

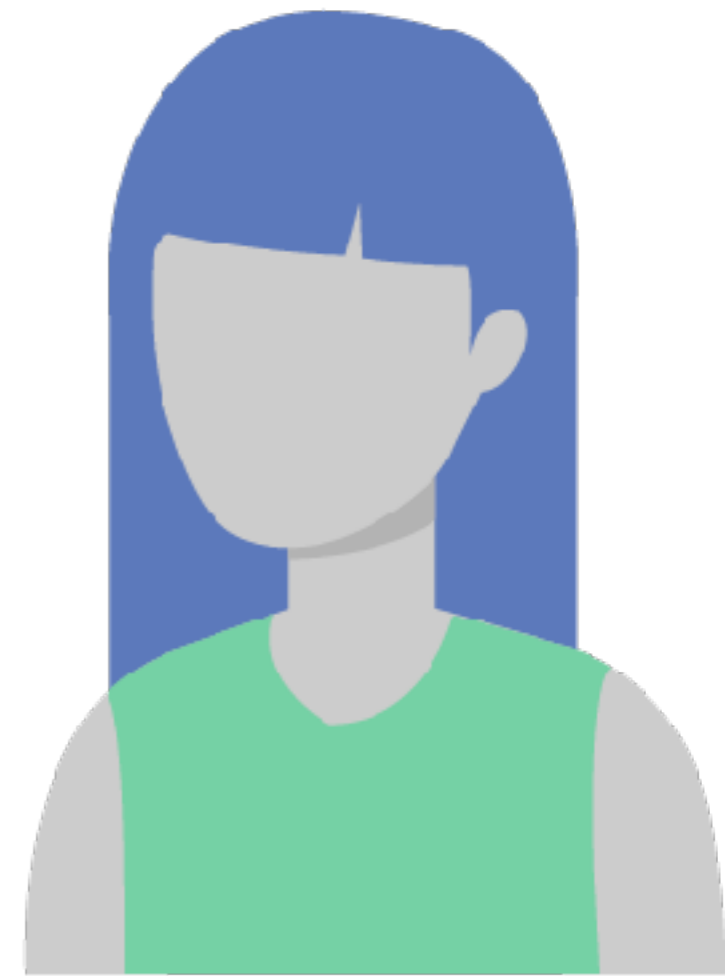
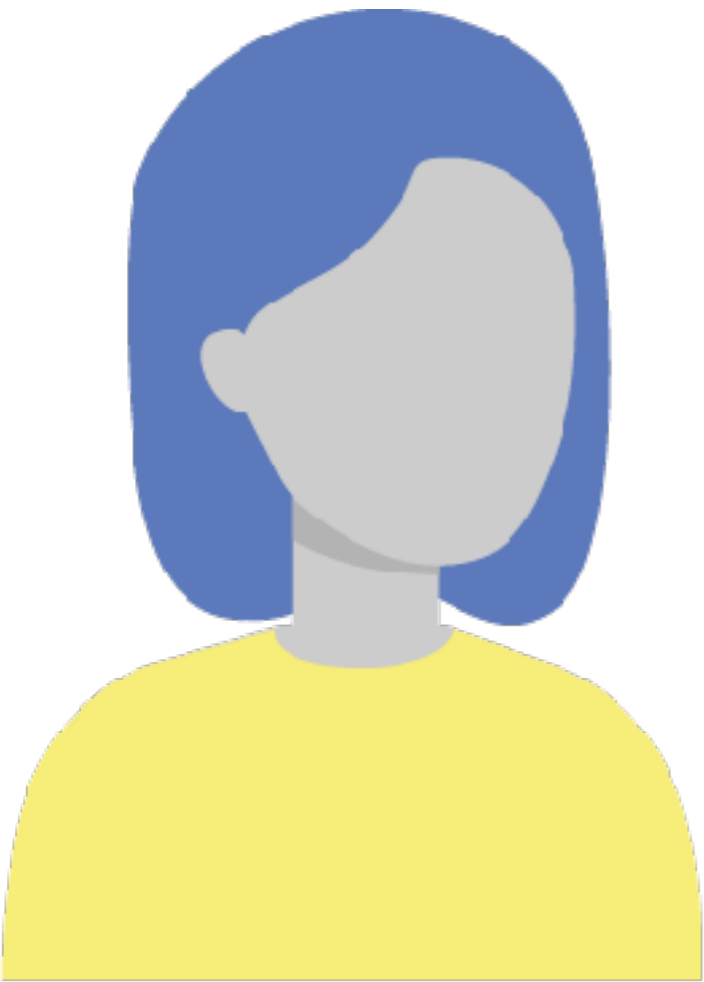
Talking, like, a Valley Girl?

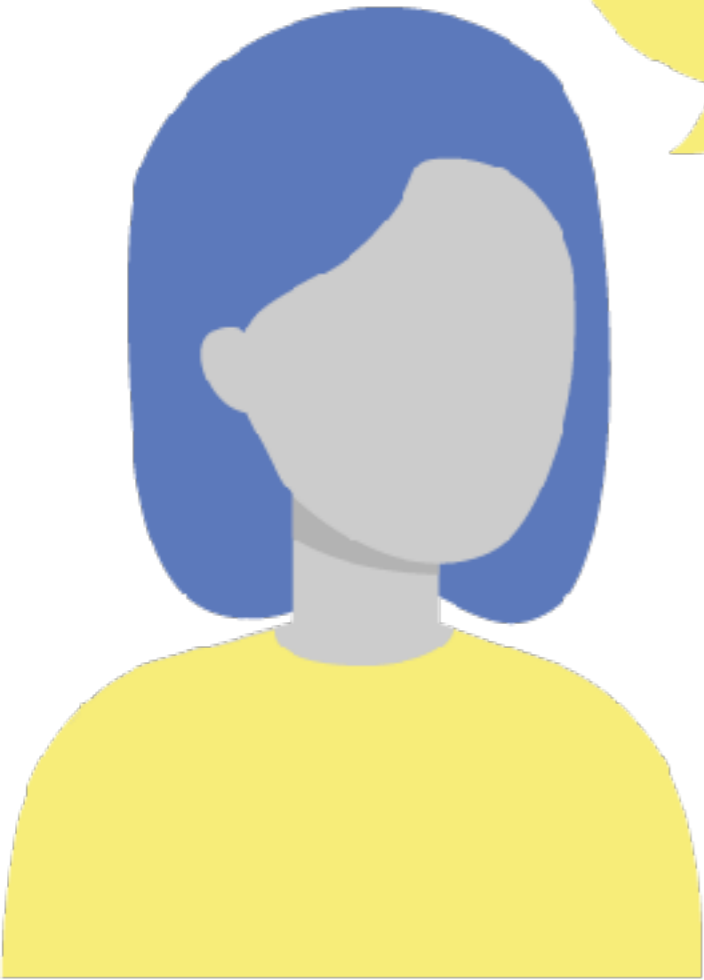
Online processing of sociolinguistic cues

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Stanford University

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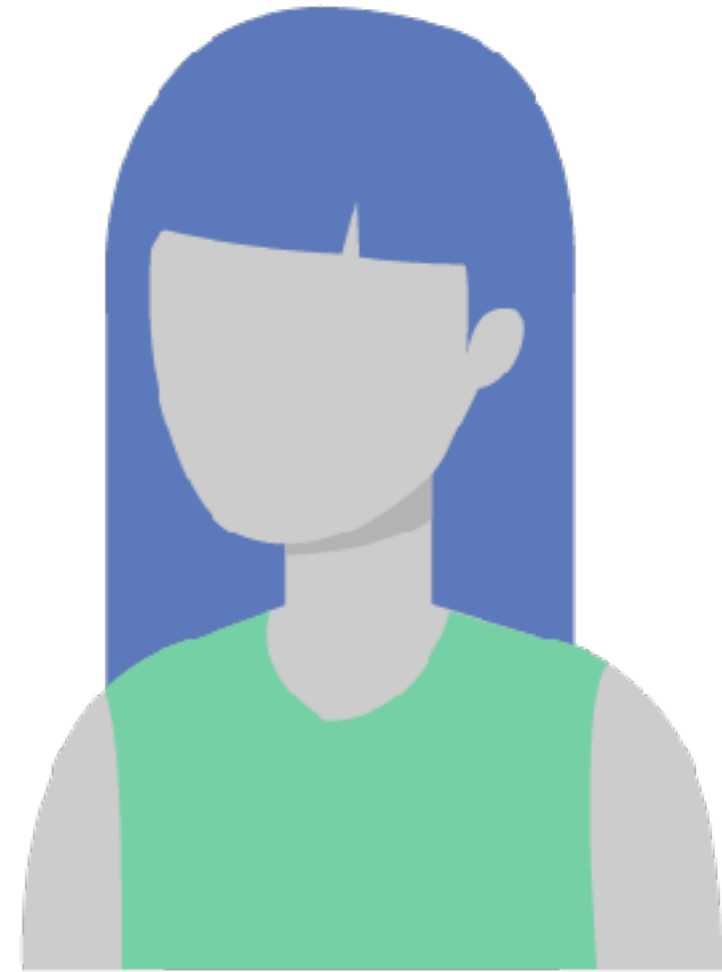


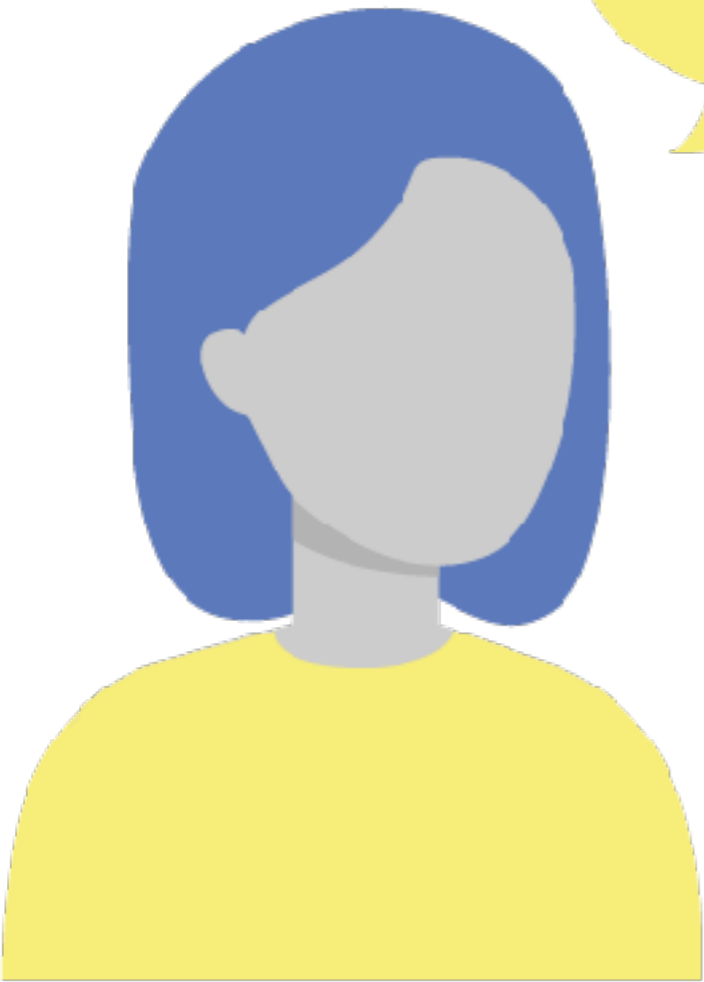


I'm watching
TV ↗



High Rising Terminal (HRT)
a.k.a 'uptalk'





I'm watching
TV ↗

↑
High Rising Terminal (HRT)
a.k.a 'uptalk'

Valley
Girl

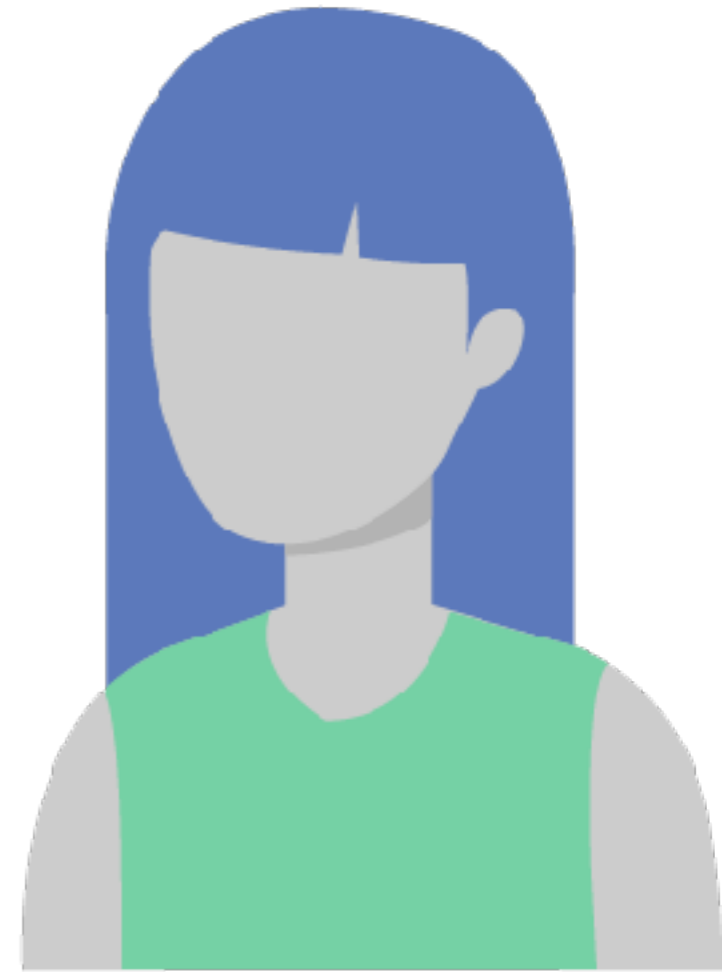




**I'm watchin'
TV**



**(ING)
-in' vs. -ing**

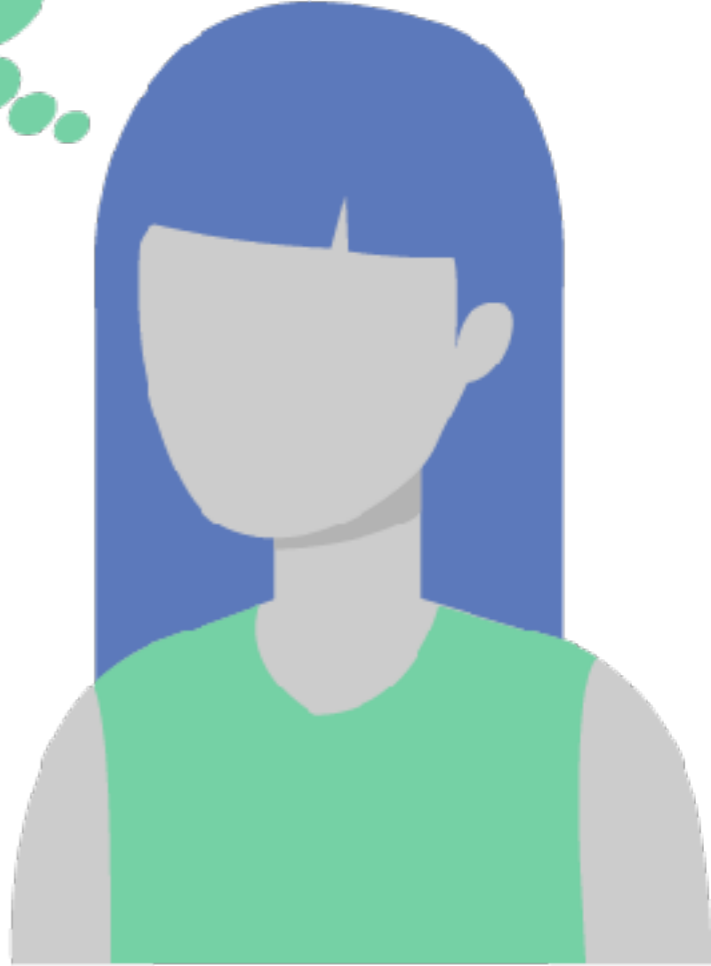




**I'm watchin'
TV**


↑
**(ING)
-in' vs. -ing**

**relaxed,
chill**









Listeners must integrate the meaning contributions of sociolinguistic cues with the other social impressions that arise when hearing someone talk

How and when do we do this?

2 eye-tracking experiments: (ING) and (HRT)

Four speaker voices

Exp. 1 (ING)

example stimuli

-in'	I'm talkin' about the beam
-ing	I'm talking about the beam

Exp. 2 (HRT)

example stimuli

HRT	I'm talking about the beam ↗
Decl.	I'm talking about the beam.

2 eye-tracking experiments: (ING) and (HRT)

Four speaker voices

Exp. 1 (ING)

example stimuli

-in' I'm talkin' about the beam
-ing I'm talking about the beam

Exp. 2 (HRT)

example stimuli

HRT I'm talking about the beam ↗
Decl. I'm talking about the beam.


2AFC visual world paradigm

“Select the speaker you think you heard”



Tough persona

 categorical speaker selections

 eye-movements, using WebGazer.js



Valley Girl persona

2 eye-tracking experiments: (ING) and (HRT)

Four speaker voices

Exp. 1 (ING)

example stimuli

-in' I'm talkin' about the beam
-ing I'm talking about the beam

Exp. 2 (HRT)

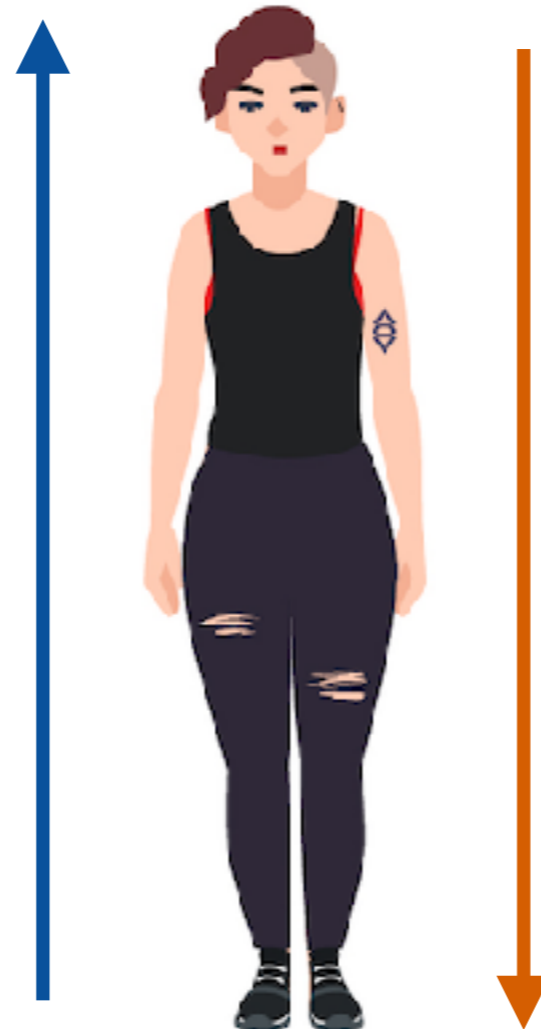
example stimuli

HRT I'm talking about the beam ↗
Decl. I'm talking about the beam.

Predictions

-in'

More Tough selections
More Tough looks after onset
(compared to **-ing**)

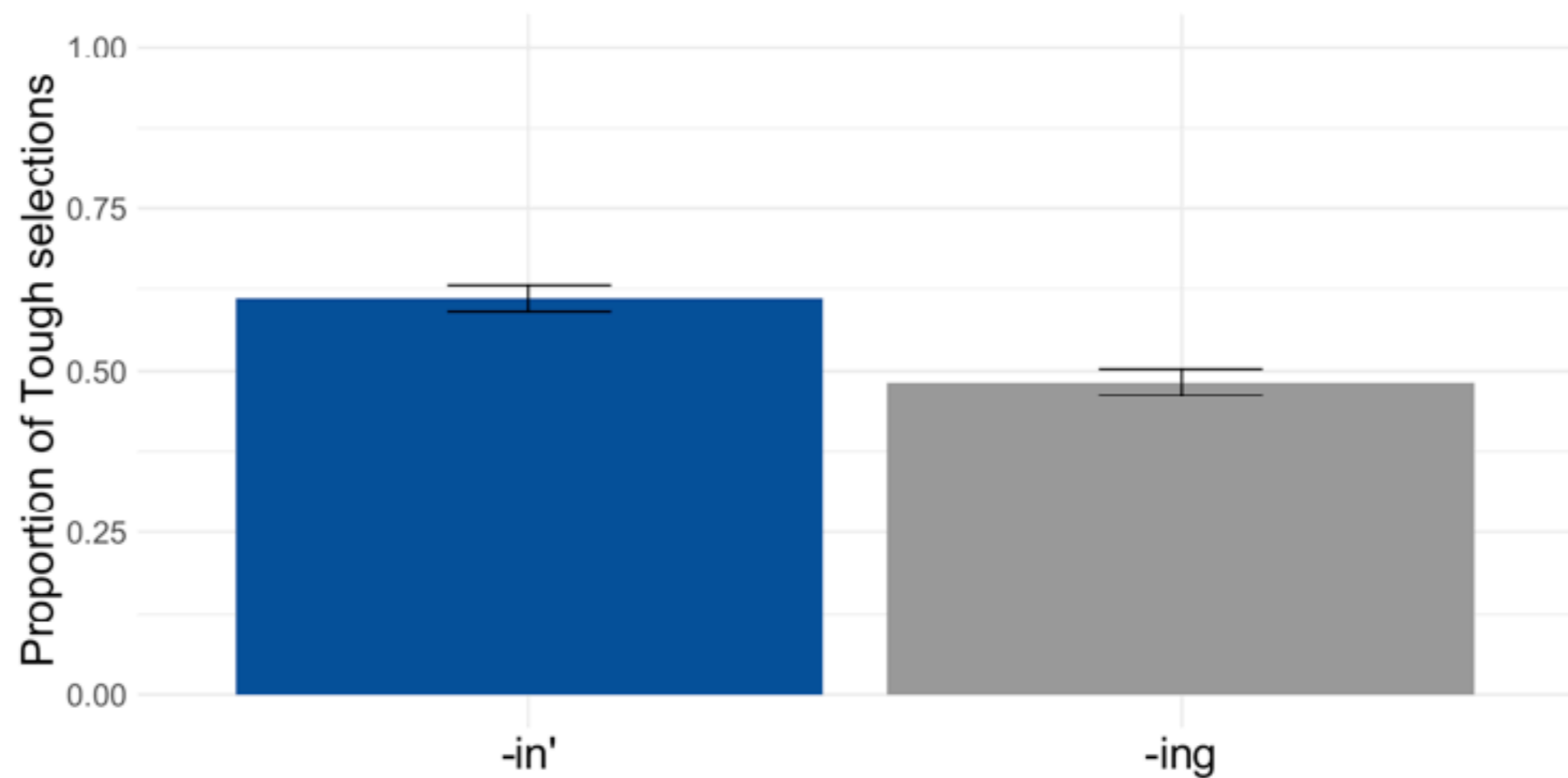


HRT

Fewer Tough selections
Fewer Tough looks after onset
(compared to **Decl.**)

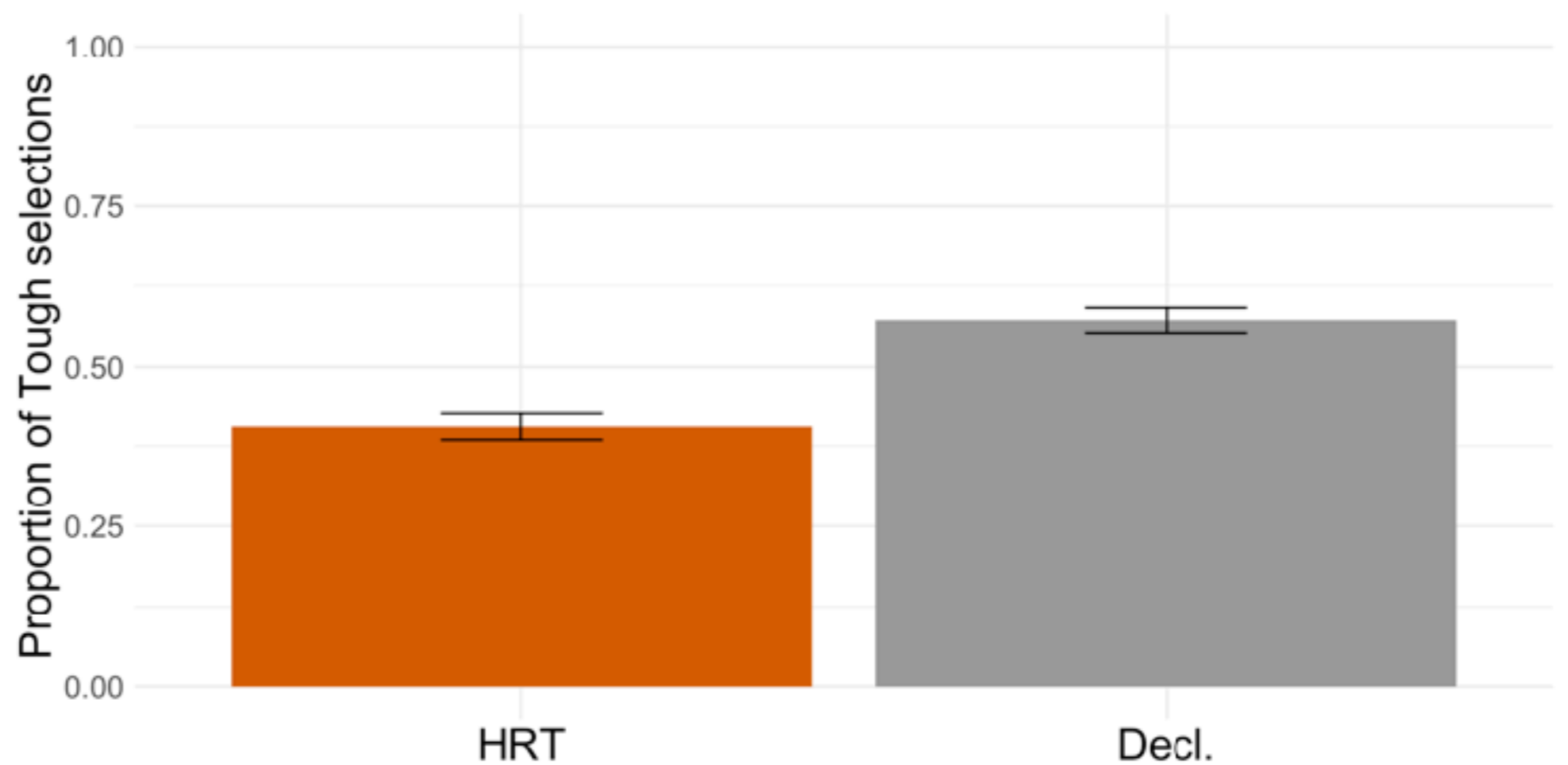
Exp. 1 (ING)

N = 322



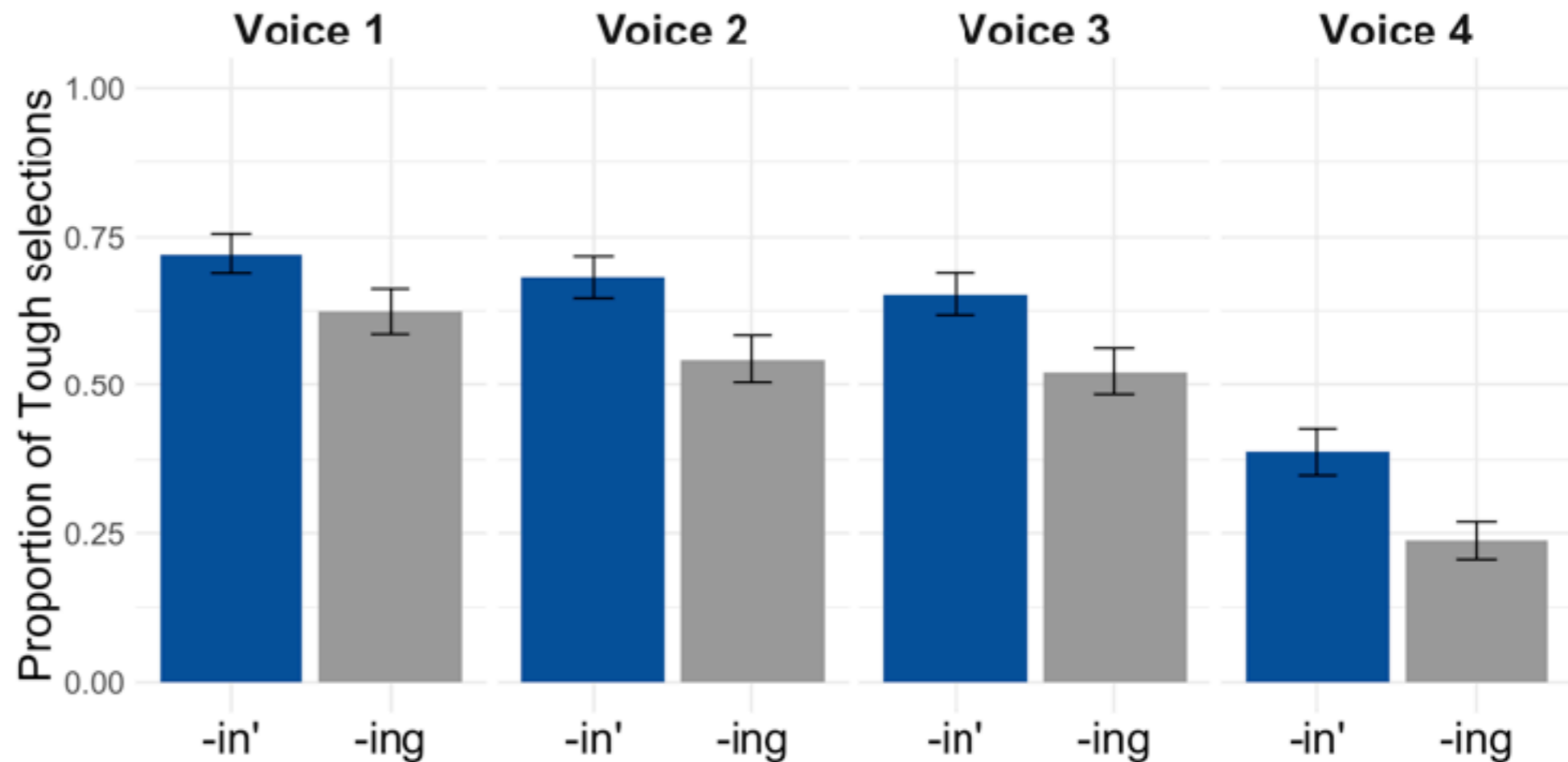
Exp. 2 (HRT)

N = 321



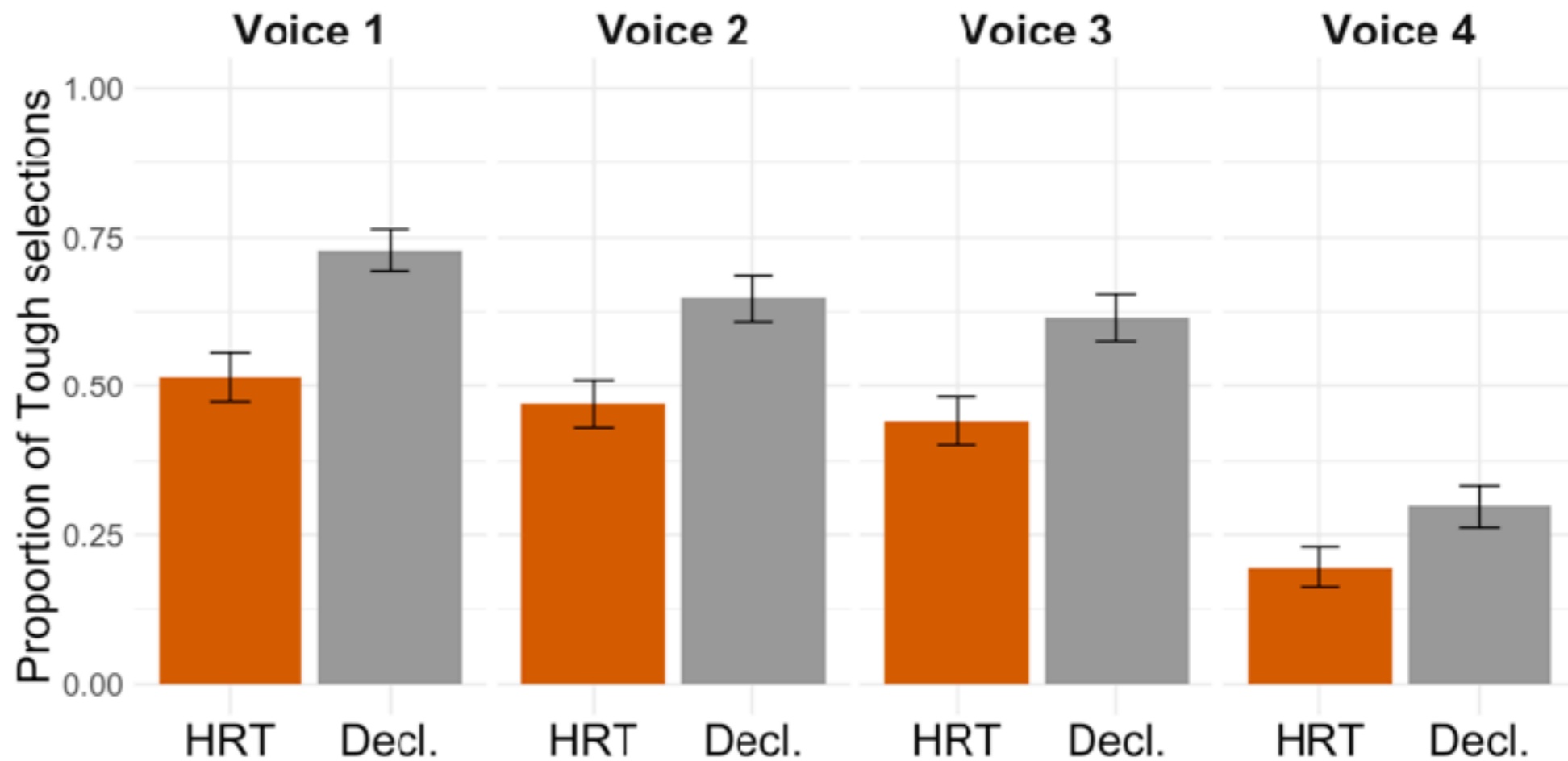
Exp. 1 (ING)

N = 322



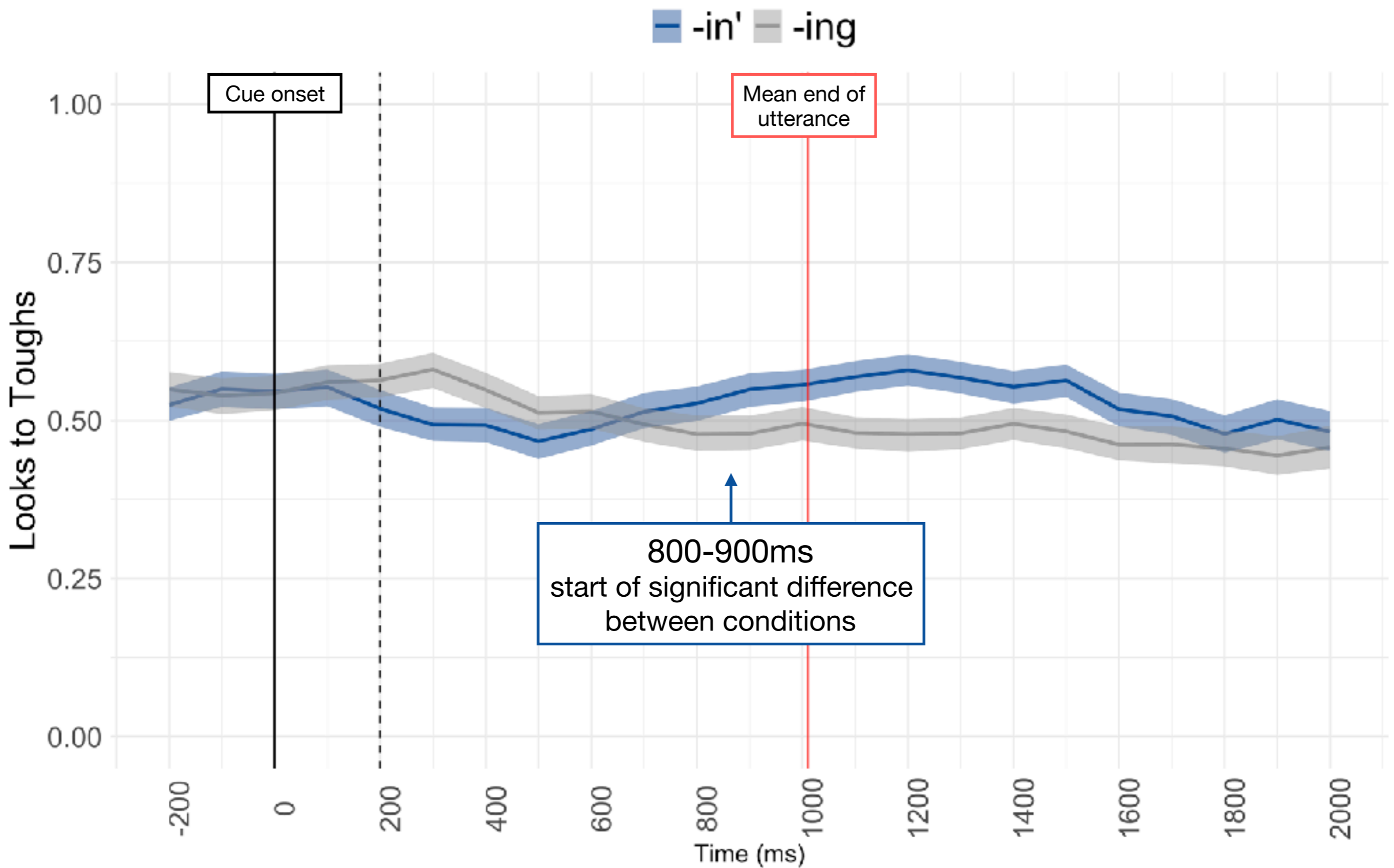
Exp. 2 (HRT)

N = 321



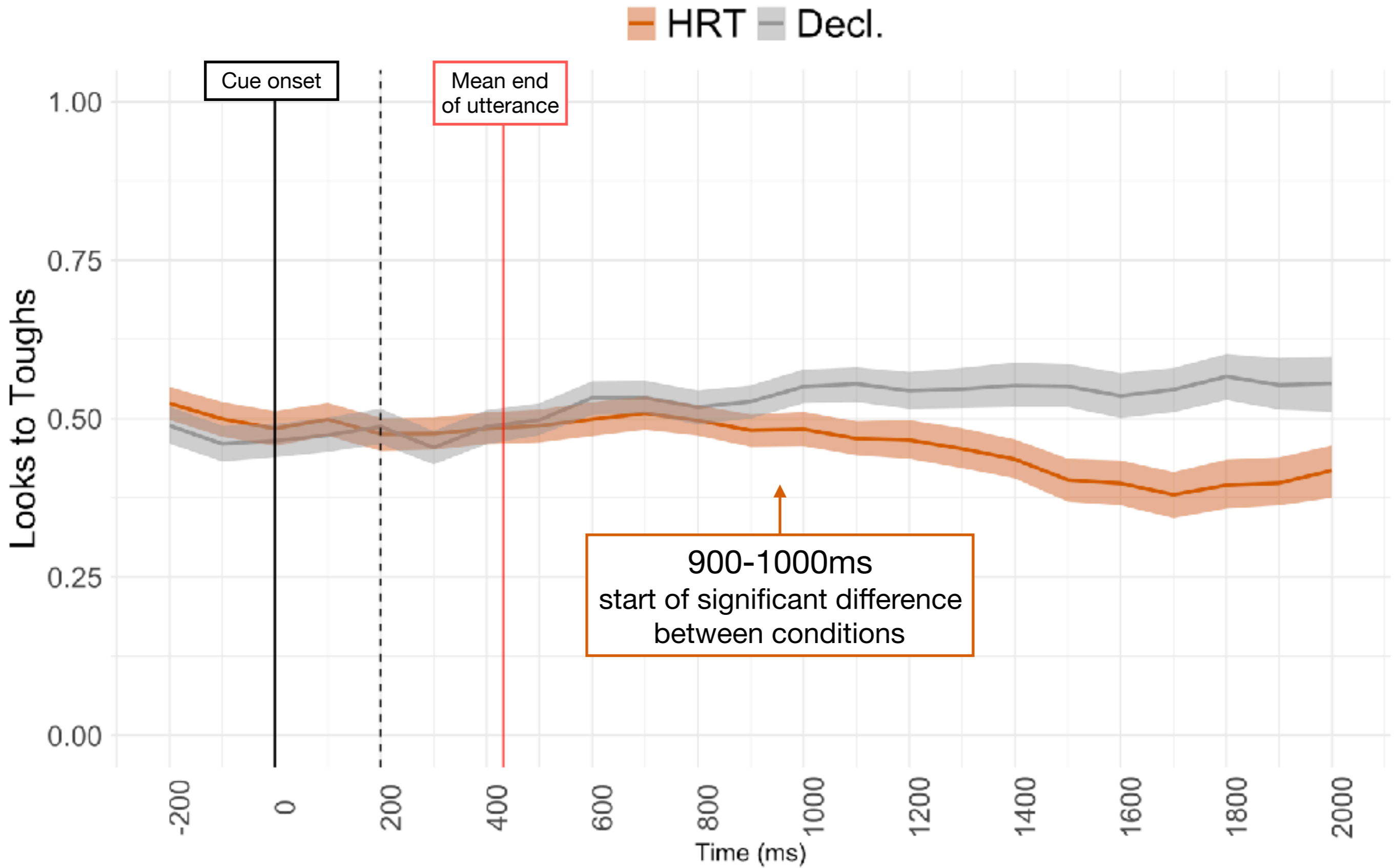
Exp. 1 (ING)

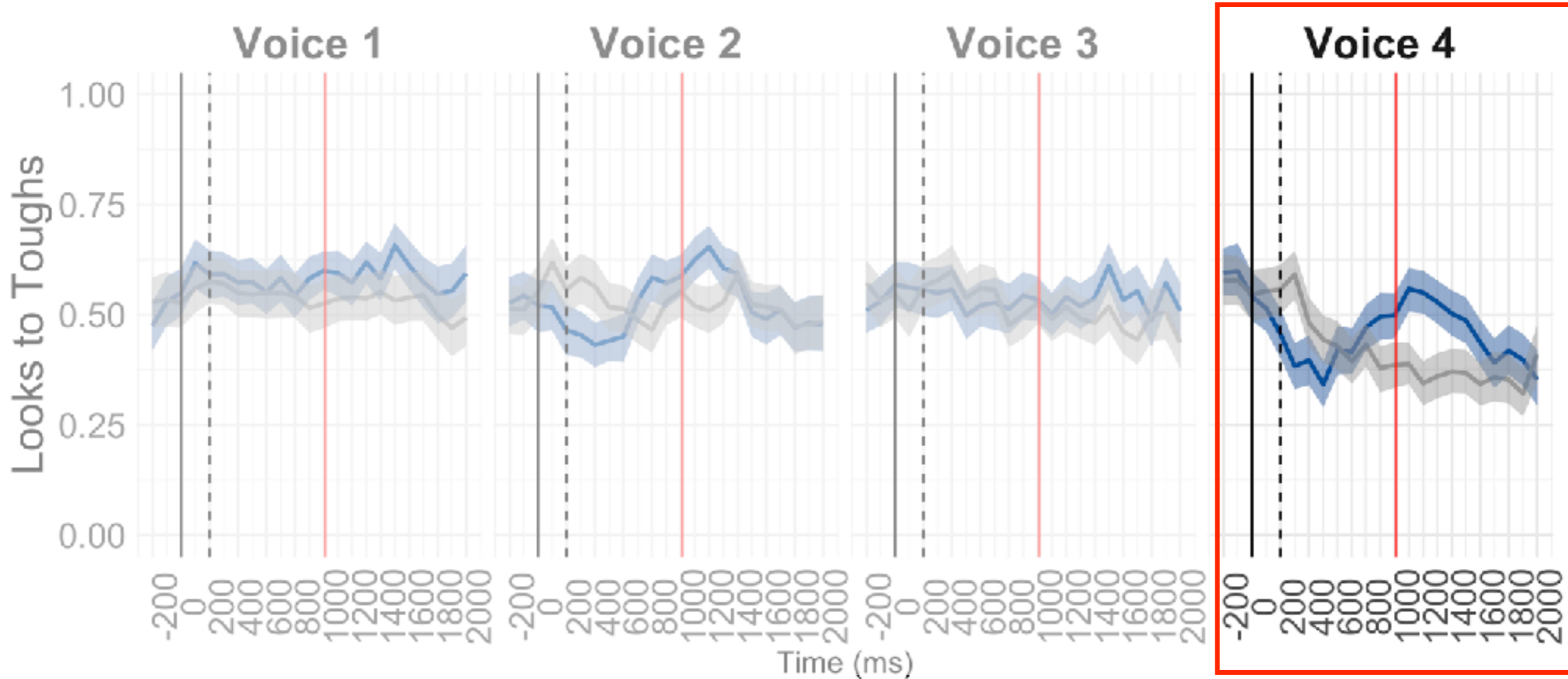
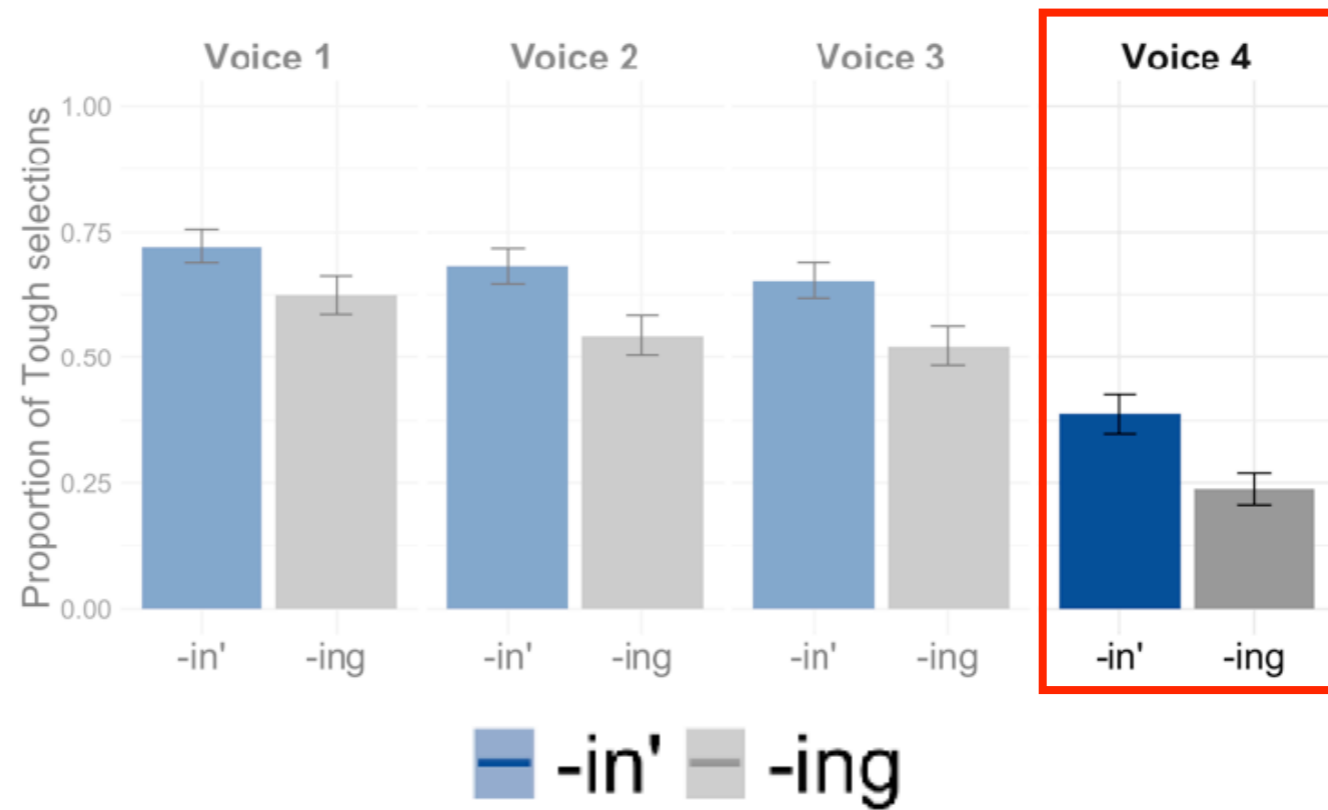
N = 322

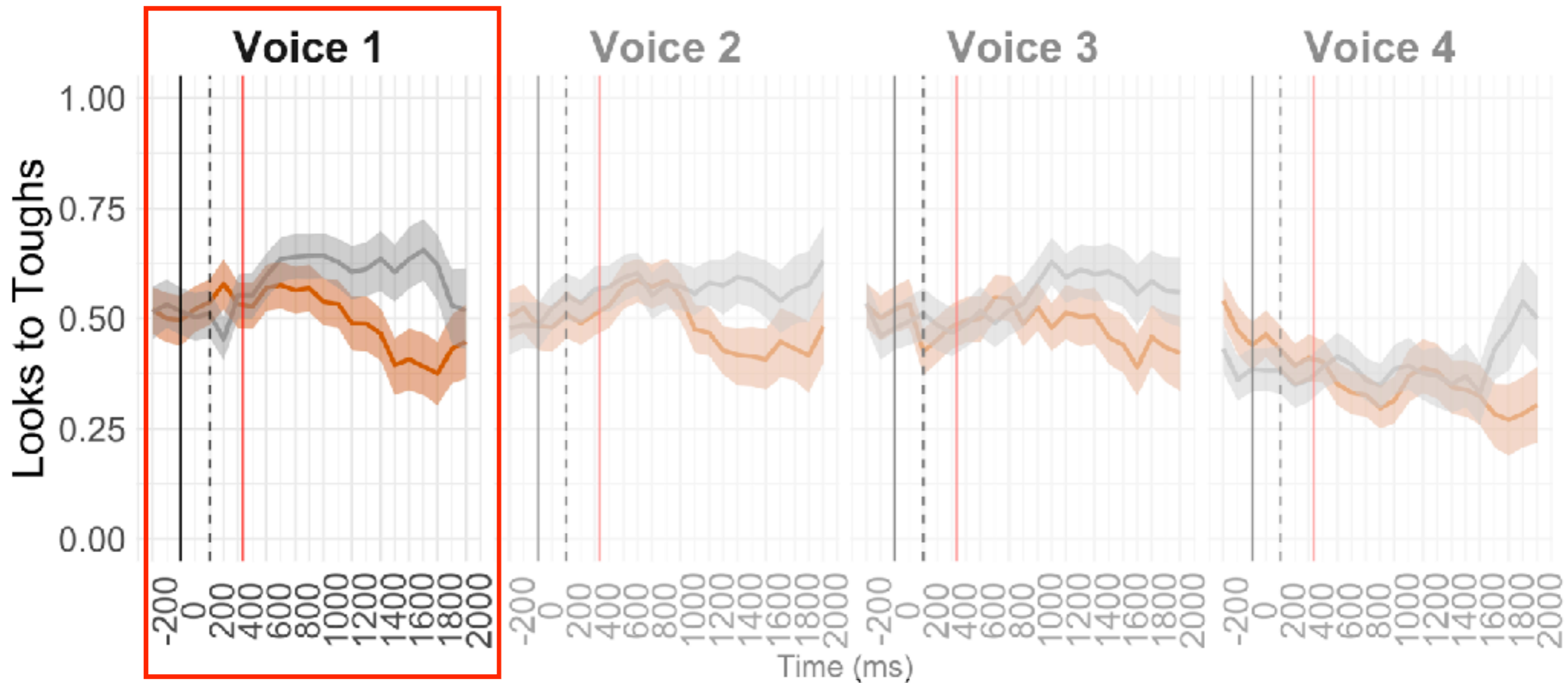


Exp. 2 (HRT)

N = 321







Results suggest that listeners processed the cues
probabilistically



...but online cue uptake was comparatively late

Social meanings of phonetic cues take longer to process than purely referential meanings

(As in Austen & Campbell-Kibler 2020)

(ING) and (HRT) cues are weak cues to social identity

Noise associated with online eye-tracking using WebGazer.js

Thanks!

ddleigh@stanford.edu



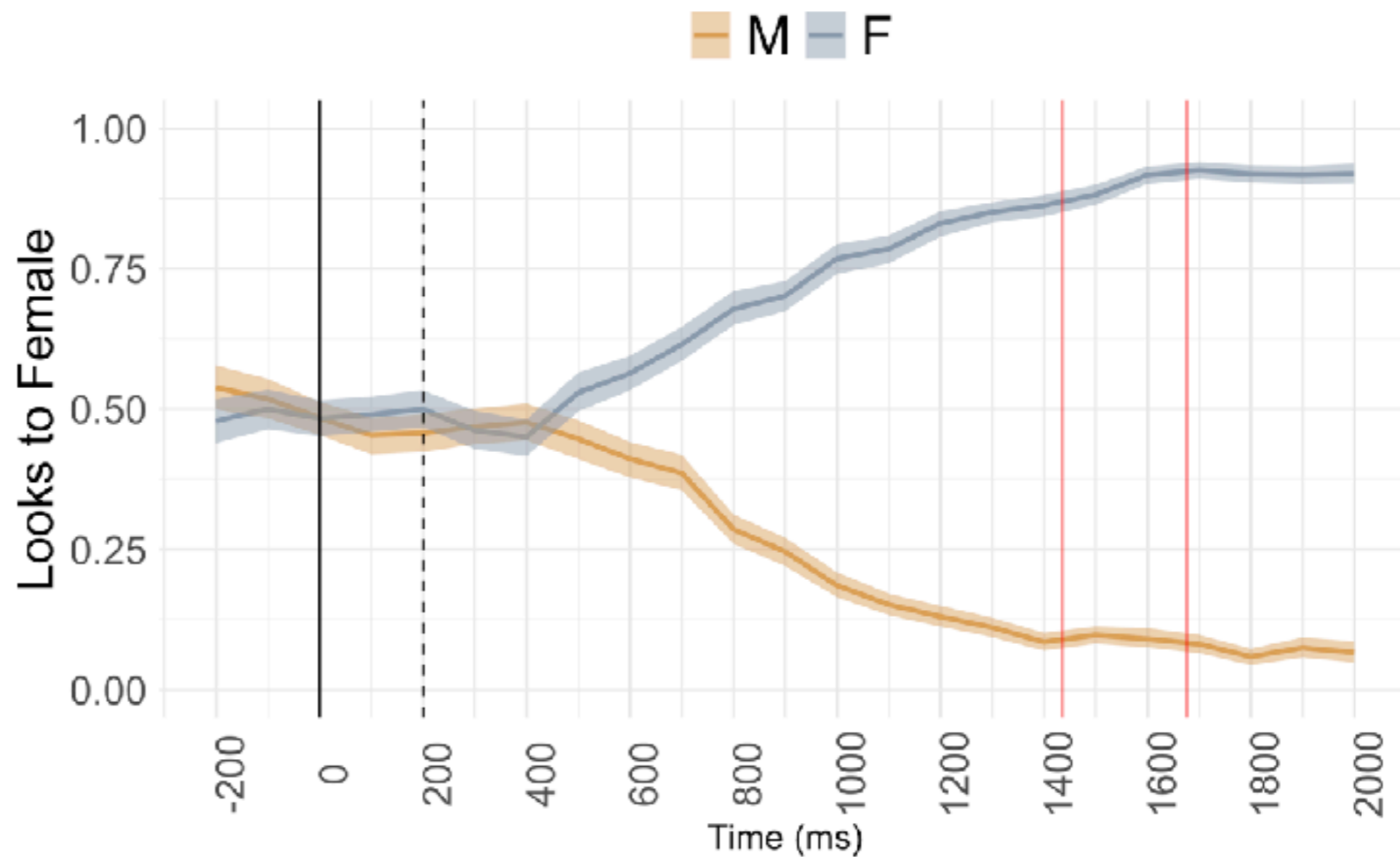
[@daisydleigh](https://twitter.com/daisydleigh)
[@ALPSLabStanford](https://twitter.com/ALPSLabStanford)

Bonus slides

Filler Trials

unambiguous

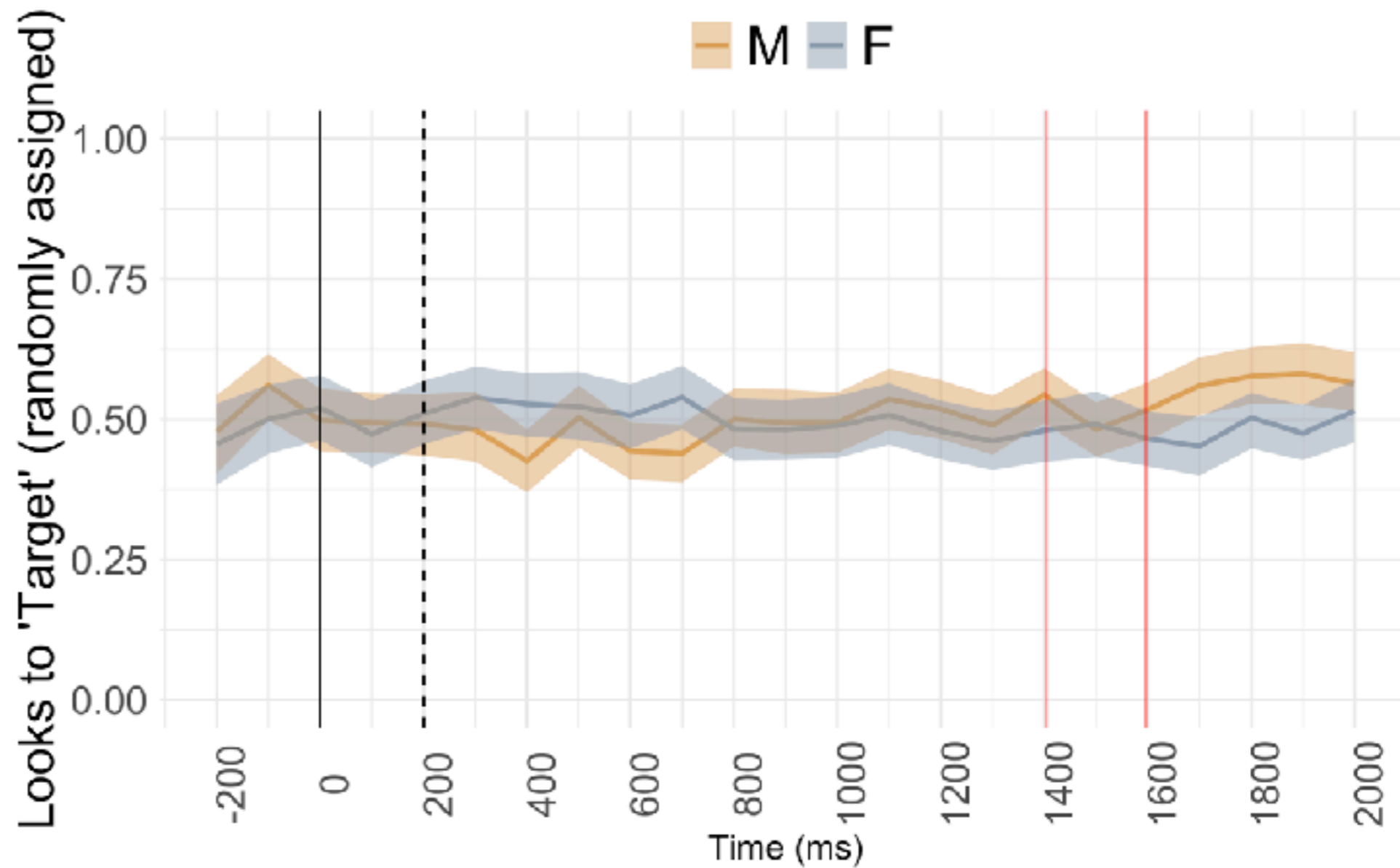
Participants heard a male or female voice, and selected between a male and female speaker



Filler Trials

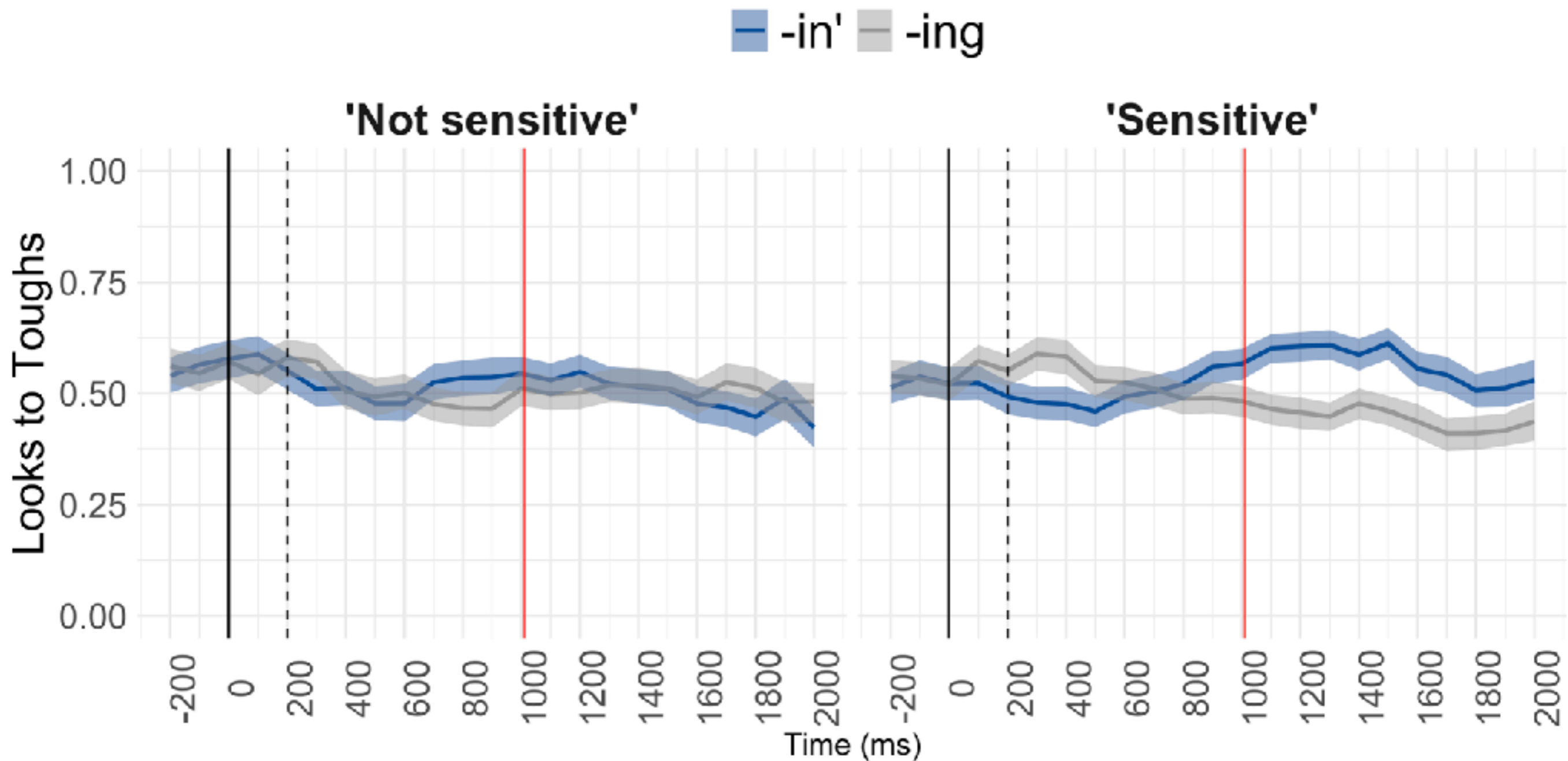
unambiguous

Participants either heard a male voice and saw two males, or a female voice and two females



'sociolinguistically-sensitive' participants

Exp.1 (ING)

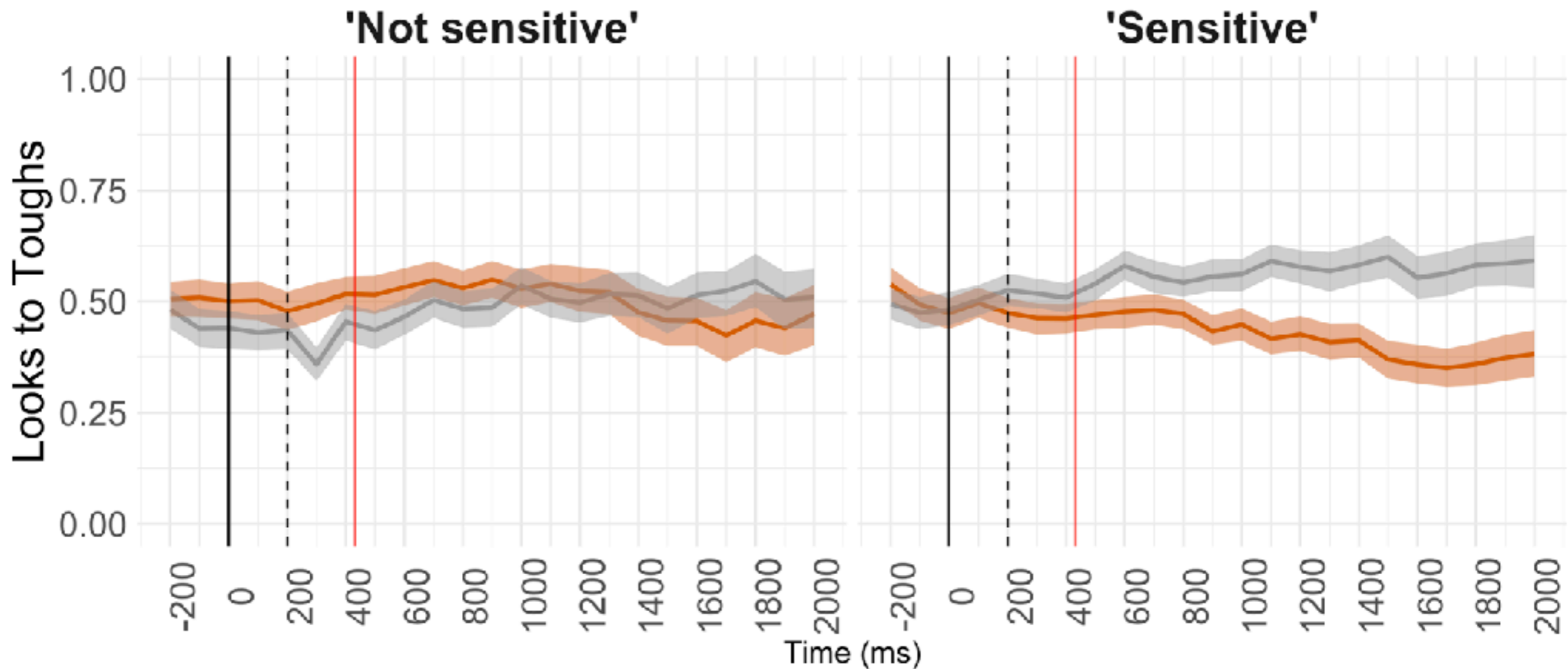


'Sensitive': more than 50% in'-Tough selections

'sociolinguistically-sensitive' participants

Exp. 2 (HRT)

— HRT — Decl.



'Sensitive': more than 50% HRT-Valley Girl selections

Experimental Design

Each participant saw...

16 critical trials			
Exp 1: 8 x -in' (2 per voice) Exp 2: 8 x HRT (2 per voice)		Exp 1: 8 x -ing (2 per voice) Exp 2: 8 x Decl. (2 per voice)	
16 filler trials			
12 unambiguous		4 ambiguous	
6 male voice	6 female voice	2 male-male	2 female-female

Statistical details

Categorical selection data

Mixed effects logistic regression models predicting log-odds of selecting the Tough speaker, given presence of **-in'** (vs. **ing**) or **HRT** (vs. **Declarative**)

Timecourse data

Mixed effects logistic regression models predicting log-odds of looking at the Tough speaker (vs. Valley Girl) in each 100ms interval after cue onset. We used 200ms either side of cue onset as a baseline to compare looks in subsequent windows.

We included Condition (**-in'** vs. **ing**, **HRT** vs. **Declarative**), Interval (Baseline vs. individual interval, and their interaction as fixed effects. We report the earliest windows at which this interaction became, and continued to be, significant.

Random effects structure

We included the maximal random effects structure justified by the data. Minimally, this included random intercepts for participant, item and speaker, and random by-speaker and by-participant slopes for condition.