Visual Attention to Faces of Unfamiliar vs. Familiar Language Speakers Varies by Infant's Language Background

Natsuki Atagi¹, Tawny Tsang², & Scott P. Johnson³
¹UC Riverisde, ²Yale University, ³UCLA

INTRODUCTION

Language experience modulates gaze behaviors

- Monolingual & bilingual infants attend differently to faces of familiar vs. unfamiliar language speakers^{1, cf. 2}
- Monolingual infants prefer to look at native language speakers than nonnative language speakers³

Language experience affects communicative development

 Compared to monolingual children, bilinguals show enhanced socialcommunicative skills⁴

RESEARCH QUESTIONS

- 1. How do infants' early language experiences affect patterns of visual social attention?
- 2. How do linguistic & social cues drive infants' attention?

METHOD

Participants: 15- to 24-month-olds*

	Monolingual	Bilingual
	(n=47, 20 F)	(n=42, 15 F)
Age (mos)	19.07 ± 2.84	18.53 ± 3.08
English	92.60% ± 18.17%	56% ± 19.53%
exposure	range: 85-100%**	range: 20-80%

^{*} No infants were exposed to Armenian

Task: Free viewing task of bilingual speakers talking

- 6 randomly ordered 20-24 sec videos
 - 3 in English (familiar lang)
 - 3 in Armenian (unfamiliar lang)



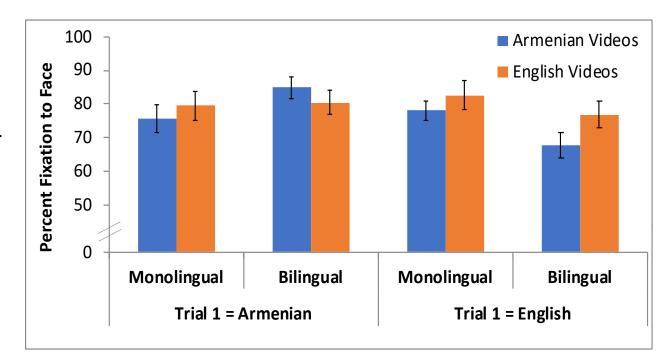
RESULTS

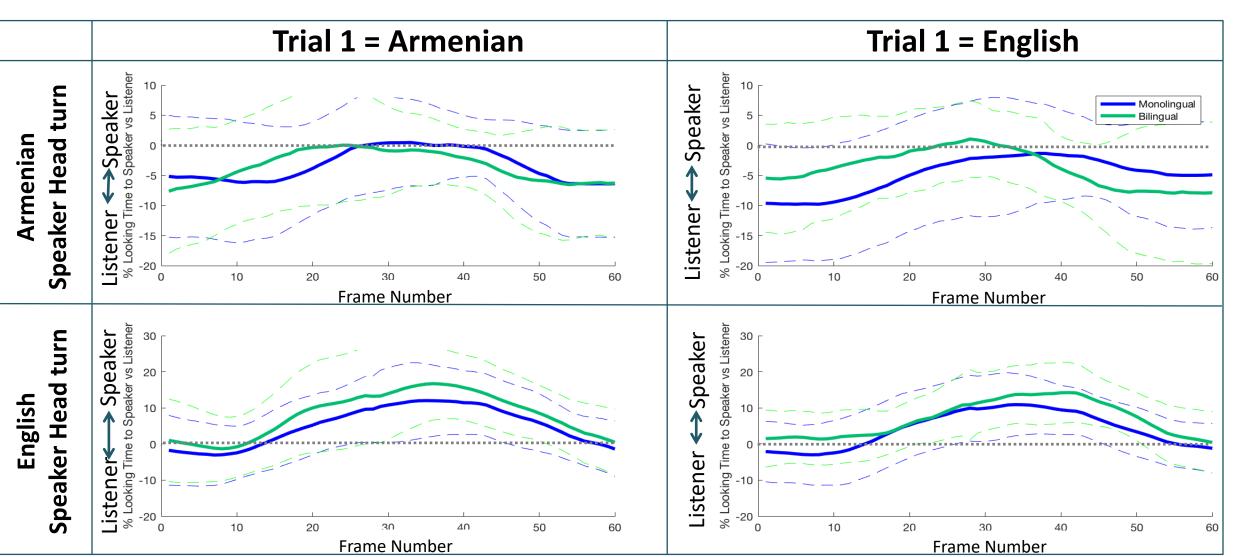
Infants' pattern of looking to bilingual speakers varies by what language was spoken in Trial 1

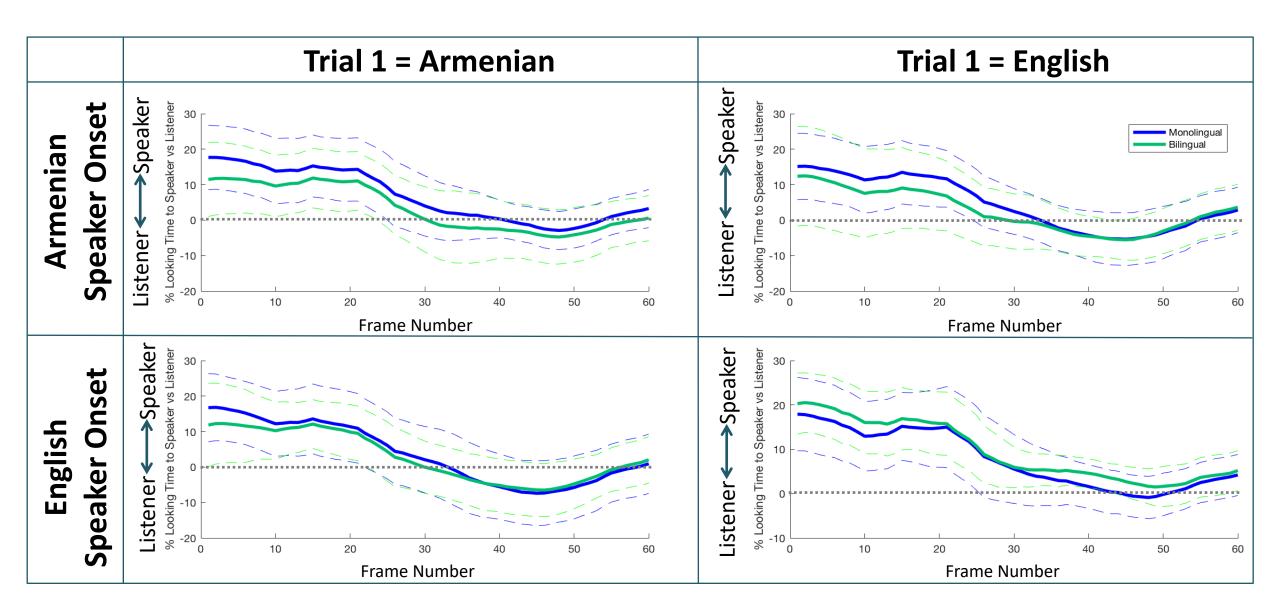
• Infants looked less to faces in Armenian videos when Trial 1 was in English, F(1,61)=4.321, p=.04

Infants' pattern of looking may be driven more by head turns than speech onset

 Infants equally likely to orient to the speaker vs.
 listener during Armenian videos, but oriented more to the speaker during English videos







DISCUSSION

First encounter with a bilingual speaker affects bilingual infants' visual social attention

- Trial 1 language affected attention to faces in subsequent videos
- More looking to faces in Armenian videos when Trial 1 was in Armenian, but less looking to Armenian videos when Trial 1 was in English

Infants' familiarity with a sociallinguistic context affects visual social attention

- Infants' familiarity with a language may influence the way they attend to speakers more so than the infants' language background (e.g., monolingual vs. bilingual)
- In line with research showing monolingual infants' & children's preference for native over nonnative language speakers²

NEXT STEPS

 Examine how visual social attention may be modulated by individual differences in early language experiences and language, communication, & socialization skills

ACKNOWLEDGEMENTS

Thank you to all the families who participated in this study. This research is supported by the NSF DGE-0707424 & SBE-1714925 to NA; F31-HD090937 to TT; and NIH R01-HD82844 to SPJ.

REFERENCES

1)Pons et al. (2015). *Psych Sci*, 1-9. 2)Tsang et al. (2018). *JECP*, 169, 93-109. 3)Kinzler et al. (2007). *PNAS*, 104(30), 12577-12580.

4)Fan et al. (2015). *Psych Sci*, 26(7), 1090-1097.

^{** 2} infants had 10% English exposure