

Speaking and Listening with our Eyes

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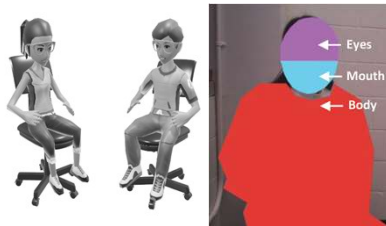
Introduction

- People display unidirectional and bidirectional nonverbal gaze behaviours during social interactions such as:
 - a. Mutual engagement
 - b. Social referencing
 - c. Participation
- Speech has an effect on the location and duration of fixations
- Looking while listening vs. looking while speaking alters gaze behavior

Research Questions:

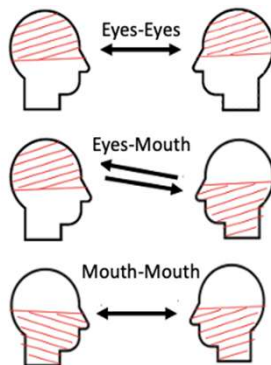
1. Does speech affect gaze behaviours such as mutual engagement, participation and social referencing?
2. Does speech affect the perception of the partner in the dyad?

Methods

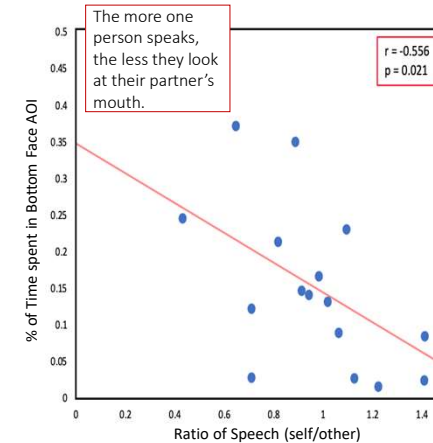
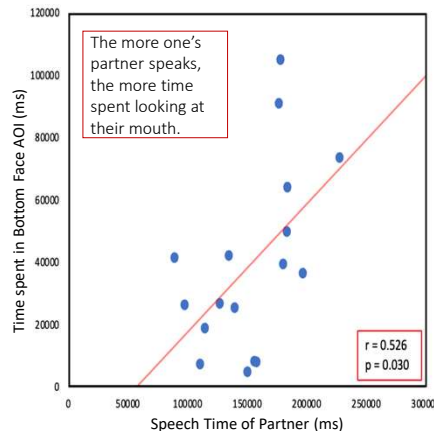
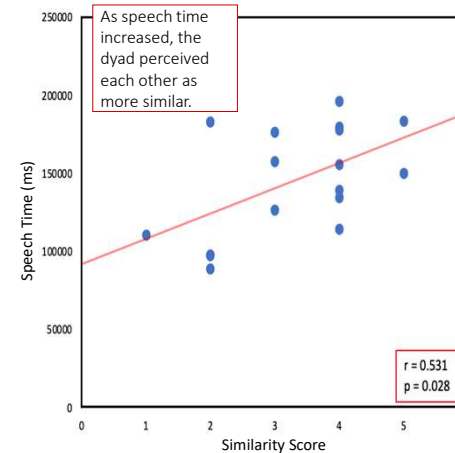
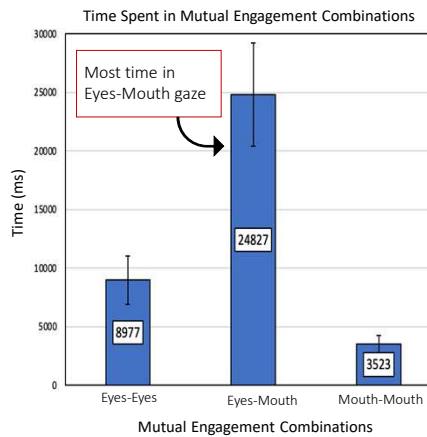


- 9 dyads (N = 18)
- 20-minute interactions
- Eye Movement recorded using Tobii Pro Lab
- Speech analyzed using BORIS

Mutual Engagement AOI Combinations



Results



Discussion

- During an interaction, there is significantly more time spent in top-bottom/bottom-top mutual engagement.
- When one is speaking, there is more fixation to the bottom of their face.
- Therefore, the more one talks over their partner, the less likely they are to look at their partner's bottom face.
- Verbal communication is crucial in one's perception of their partner in a dyad. Nonverbal communication is not sufficient.

References

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- Buchan, J. N., Paré, M., & Munhall, K. G. (2008). The effect of varying talker identity and listening conditions on gaze behavior during audiovisual speech perception. *Brain research*, 1242, 162–171. <https://doi.org/10.1016/j.brainres.2008.06.083>

Acknowledgements

I would like to thank the Arts Internship Office, the donor, and Dr. Jelena Ristic for making this all possible.