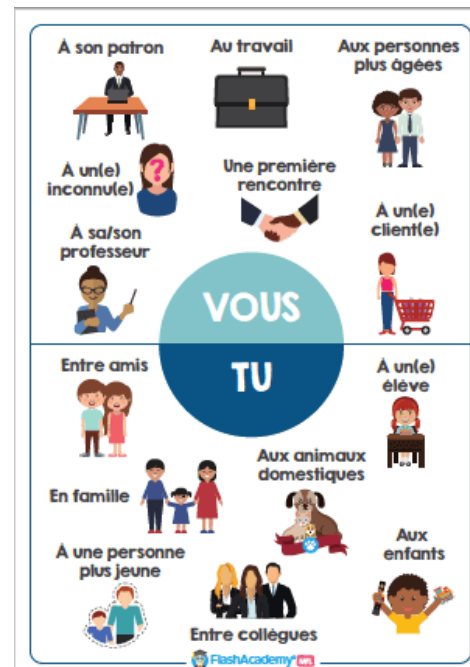
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Scales, degrees and implicature:
Novel synergies between semantics and pragmatics
May 27, 2021

Social meaning

Linguistic utterances convey information about speakers' identity, group membership, and social relationships

A widely investigated topic

Sociolinguistics and linguistic anthropology

Labov 1963, Eckert 1989, 2008, Irvine and Gal 2000, Agha 2003, Silverstein 2003, Bucholtz and Hall 2005, Coupland 2007, Campbell-Kibler 2007, Mendoza Denton 2008, Podesva 2011, Levon 2014

Psycholinguistics

Niedzielski 1999, Staum Casasanto 2008, Goslin et al. 2012, Squires 2013, Sumner et al. 2013, D'Onofrio 2016, Mengesha and Zellou 2018, Weissler and Brennan 2020

Pragmatics

→ Politeness

Terkourafi 2015; Bonnefon et al. 2009, Mazzarella et al. 2018, Mazzarella and Gotzner 2021

→ Game-theoretic approaches

Burnett 2017, 2019, Henderson and McCready 2020, Yoon et al. 2016, 2021

Today

How do we infer social meanings from semantic/pragmatic meanings?

How do we rely on social meanings to resolve meaning at the semantic/pragmatic level?

Roadmap

1. Inferring social meanings

2. From social meaning to meaning resolution

3. The broader picture

Integrating perspectives

Social meaning can be inferred from/linked to the semantic/pragmatic properties of linguistic forms

Intensifiers, modals, pronouns, quantifiers

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

Semantic/pragmatics meaning → Social meaning
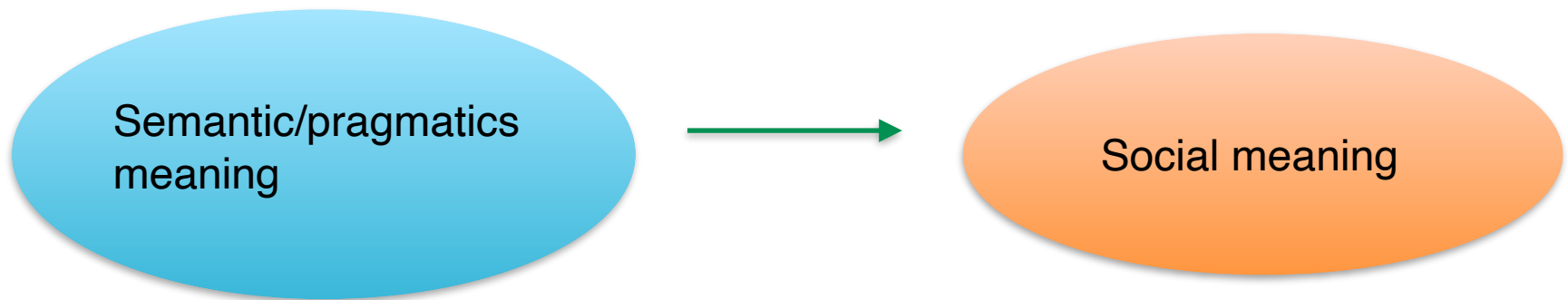
Intensifiers

The glass is _totally_ full.   Compositionally supplied scale

Mary is _totally_ coming.   Speaker's attitude scale

- Speakers perceived as: young, friendly, excitable

- Similar patterns for other intensifiers (Italian *-issimo*)

Beltrama and Staum Casasanto 2017, 2021

(Im)precision

Certain expressions allow for approximate readings.
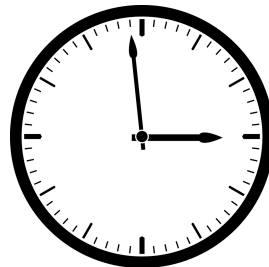
It's 3 o' clock!

Wittgenstein 1955, Austin 1961, Lewis 1979, Pinkal 1995; Lasersohn 1999; Krifka 2007; Kennedy 2007; Sauerland and Stateva 2007, Cummins et al. 2012; Lauer 2013; Solt 2014; Burnett 2014; Leffel, Kennedy and Xiang 2016; Klecha 2017; Aparicio 2017

Tracking precision

The trip takes 19 minutes.

The trip takes 20 minutes.

Users of precise numbers perceived as:

Positive: *intelligent, educated, articulate*

Negative: *uptight, obsessive, pedantic,*

Beltrama 2018, Beltrama, Solt and Burnett 2021

In sum

- Listeners infer social meanings from different semantically contentful expressions

- Precision and scalarity are productive domains for the emergence of these inferences

- These inferences are modulated by the logical and pragmatic properties of the linguistic forms

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The reverse perspective

Semantic/pragmatics meaning → Social meaning

?
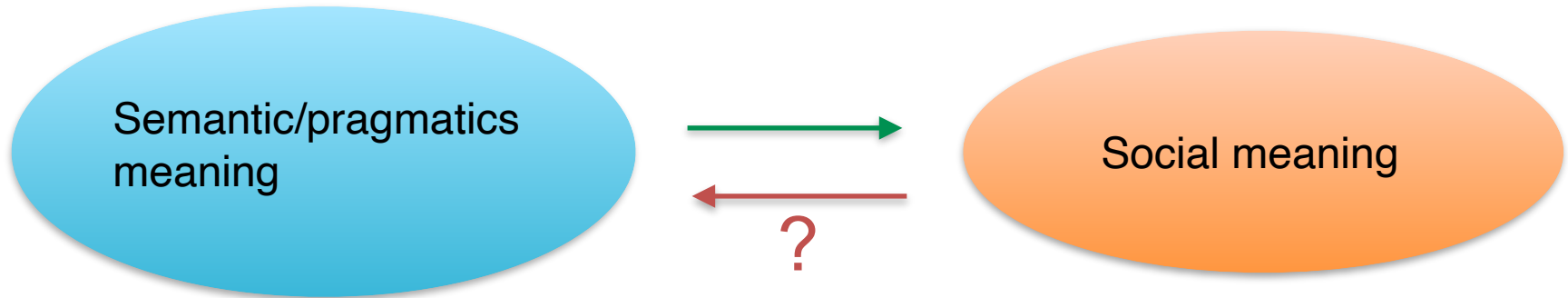
Can social meaning shape meaning interpretation?

What we know

Pragmatic reasoning and computation of scalar inferences shaped by:

- Politeness considerations

  Terkourafi 2003, 2015; Culpeper 2015, Bonnefon et al. 2009, Mazzarella et al. 2018, Mazzarella and Gotzner 2021

- Demographic traits (native vs. non-native)

  Fairchild and Papafragou 2018, Fairchild er al. 2020

How about other domains of meaning resolution?

Indeterminacy

It's 3 o'clock!

?

Time 1: 3:00

Time 2: 2:58—3:02

Time 3: 2:55—3:05
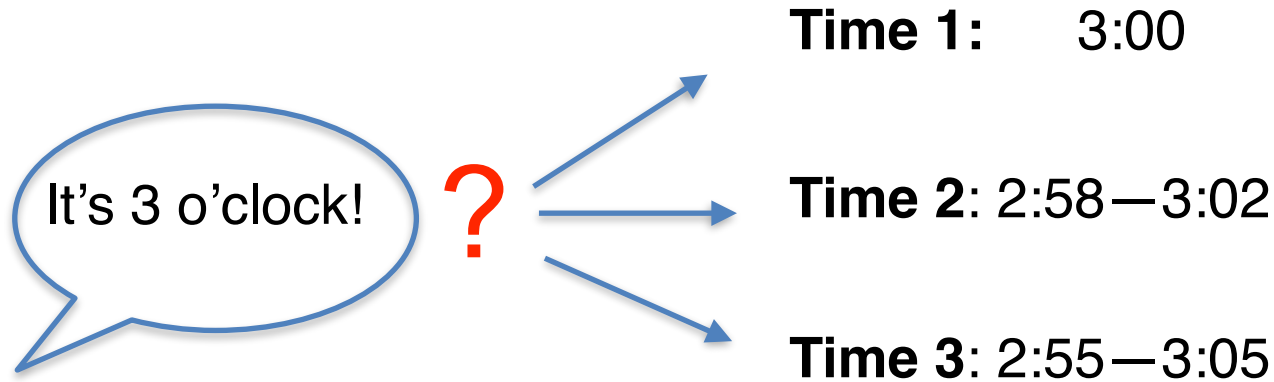
Speech situation (Kennedy 2007)

Conversational goals (Lasersohn 1999, Aparicio 2017)

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

Indeterminacy
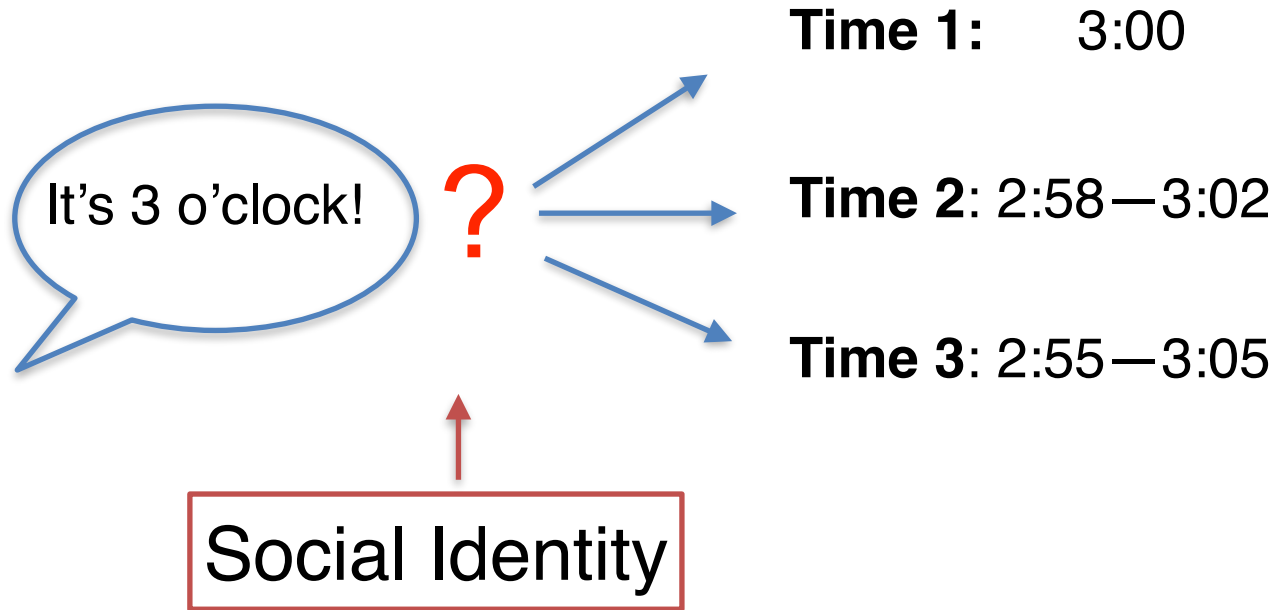
Identity contrasts

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

→ A nerd.

Identity contrasts

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

→ A chill person.

Normed in pre-study (ask me for details in Q&A!)
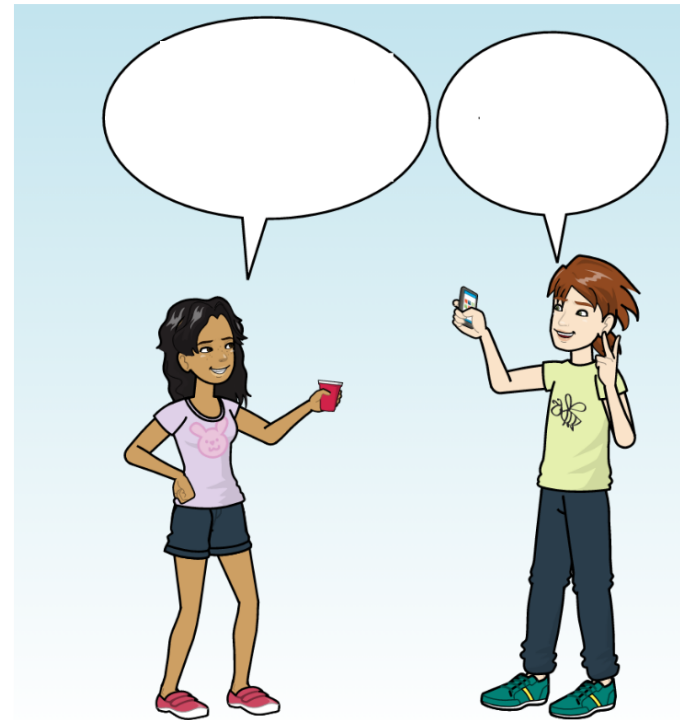
The covered screen task

"Rachel and Arthur are looking for a one-way plane ticket"
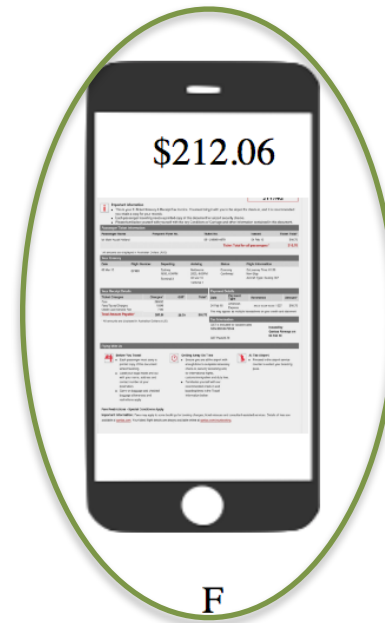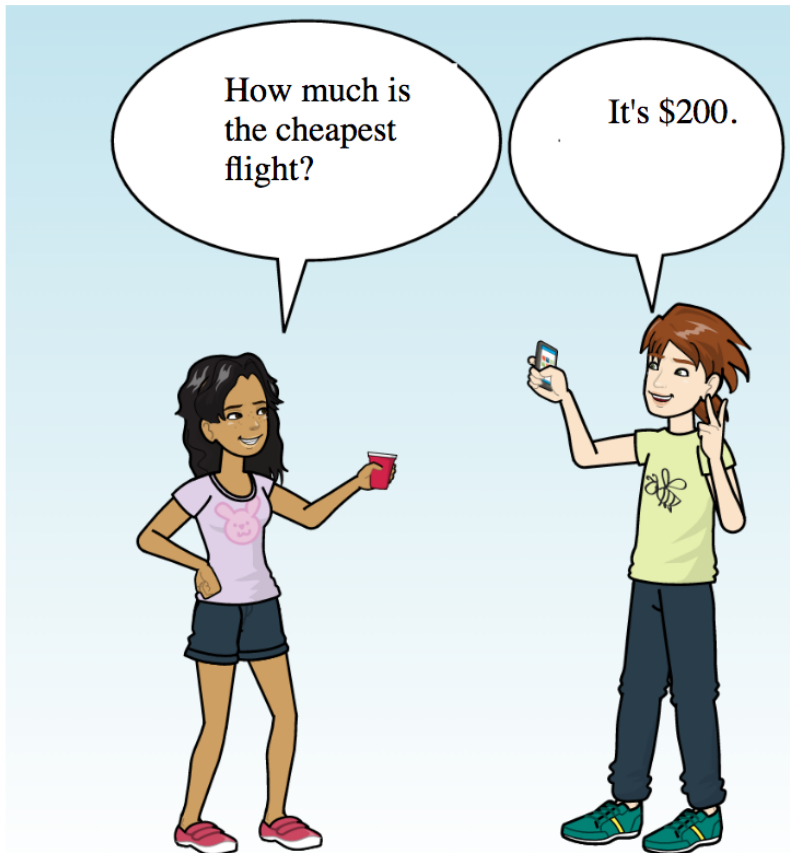
Which phone is Arthur looking at?

Match

The covered screen task

"Rachel and Arthur are looking for a one-way plane ticket"
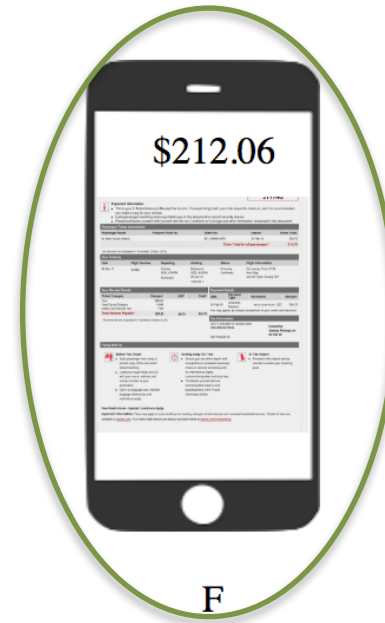
Which phone is Arthur looking at?

$650.06
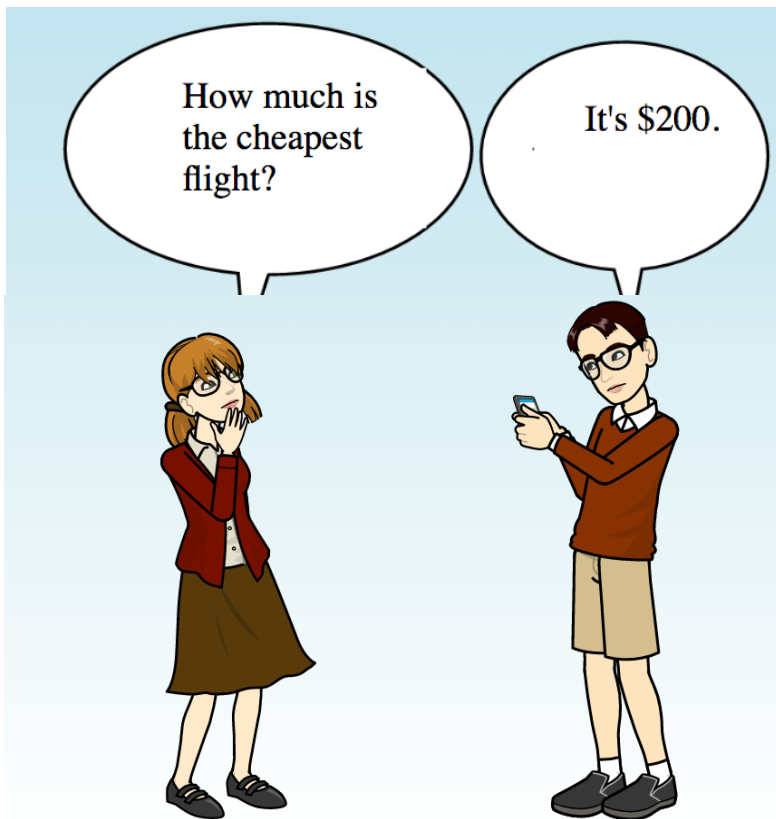
F

J

Mismatch

The covered screen task

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

Which phone is Arthur looking at?

Lenient

Strict

Imprecise

The covered screen task

Here's Alex and Eva having
a conversation.

Which phone is Arthur looking at?

F
Lenient

J
Strict

Imprecise

Design

- 24 items distributed in 6 lists with a Latin Square Design

    - 8 Cost (+/— $6/19)

    - 8 Distance (+/— 6/19 miles)

    - 8 Time (+/— 1/14 minutes)

- 24 fillers (underinformative, true, false)

- Social identity (Nerd vs. Chill): **between**-subjects;

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

Two sub-experiments

Experiment 1A

188 subjects recruited on Prolific

Age: 30.6

Gender breakdown: 84 F, 100 M, 4 Non-binary

Experiment 1B

133 subjects recruited from the UPenn UG subject pool

Age: 18-22

Gender breakdown: 99 F, 31 M, 3 Non-binary

Back to our question

Do listeners adjust their threshold of precision depending on the speaker's identity?

Our hypothesis:

Listeners should lean towards assigning **precise** interpretations with **precise** speakers.

→ in the Imprecise condition, higher rate of COVERED
choices with Nerdy speakers

Screen choice: Mixed-effects logistic regression

Screen choice by Speaker Identity
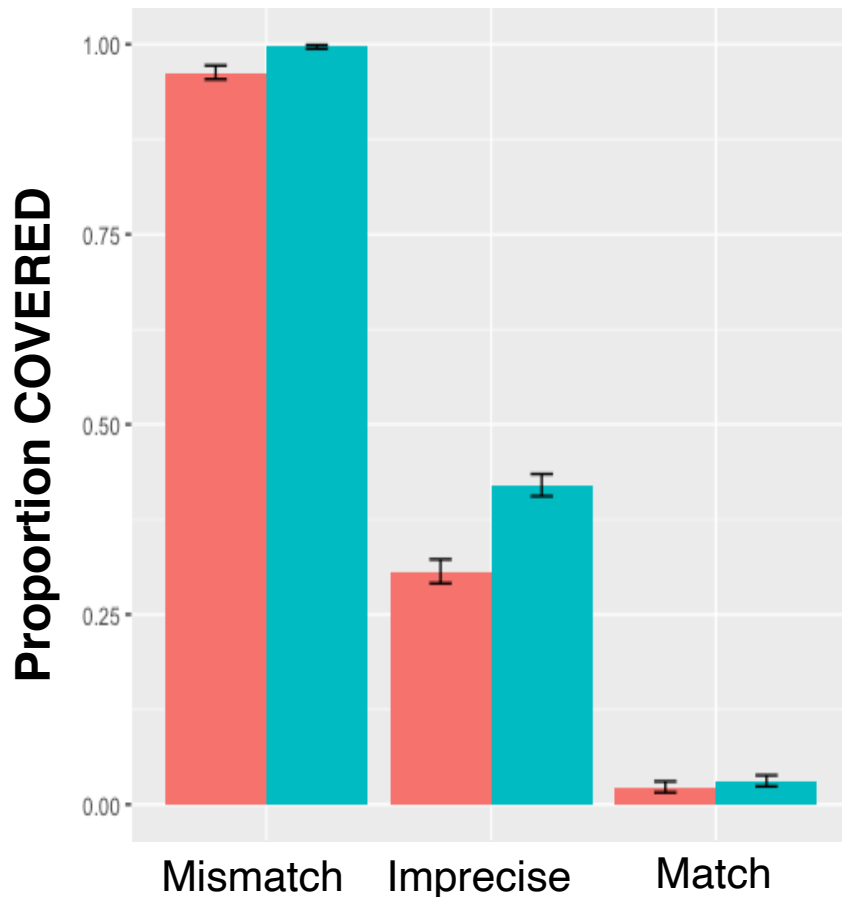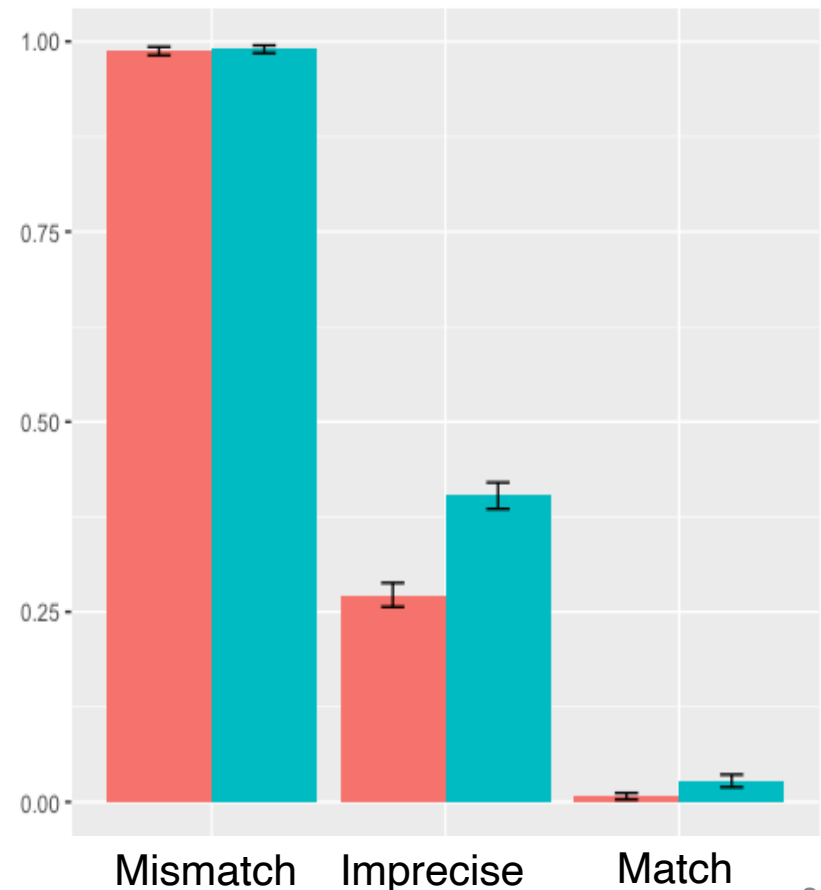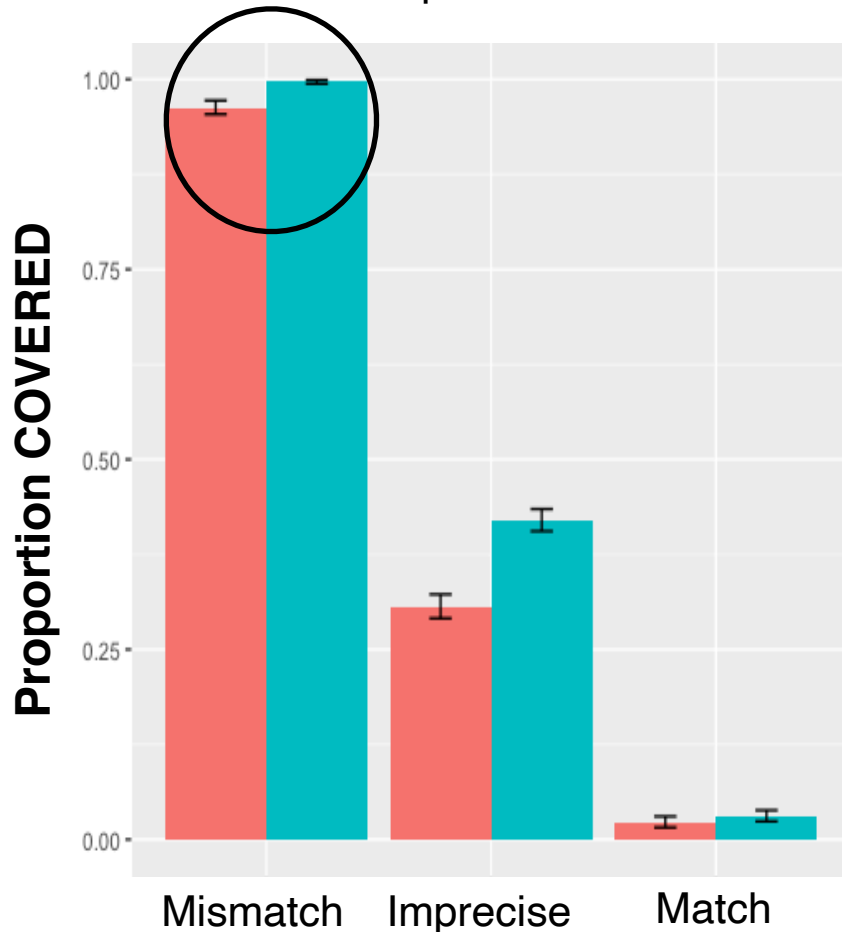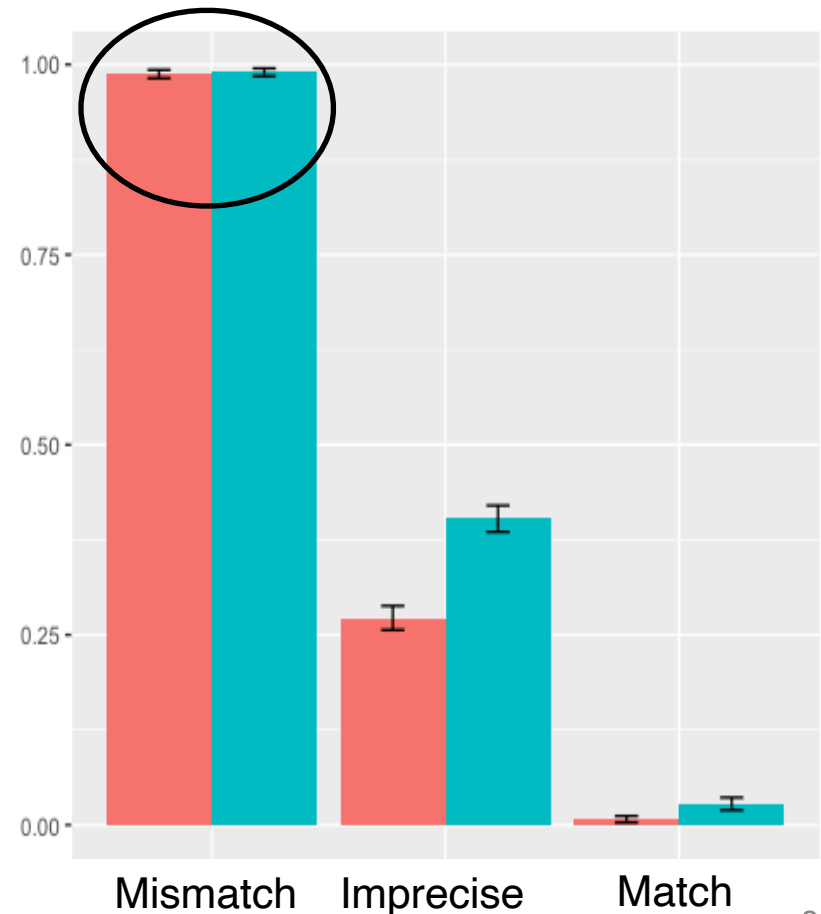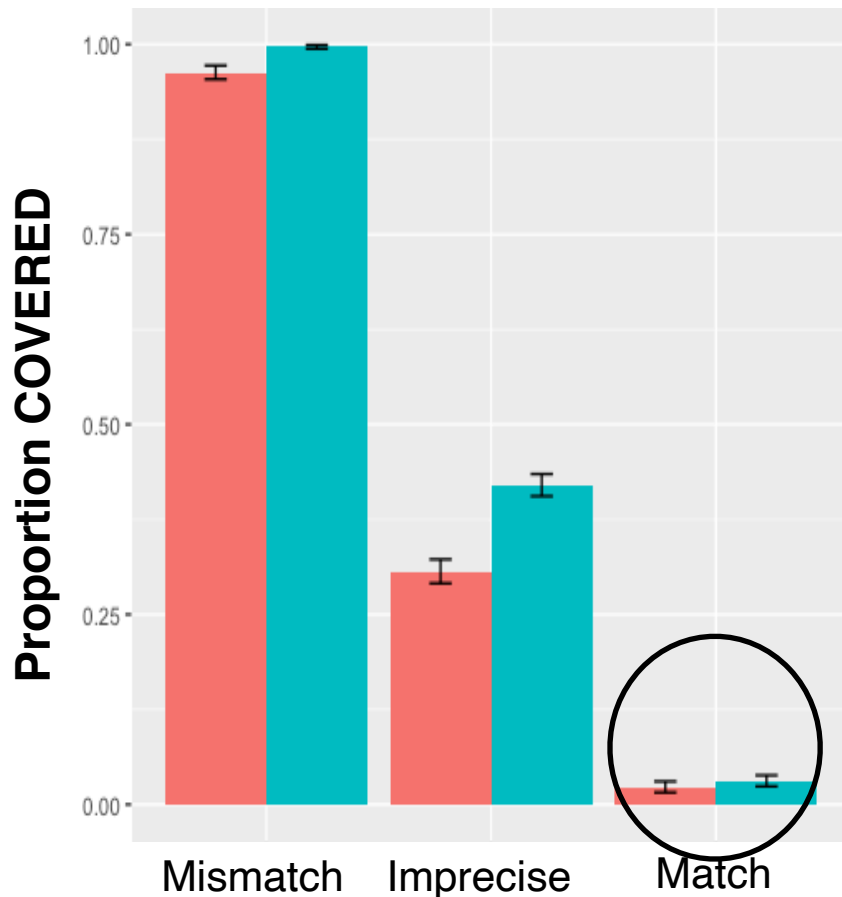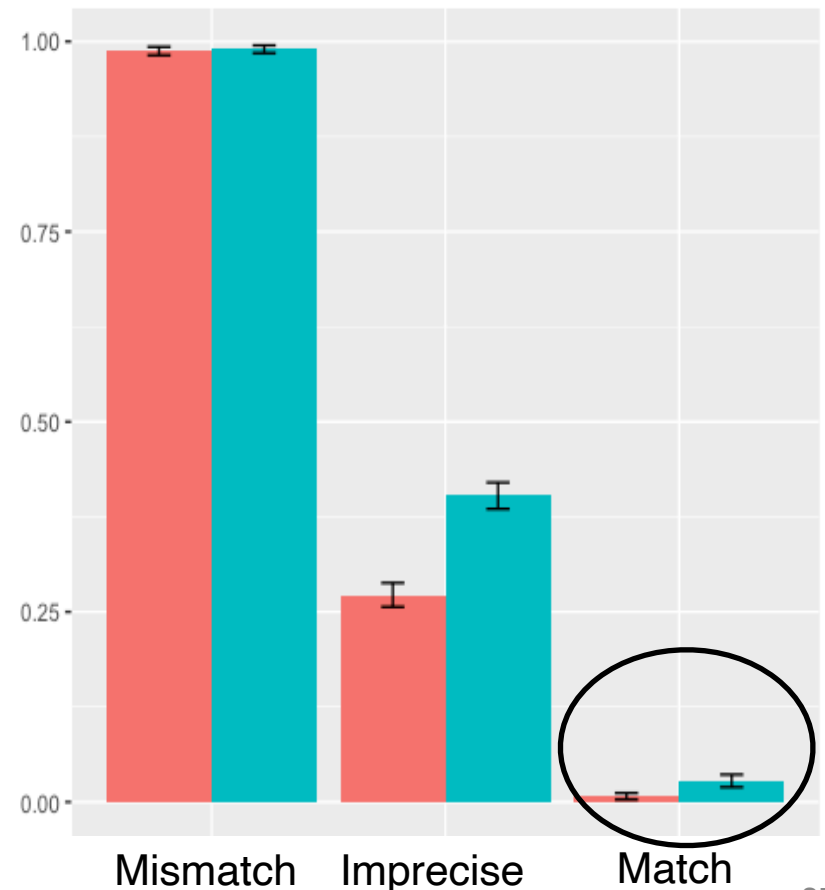
Screen choice by Speaker Identity
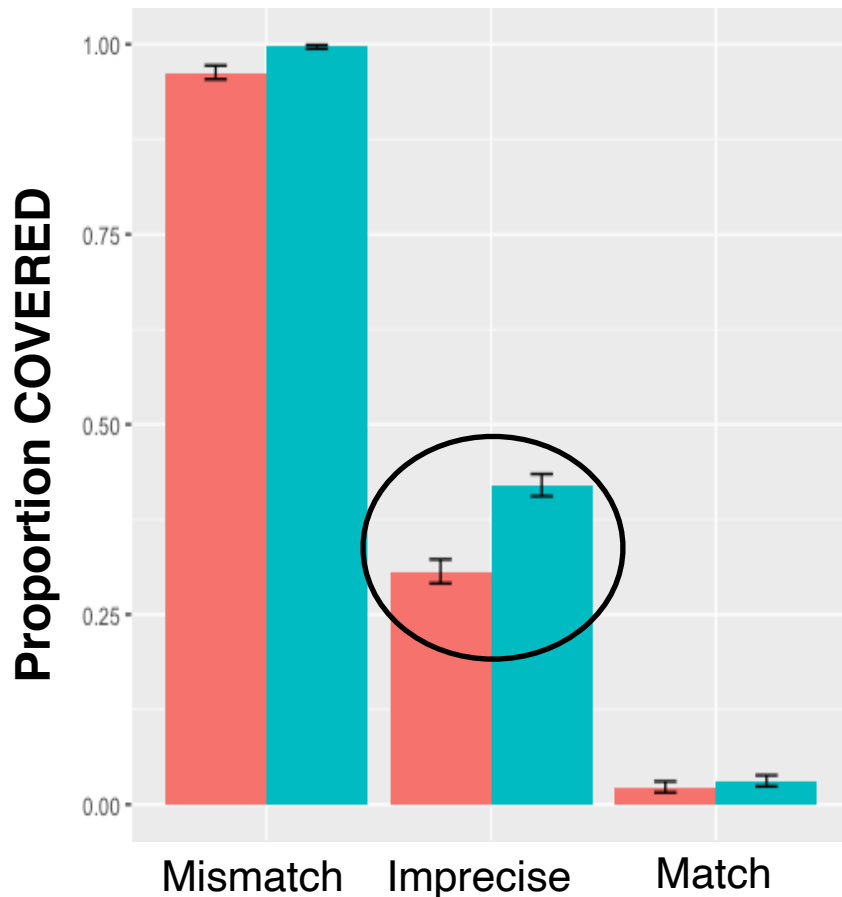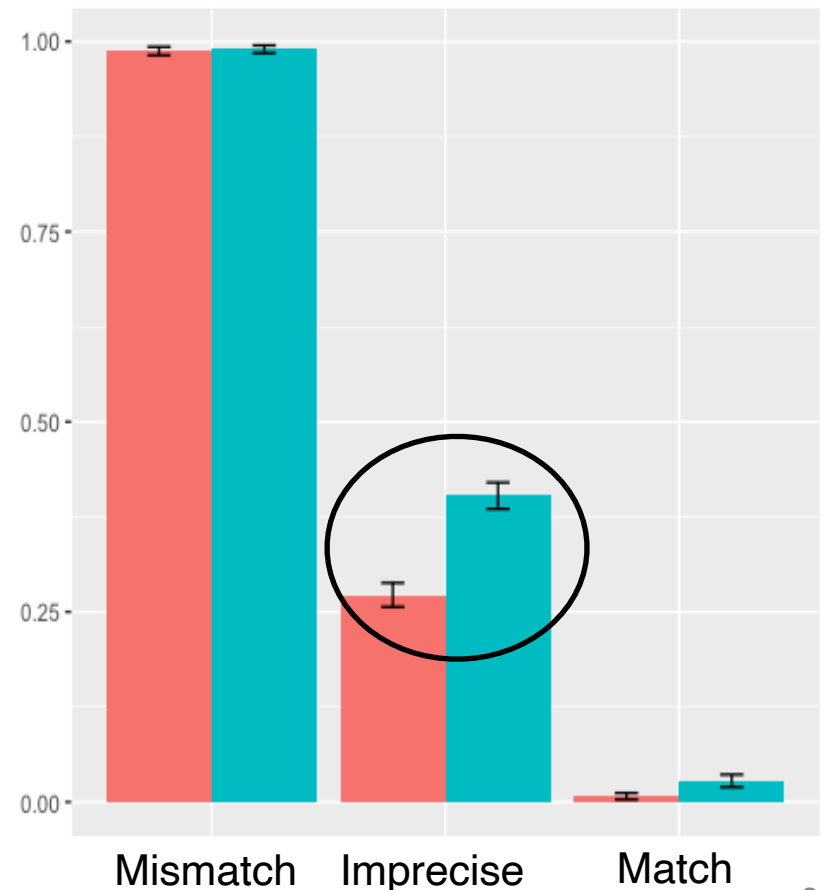
Screen choice by Speaker Identity

Screen choice by Speaker Identity

Screen choice by Speaker Identity
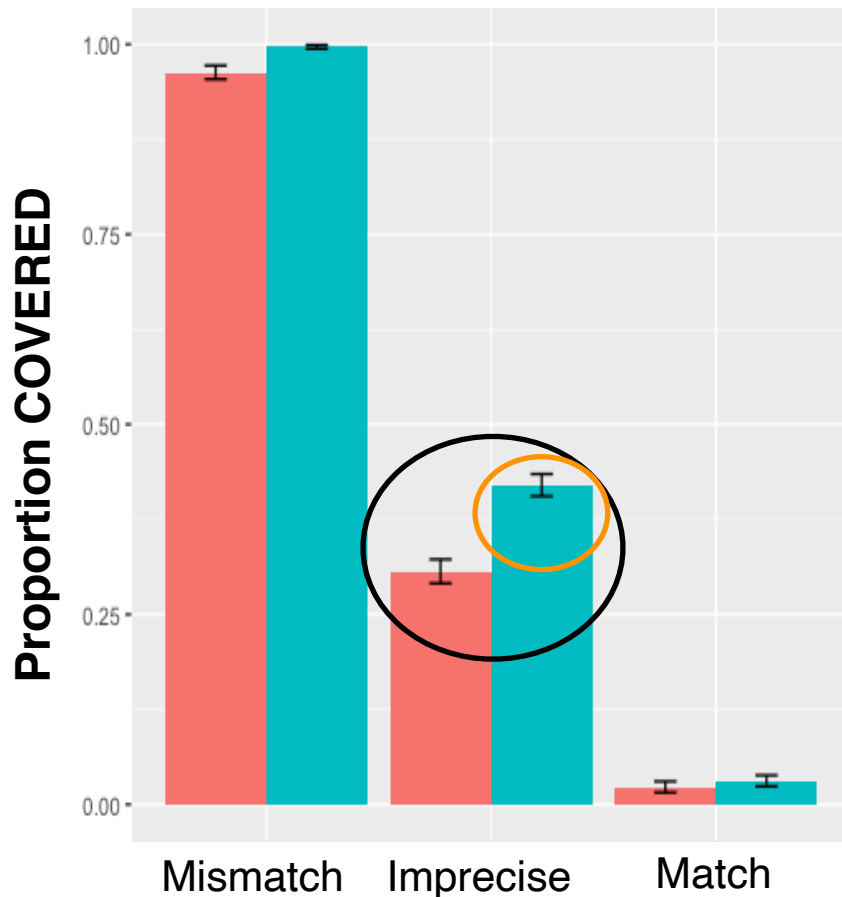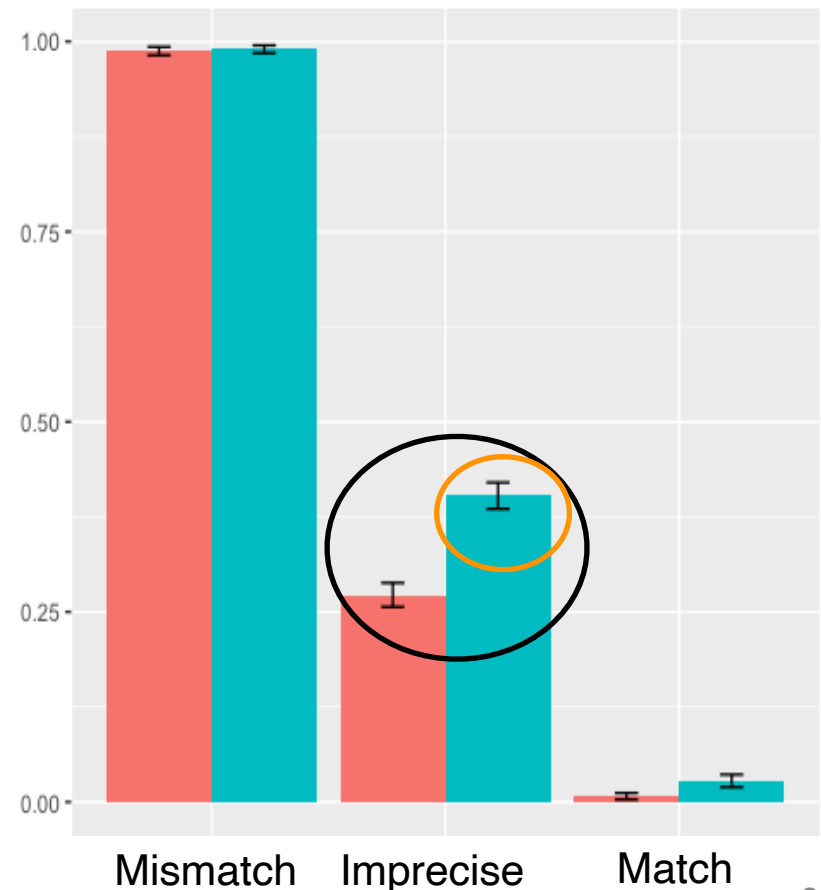
The role of participants' identity

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

- Identity construction is interactional rather than static

- Social evaluation of speech is perspective-dependent

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

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
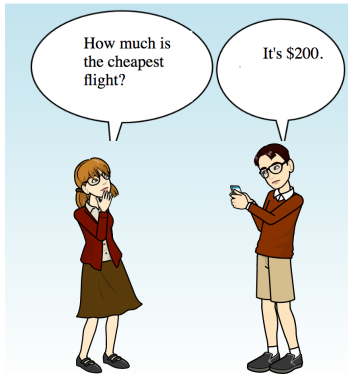
— Either Chill or Non-Chill

Creating groups

New Factor: **Ingroupness**

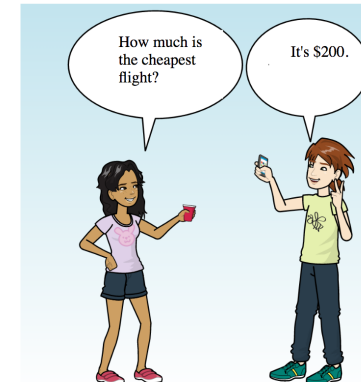**Ingroup:** Participant's and speaker's identity align

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

Nerdy speaker

Chill speaker

Nerdy Participant →Ingroup
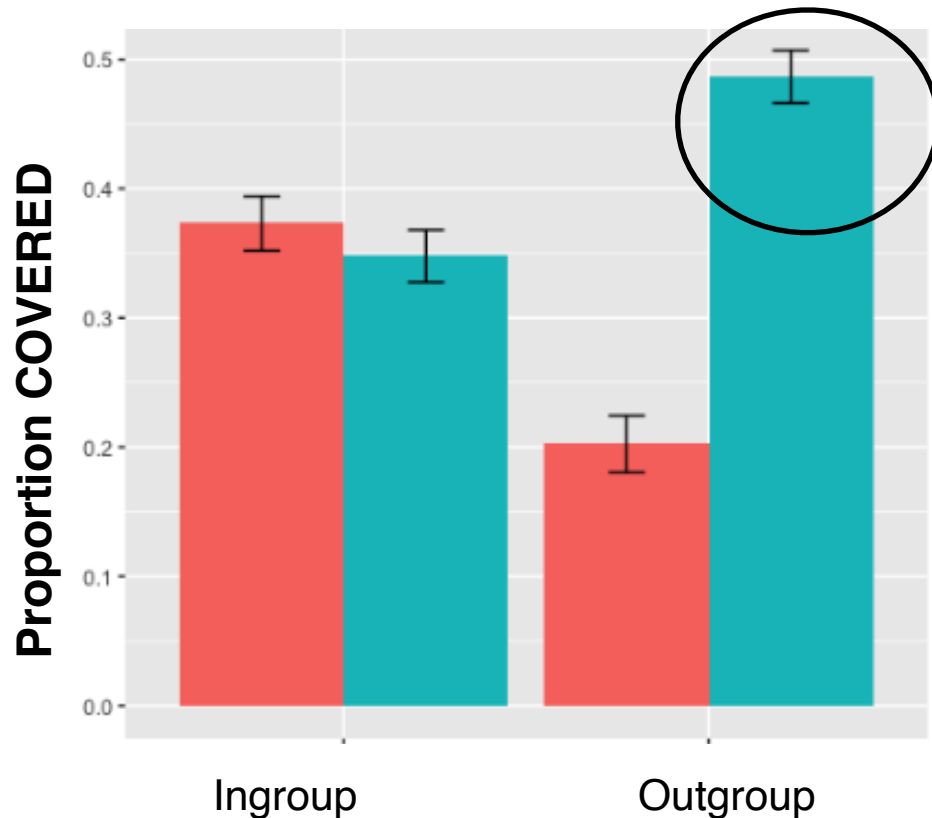Non-Nerdy Participant →Outgroup
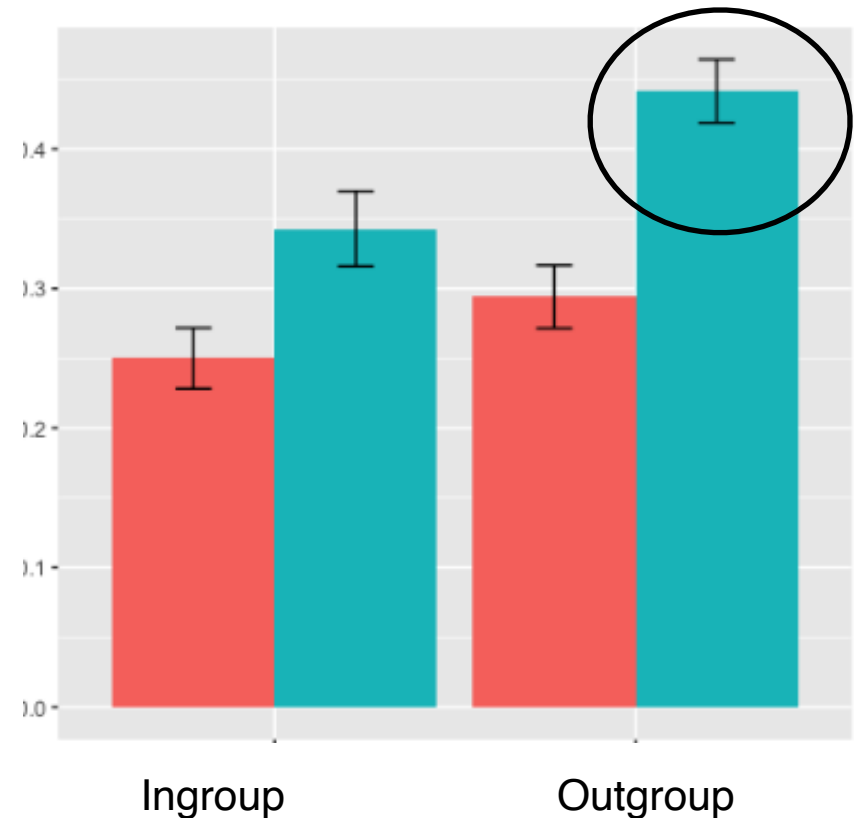
Chill Participant →Ingroup
Non-Chill Participant →Outgroup

Screen choice by Speaker Identity

In sum

- Utterance from Nerdy speakers *are* interpreted more precisely than utterances from Chill ones

- This effect is stronger in/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

Roadmap

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3. The broader picture

The broader picture

Can social meaning shape meaning interpretation?

Persona-level information affects how comprehenders resolve meaning indeterminacy

Semantic/pragmatics meaning

Social information
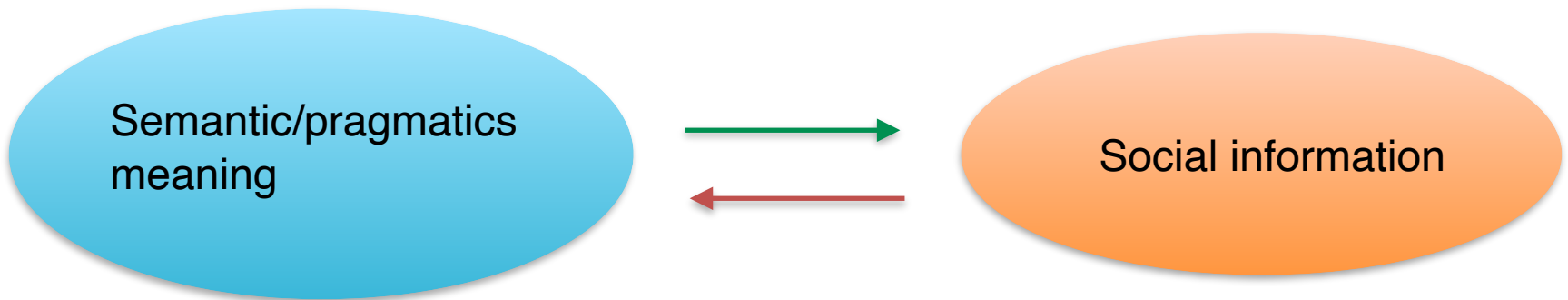
The grounding of the link

What motivates the association between levels of precision and different social personae and qualities?

1) Frequency of use

2) Independent semiotic processes

Iconicity

- Effortfulness in speech → effortfulness in life (Eckert 2008)

- Hyper-articulation, resistance to sound simplification
  → resistance to go along with the crowd (Bucholtz 2011)

Hypothesis: Precision foregrounds detail-orientedness as a starting point for subsequent ideological elaborations

Possible extension to intensity, scalar extremeness and the relative social qualities?

(See Podesva 2011 for similar hypothesis on pitch contours)

Looking ahead

→ Integrative view of semantic, pragmatic and social dimensions of meaning

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

Thanks!