

### Background

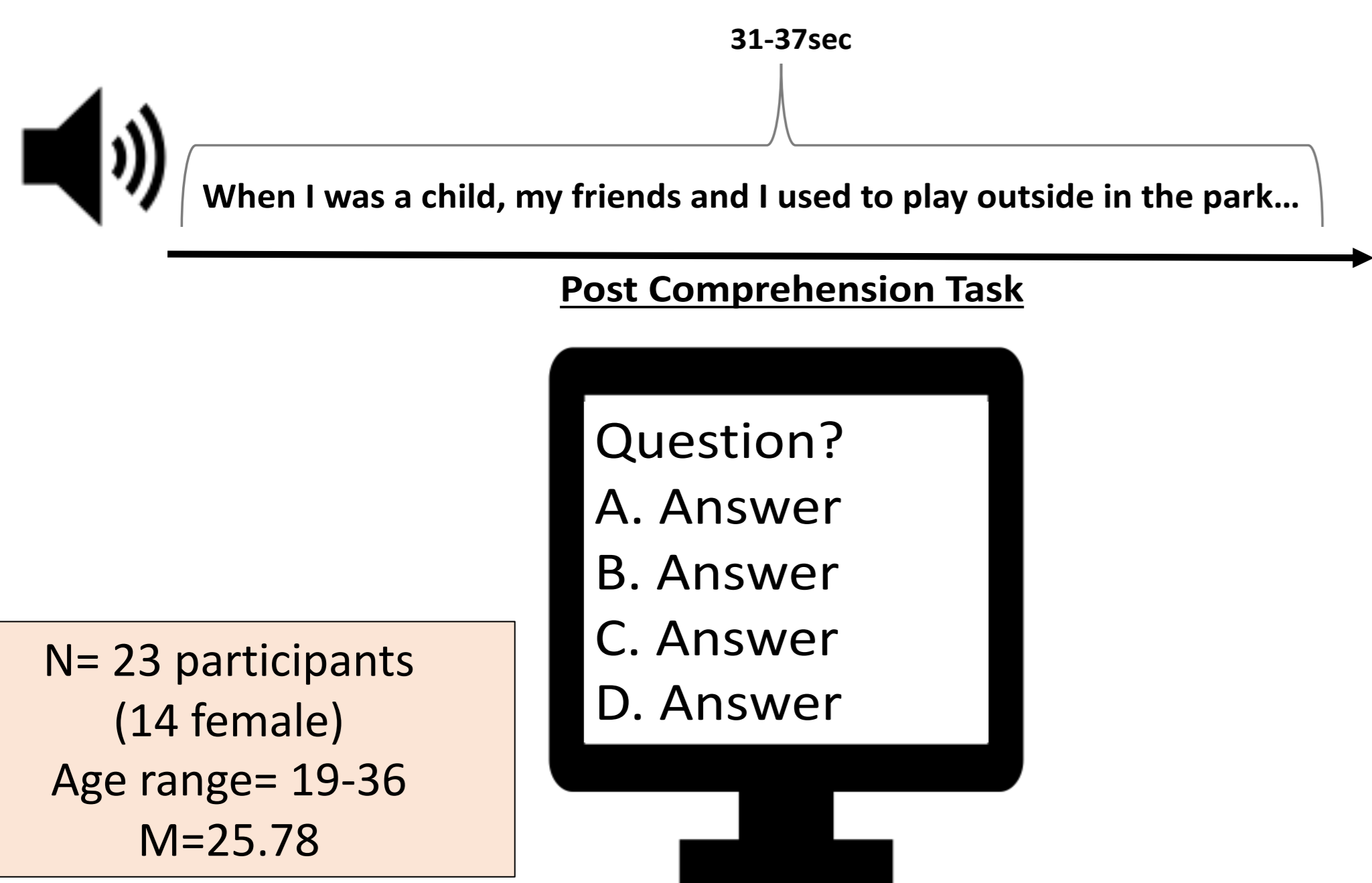
### Research Questions

- Only ~33% of participants in previous studies have reported noticing their name in otherwise unattended speech.
- These mostly use selective attention tasks where detection of unattended words is assessed indirectly.
- Studies attribute the success of noticing individual words in a secondary stimuli to momentary glimpses from one stimuli to the other

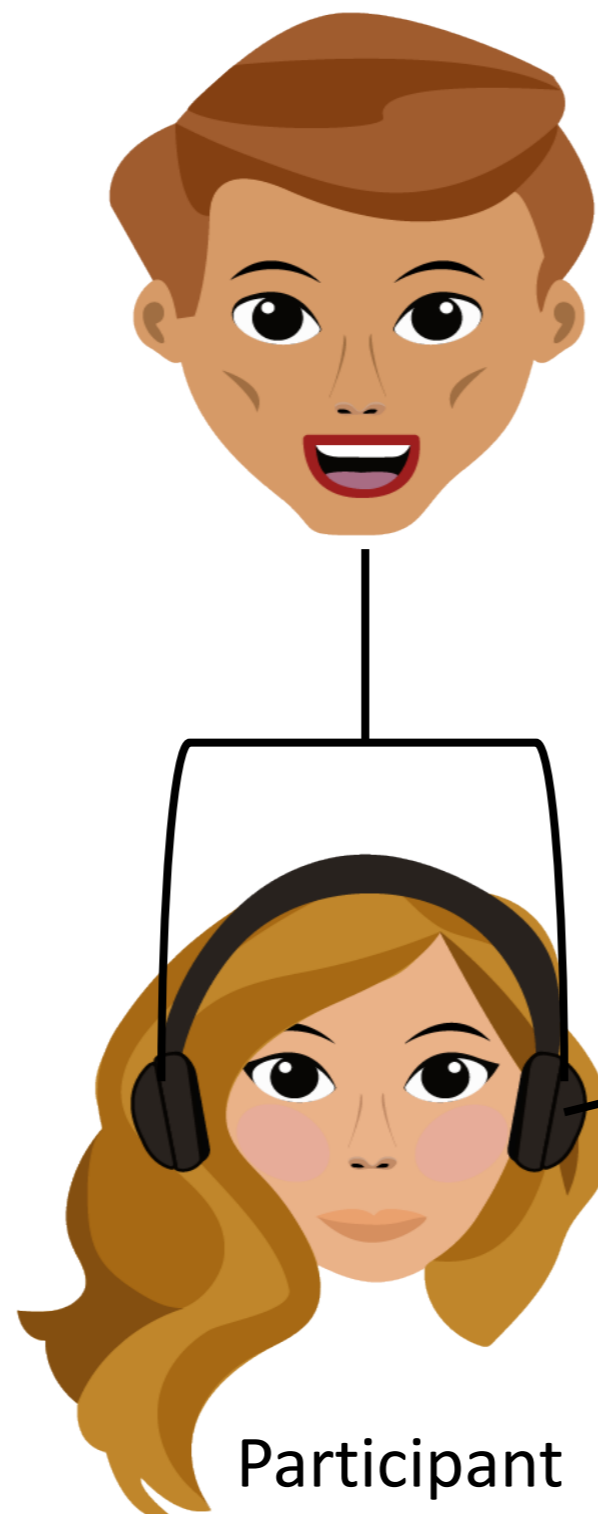
- What is the upper-limit for noticing individual words, and one's name in particular, among competing speech?
- Can the "glimpsing" hypothesis explain the differences between success
- What role does working memory play on success in each of the individual tasks?

### Methods

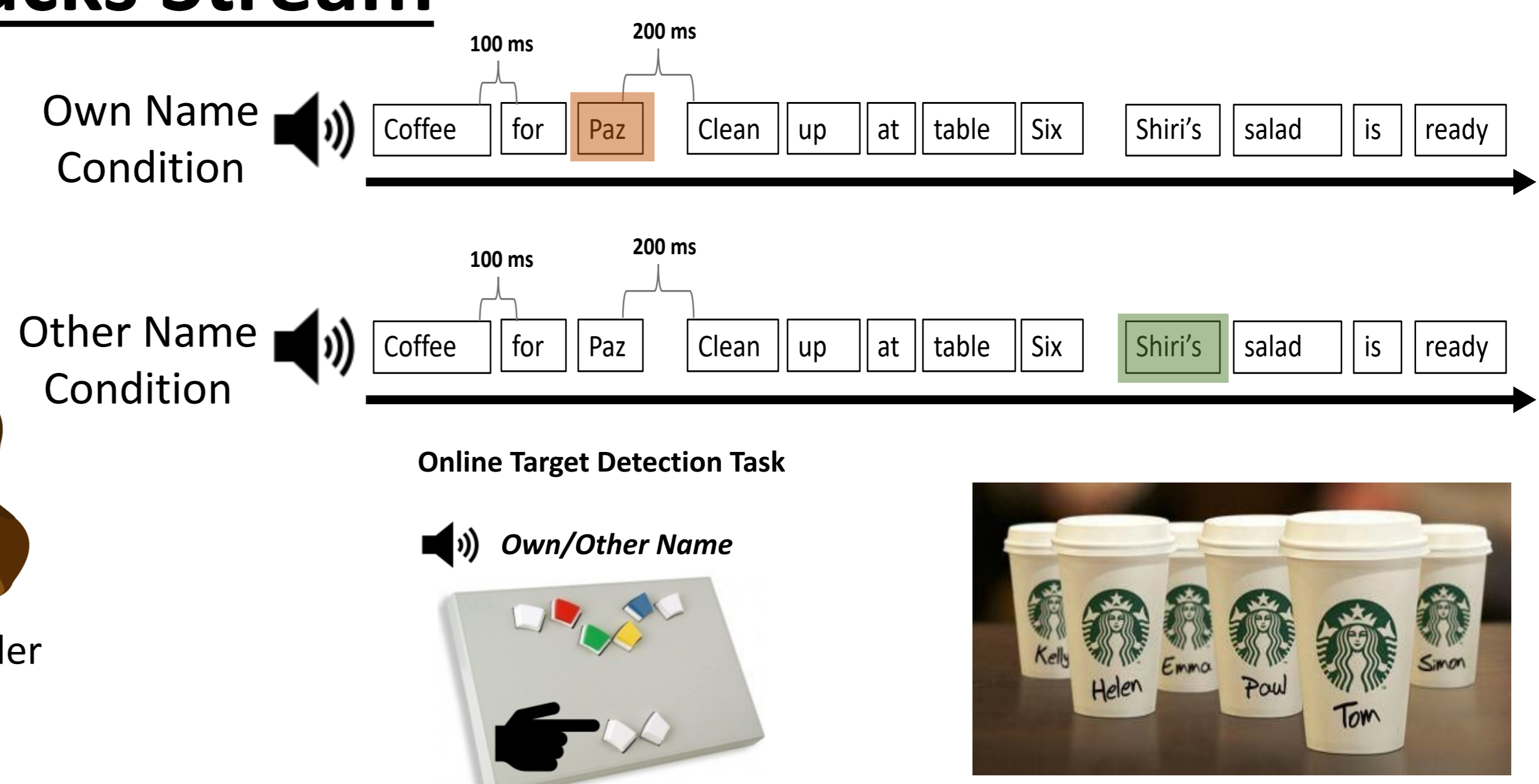
#### Narrative Stream



Narrative Voice



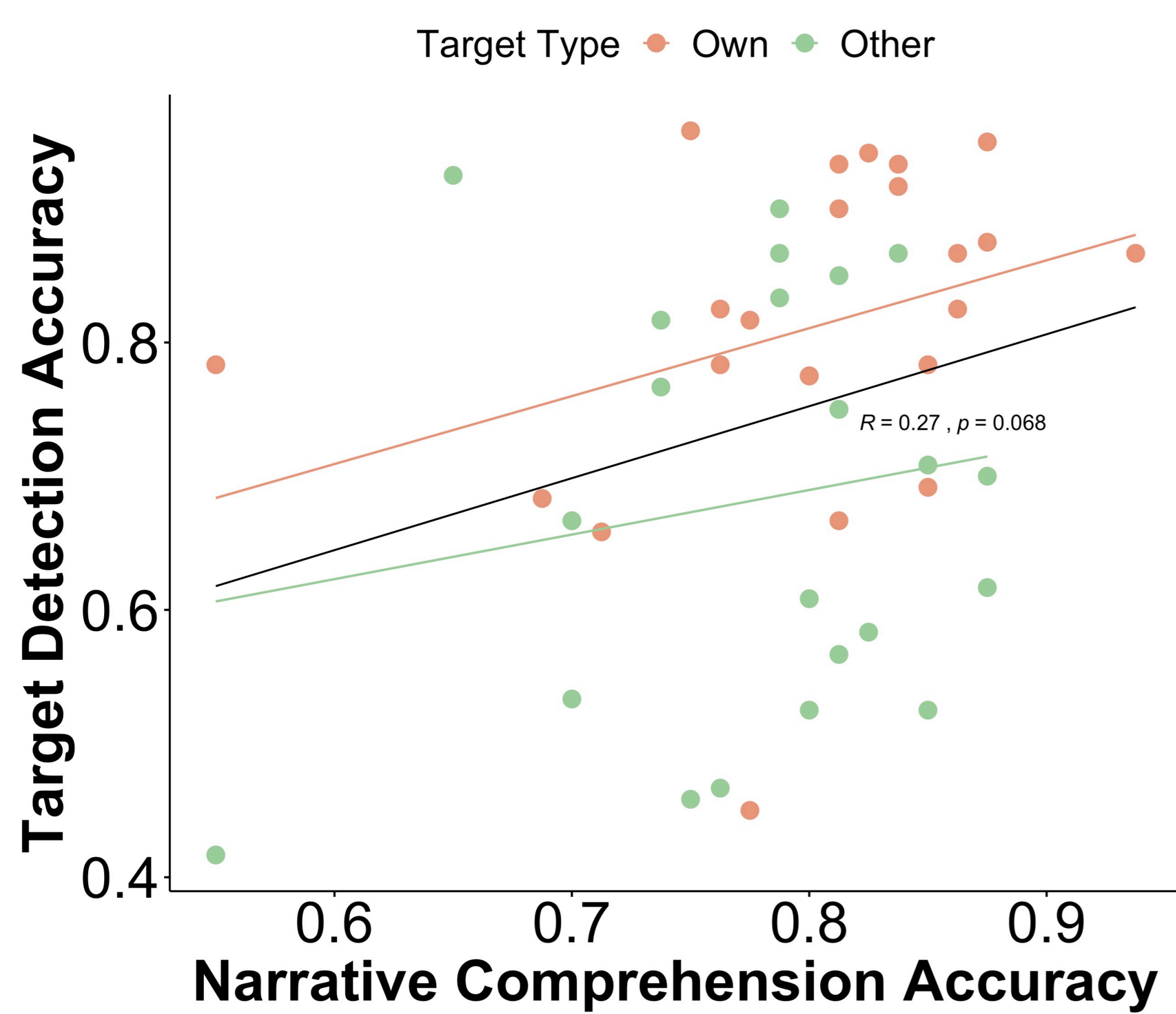
#### Starbucks Stream



### Main Results

### Testing the 'glimpsing' hypothesis

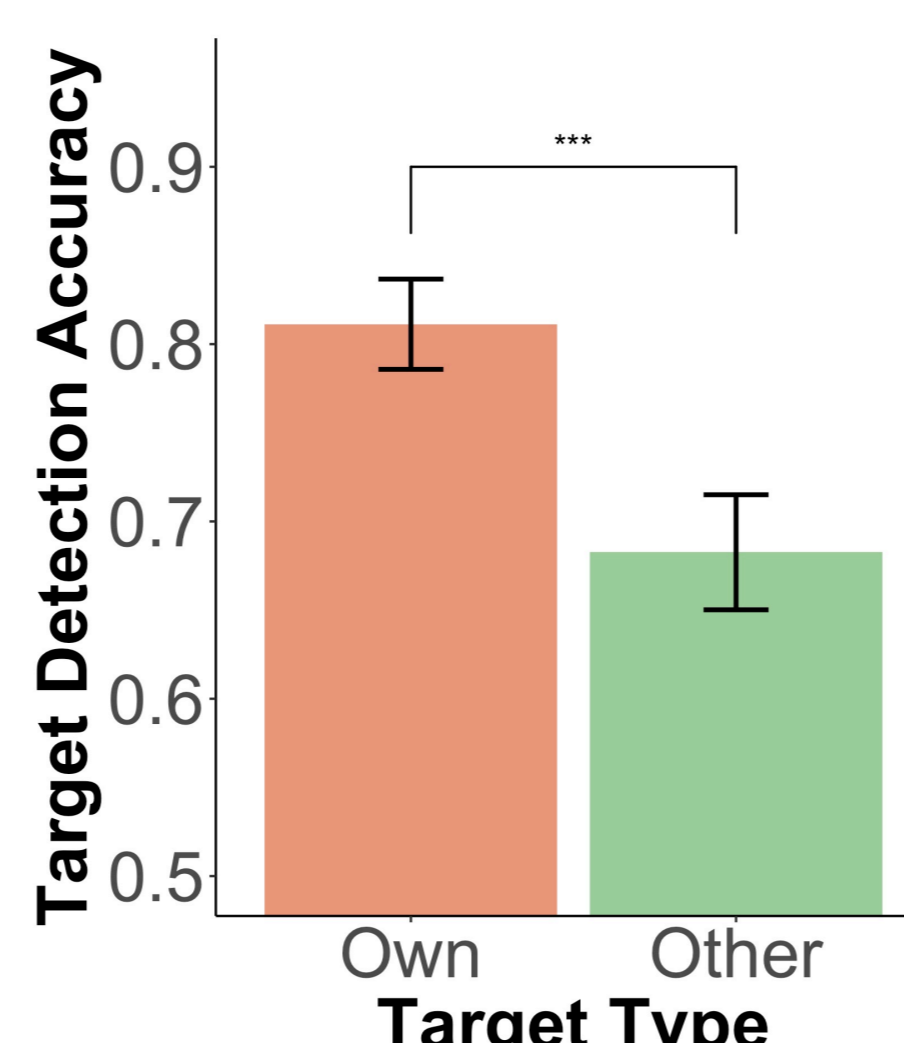
#### Dual task performance



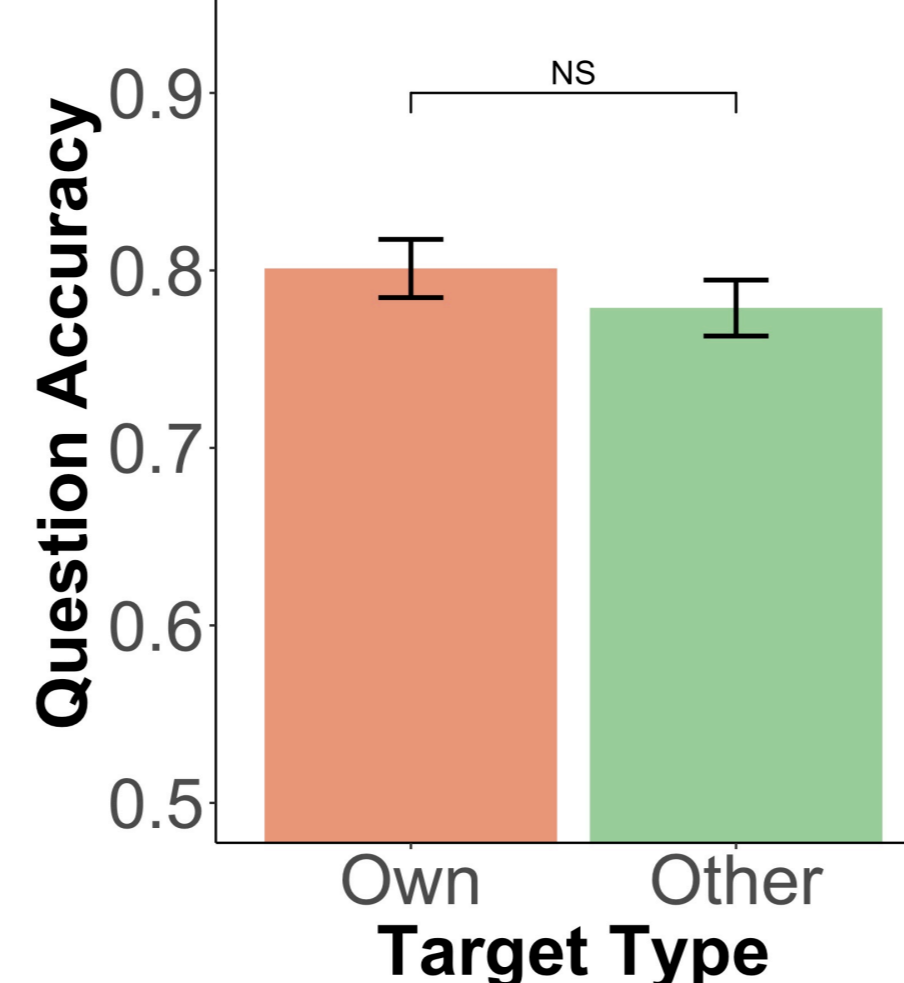
- Relatively good performance on both tasks
- Dual-task provides indication for the "upper-bound" for processing concurrent speech
- No behavioral trade-offs between tasks

#### Is there an own-name advantage?

##### Target Detection Task

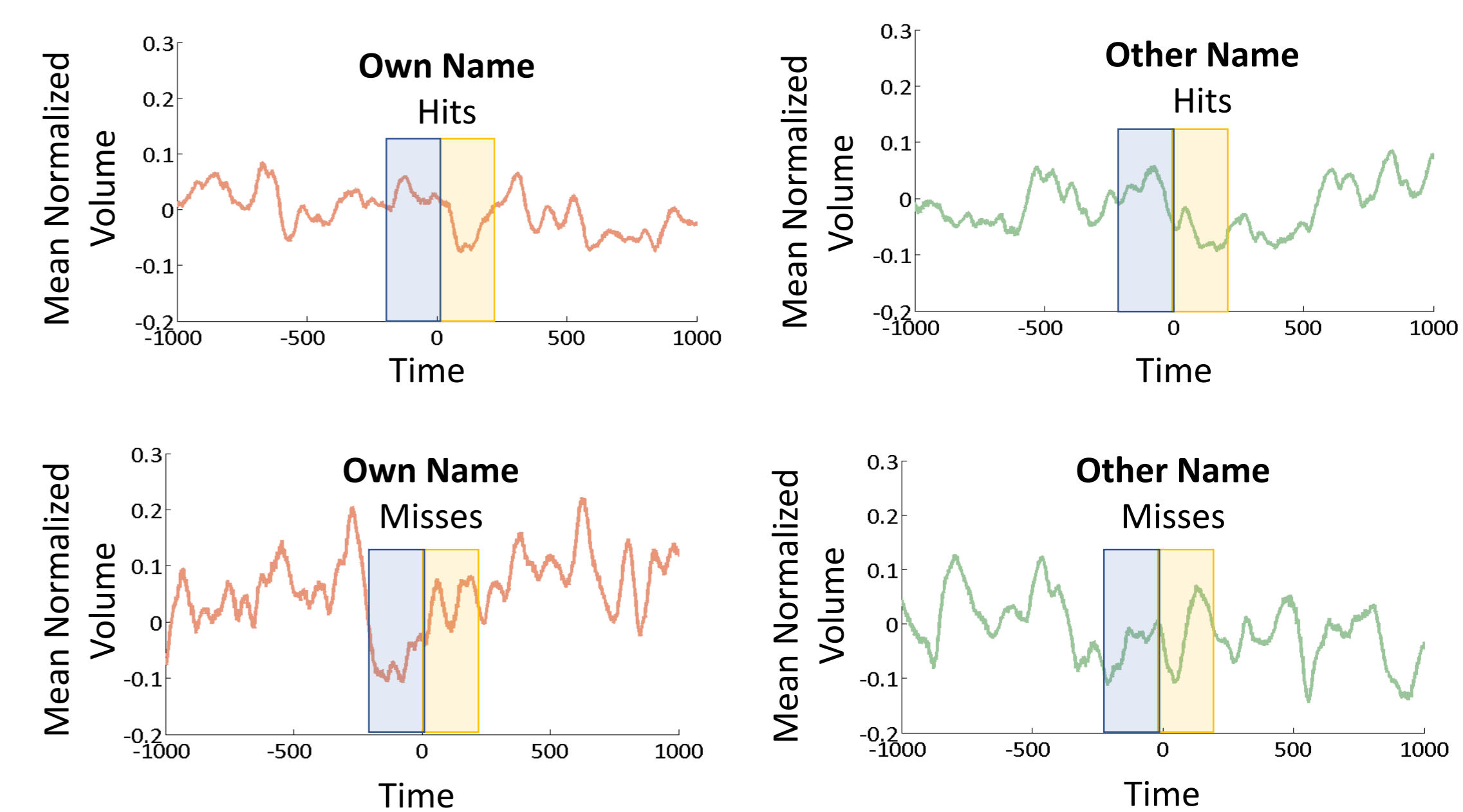


##### Comprehension Task



#### Are "hits" more likely during quiet?

Mean speech-envelope, locked to detected ("Hits") and undetected ("Missed") targets



t=0 Target Onset

##### After Target

Comparison	Statistic
Other Hits vs. Other Miss	t(964) = -1.00, p=0.32
Own Hits vs. Own Miss	t(987) = -1.15, p=0.25
Other Hits vs. Own Hits	t(1400) = -0.83, p=0.41
Other Miss vs. Own Miss	t(551) = -0.70, p=0.48

##### Before Target

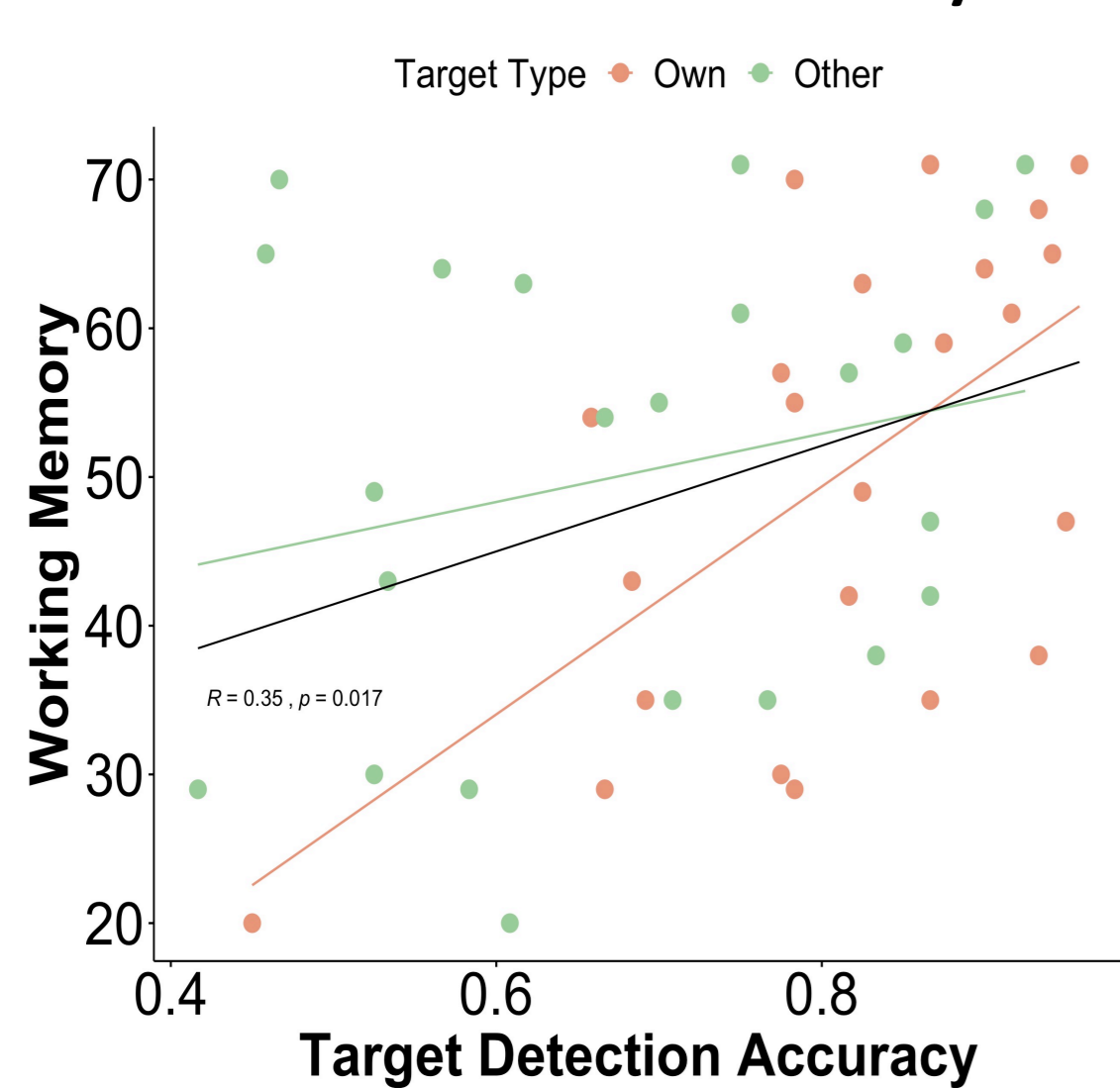
Comparison	Statistic
Other Hits vs. Other Miss	t(964) = 0.98, p=0.32
Own Hits vs. Own Miss	t(987) = 1.71, p=0.09
Other Hits vs. Own Hits	t(1400) = -0.18, p=0.86
Other Miss vs. Own Miss	t(551) = 0.63, p=0.53

No indication of 'glimpsing'

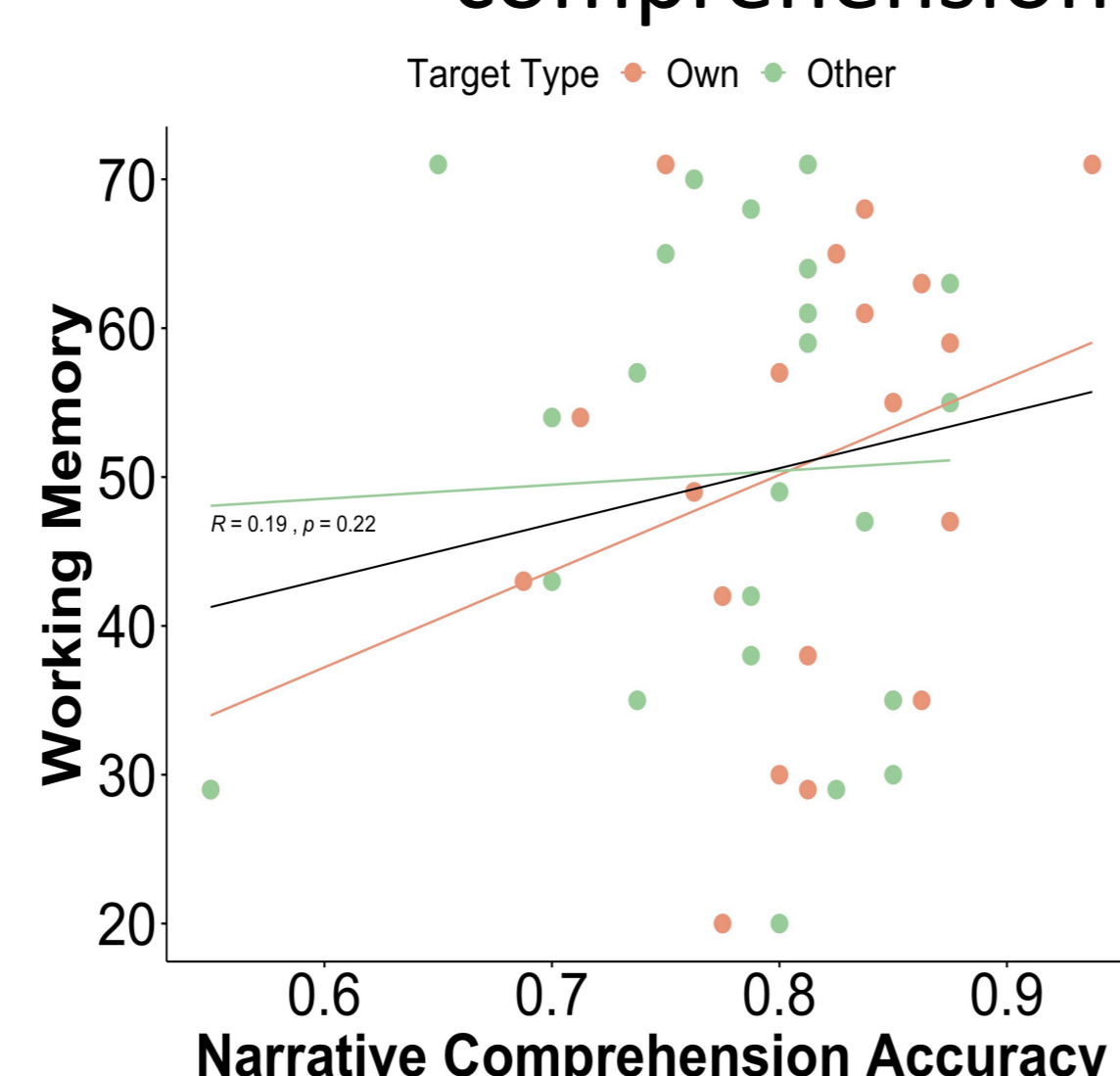
### Role of Working Memory

### Conclusions

WMC Improves ability to monitor a secondary stream



No effect on narrative comprehension



- High accuracy in both tasks conveys a strong ability to divide attention and process between concurring auditory stimuli
- Familiarity of the Own name seems to play a role in the ability to detect it in the presence of additional auditory stimuli
- Volume changes in the narrative do not seem to play a role in the ability to perform the detection task