INTRODUCTION

- Infants show a preference from an early age to listening to their native language [2].
- Infants can also discriminate their native language from a rhythmically different one using auditory cues [3].
  - Ex: Spanish, French are syllable-timed languages and therefore discriminable from English, which is stress-timed [6].
- However, speech is multimodal
- What is the role of the visual cues in language acquisition?

VISUAL INFORMATION IN ACQUISITION

- Infants are sensitive to visual information
  - 4-mo-olds can match audio and visual information [1, 4].
  - 6-mo-olds can use visual information to help learn phonetic categories [8].
  - 8-mo-olds can match cues from the speakers voice to their visual characteristics [5].
- Infants can discriminate languages using just visual cues [9].
  - 4- and 6-month-old infants were able to discriminate English and French, but not 8-month-old infants.
  - 6- and 8-month-old bilingual infants also discriminated English/French.
- Are the infants simply able to distinguish languages visually or are they able to determine which language is their own?

RESEARCH QUESTION

Do infants show a preference for looking at their native language when presented with just visual speech?

SUBJECTS/STIMULI

Subjects:
- 16 4-month-old infants; 11 8-month-old infants
- Monolingual English-learning

Stimuli:
- Sentences taken from Nazzi et al. 2000, previously used to show audio discrimination of English/Spanish.
- Adult directed speech, controlling for rate.
- Produced by adult female English/Spanish bilingual.
- Accents verified by native speaker judgments.
  - Spanish chosen because it is of a different rhythm class.
- Stimuli recorded audiovisually, audio stripped in iMovie.

PROCEDURE

- Simultaneous visual preference tested using Habit X.
- Two dependent variables coded online by the experimenter, who was blind to the trial presented
  - Total looking time
  - Number of looks
- Side of presentation for English & Spanish and order of presentation were counterbalanced.

RESULTS

- Both 4- and 8-month-old infants showed a preference to look towards English.

CONCLUSION & FUTURE DIRECTIONS

Both 4- and 8-month-old infants show a preference for looking at their native language when presented with visual cues alone.

Follow-up (ongoing): We are testing the same subject groups on whether they have a preference for listening to English or Spanish when they just have exposure to the auditory cues from the same stimuli.

Is this a preference for native language or native language’s rhythm class?

Follow-up: We plan to test discrimination of English/Dutch to determine whether this is an effect of rhythm class.

What about bilingual infants?

Follow-up (ongoing): We predict bilingual infants will show no preference.

REFERENCES


ACKNOWLEDGEMENTS

Thanks to Kristi Hendrickson and the RAs at the UCLA language lab for assistance with testing subjects.

Funded by UCLA Summer Research Mentorship award and Graduate Research Mentorship award to N.W., and NSF BCS-0951639 to M.S.