

UNIVERSITY of York

# Effects of Real-World Social Group Status on Incidental Learning of Trust

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## Introduction

Gaze cues lead to automatic, reflexive reorienting of attention

Consistently invalid gaze cues leads to faces being rated as less trustworthy than other faces that consistently cue correct location [1]

No evidence of how identity may affect trust learning - perhaps pre-existing expectations change how we infer trust from gaze cues

Social group membership (e.g. race) can provide a powerful manipulation for asking this question, as race has been shown to affect face memory [2]

This study uses both in-group (White) and out-group (Asian) faces to investigate the effect of racial group membership on incidental learning of trustworthiness

## Method

### Experiment 1

N = 30 (White, 23 female,  $M_{age}$  22.23)

Gaze cueing using White and Asian faces

Stimuli: MR2 face database [3] selected according to matched trust ratings

Factors: Racial group (In-Group/Out-Group), Validity (Valid/Invalid), Time (Pre-/Post-Experiment)

### Experiment 2

As above.

N = 19 (White, all female,  $M_{age}$  20.14)

Run with electromyography (not reported)

## Data analysis

### Linear mixed models

$M_{null} \leftarrow \text{Rating} \sim (\text{Subject Error}) + (\text{Stimulus Error}) + (\text{MRE})$

$M_{time} \leftarrow \text{Rating} \sim \text{Time} + (\text{null})$

$M_{valid} \leftarrow \text{Rating} \sim \text{Validity} + (\text{null})$

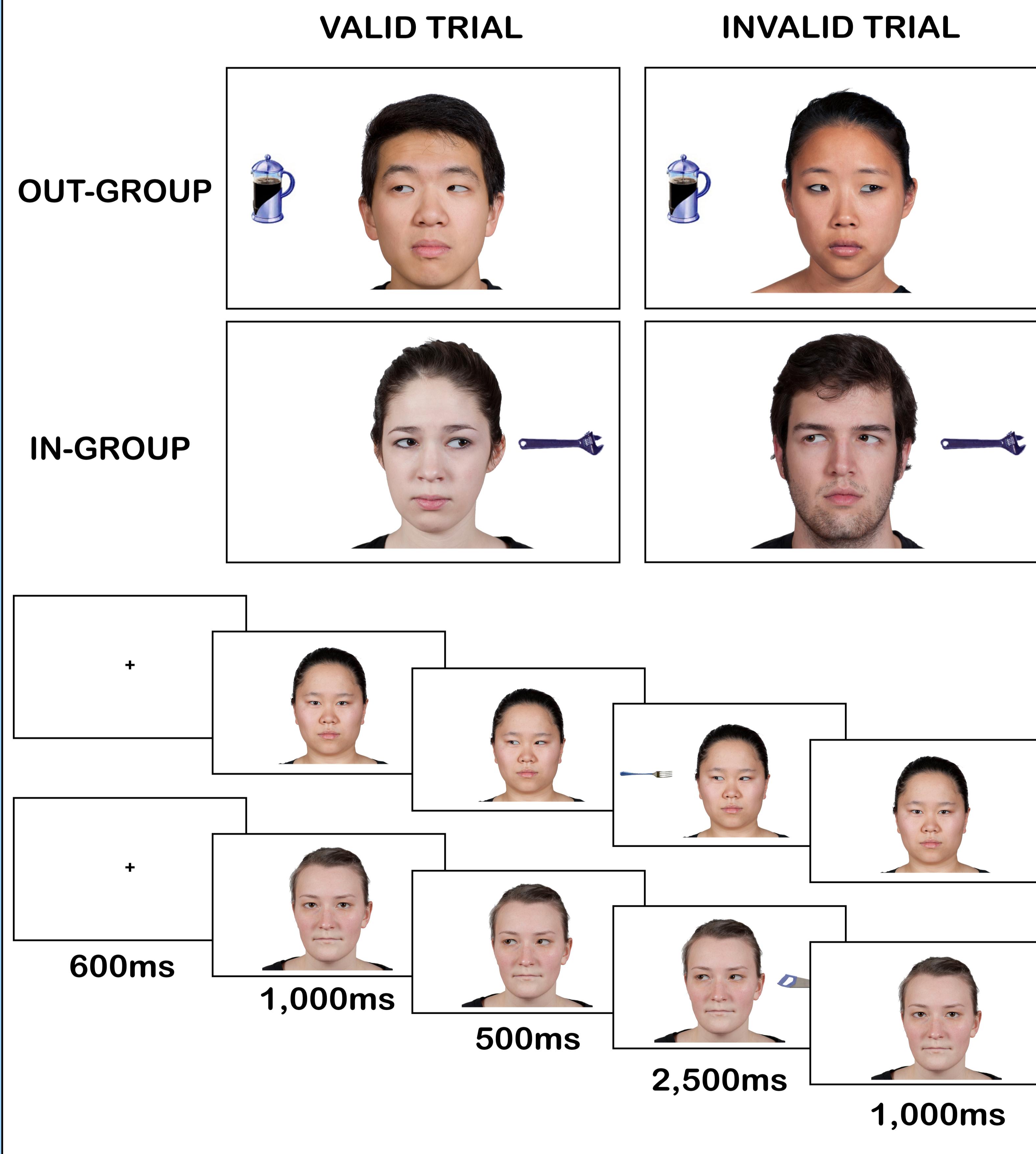
$M_{race} \leftarrow \text{Rating} \sim \text{Race} + (\text{null})$

$M_{2\text{factor}} \leftarrow \text{Rating} \sim \text{Time} + \text{Validity} + (\text{null})$

$M_{2\text{way interaction}} \leftarrow \text{Rating} \sim \text{Time} * \text{Validity} + (\text{null})$

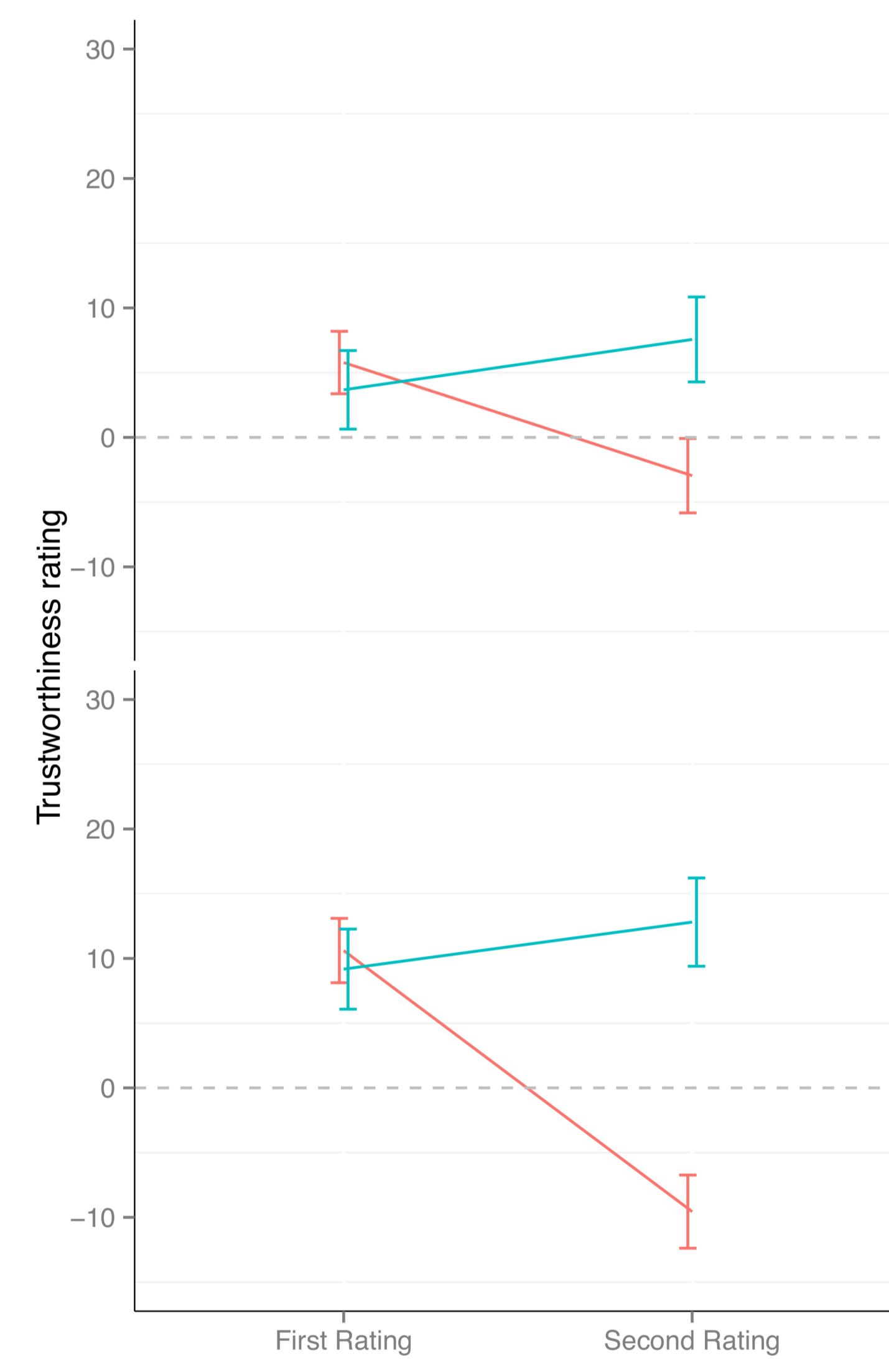
$M_{3\text{way interaction}} \leftarrow \text{Rating} \sim \text{Time} * \text{Validity} * \text{Race} + (\text{null})$

ANOVAs to compare  $M_{time}$ ,  $M_{valid}$  and  $M_{race}$  with  $M_{null}$ ,  $M_{2\text{way interaction}}$  with  $M_{2\text{factor}}$  and  $M_{3\text{way interaction}}$  with  $M_{2\text{way interaction}}$

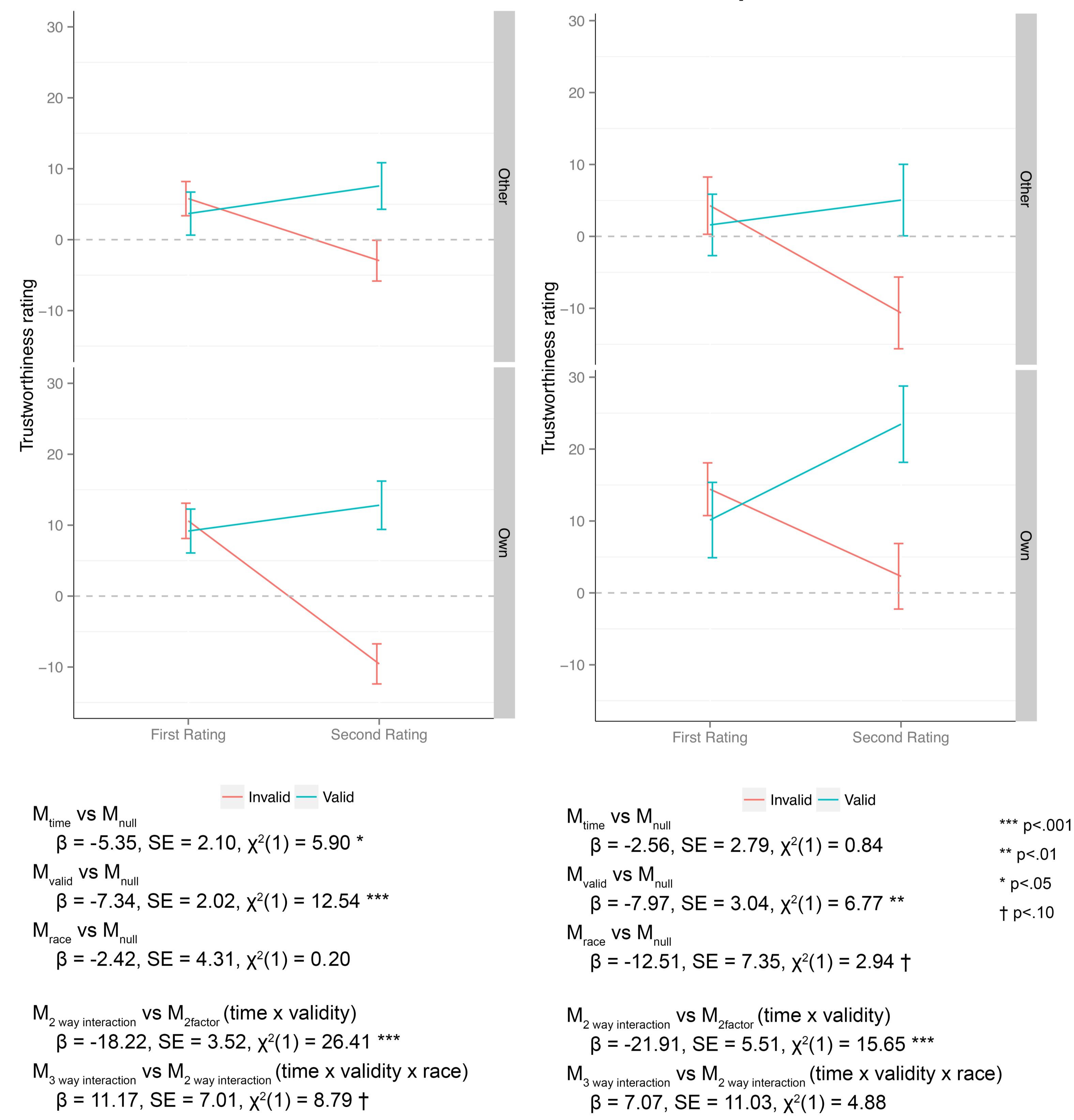


## Results

### Experiment 1



### Experiment 2



## Conclusions

Incidental learning of trust from gaze cues does not appear to differentiate between racial groups

No evidence of own-race bias in trust learning, which is interesting in light of literature on out-group homogeneity and expectations of in-group members

Fits with some previous data indicating initial trustworthiness does not affect incidental learning from gaze cues [4] - possible implications for how incidental trust learning may be insensitive to pre-existing expectations of co-operation