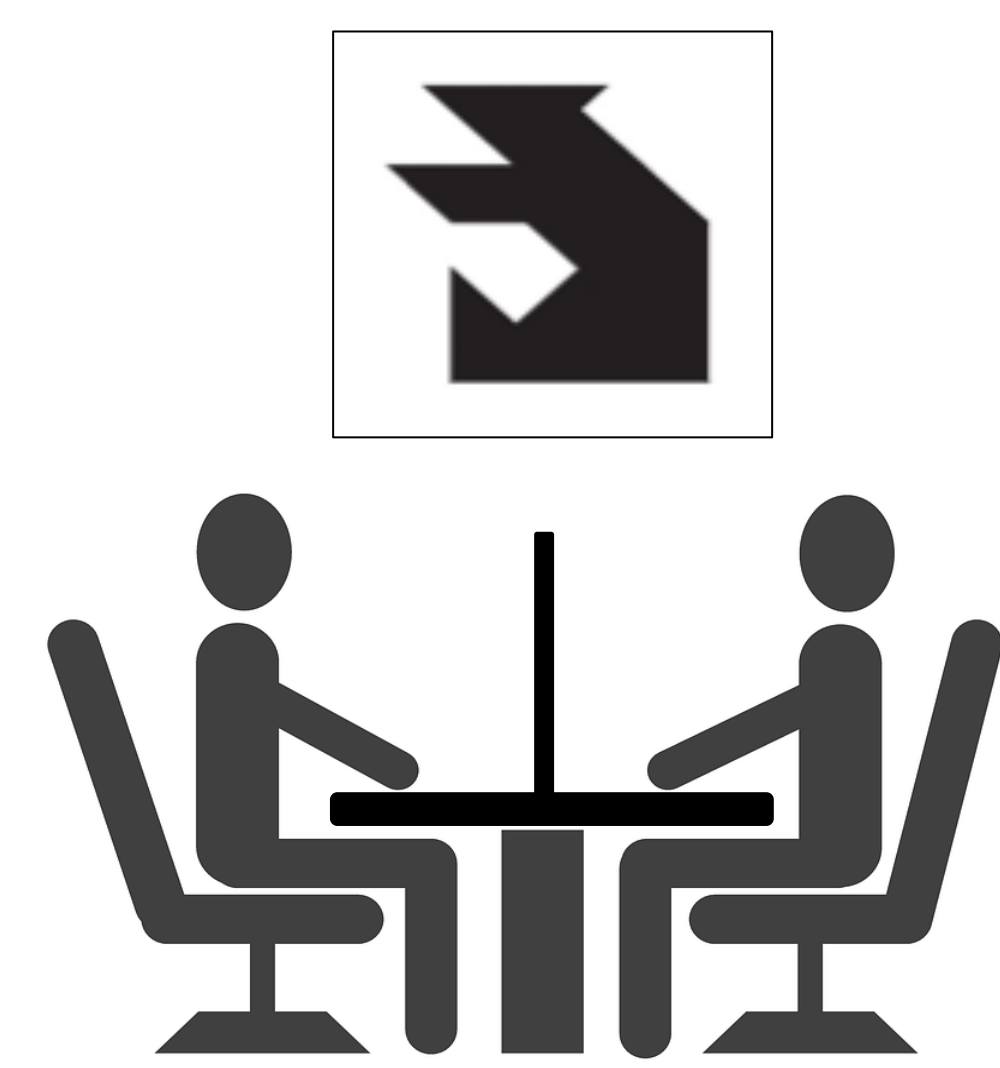


## ABSTRACT

Older adults prefer familiar social partners over novel ones, but little is known about how partner familiarity impacts the dynamics of conversation. In this pilot study, we examined age differences in the development of “common ground” with a friend or a stranger, using a referential communication paradigm in which the participant described an array of abstract figures to a partner whose task was to sort the figures into the same array. Labels became shorter across trials for younger and older partners, showing the establishment of common ground. Younger adults consistently produced longer expressions when they performed the task with a stranger vs. friend, whereas older adults did not. However, older adults showed similar facilitation over trials for both familiar and unfamiliar partners. While older adults were less impacted by partner familiarity in the establishment of common ground relative to young, our findings suggest age-related preservation of audience design as conversation unfolds.

## INTRODUCTION

- In conversation, partners develop brief labels over time to refer to concepts (Wilkes-Gibbs & Clark, 1992), reflecting the achievement of “common ground,” which enables greater efficiency in communication. One might expect friends to communicate more efficiently than strangers, but findings have been mixed (Fussell & Krauss, 1989).



1<sup>st</sup> Round: A big animal... kind of looks like a bear with its arms stretched out toward its toes... It's sitting down, like doing yoga.

2<sup>nd</sup> Round: The bear looking thing that looks like doing yoga.

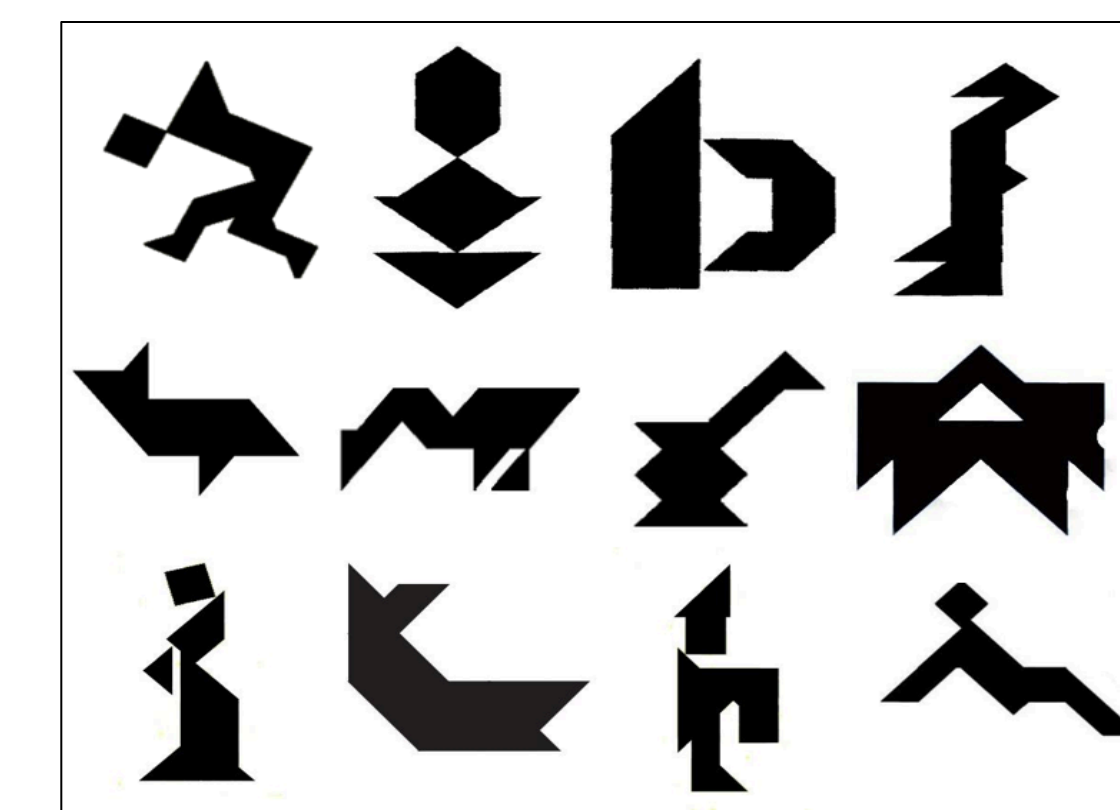
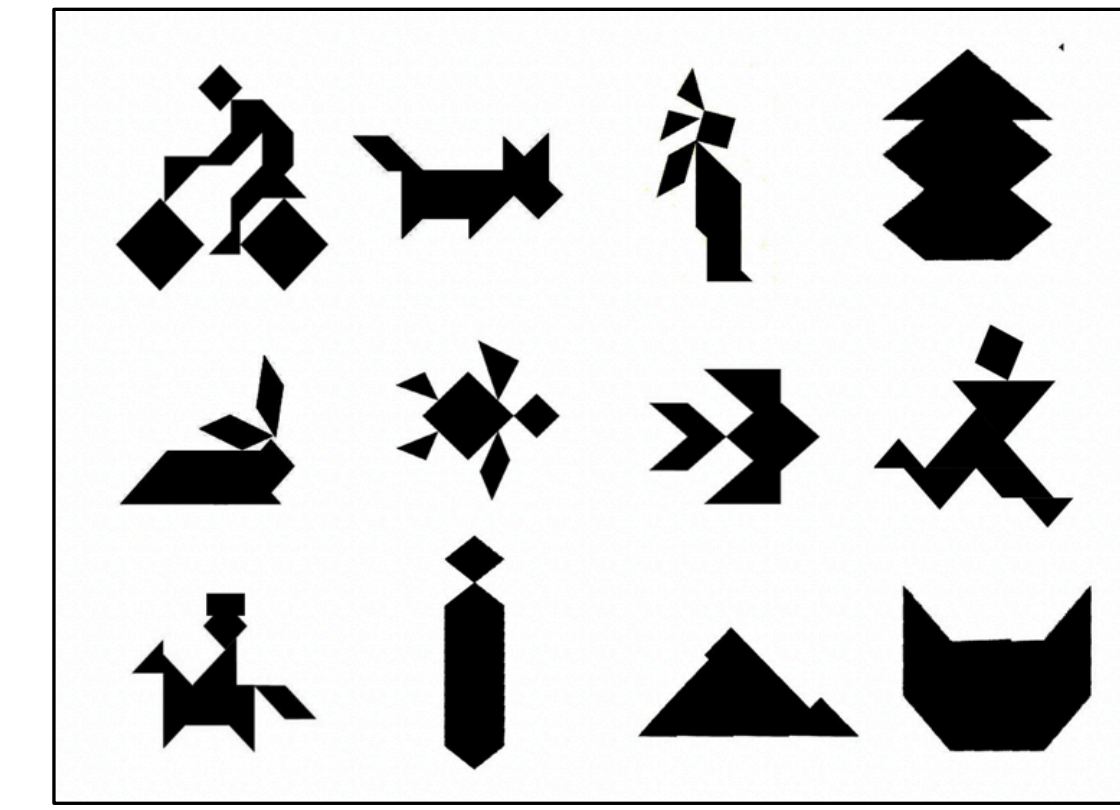
3<sup>rd</sup> Round: The bear doing yoga.

4<sup>th</sup> Round: The yoga bear.

- Socioemotional Selectivity Theory (SST) suggests that with aging, individuals prefer familiar over novel social partners (Cartensen, Mikels, & Mather, 2006). Older adult may also benefit from familiar partners in supporting retrieval from memory (Dixon & Gould, 1998; Raters et al., 2011). However, it is unknown whether older adults might take advantage of partner familiarity in the establishment of common ground.
- In a referential communication task (Yoon & Stine-Morrow, 2019), we examined how quickly younger and older adults develop short labels with a current partner (friend vs. stranger) by measuring expression length during conversation.

## METHOD

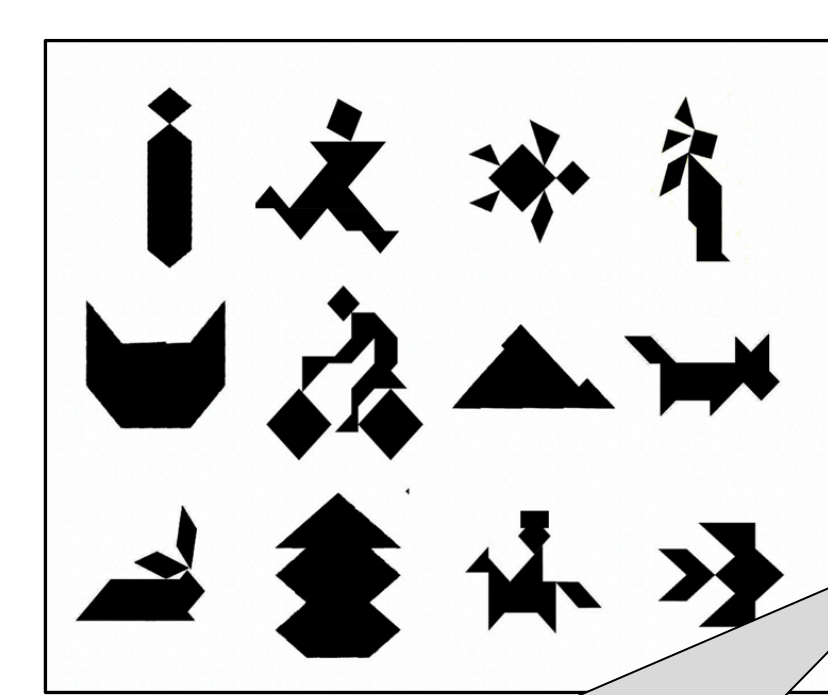
- Participants** were 16 younger female adults (ages 18-25) at the University of Illinois and 16 older female adults (ages 60-80) from the community with college-level education, randomly assigned to a familiar or unfamiliar partner condition.
- Stimuli** were two sets of abstract tangrams normed for easy of naming; the order of conditions counterbalanced across participants.
- Design.** Age x Partner Familiarity (PF; between-subjects) x Task Difficulty (within-subjects)



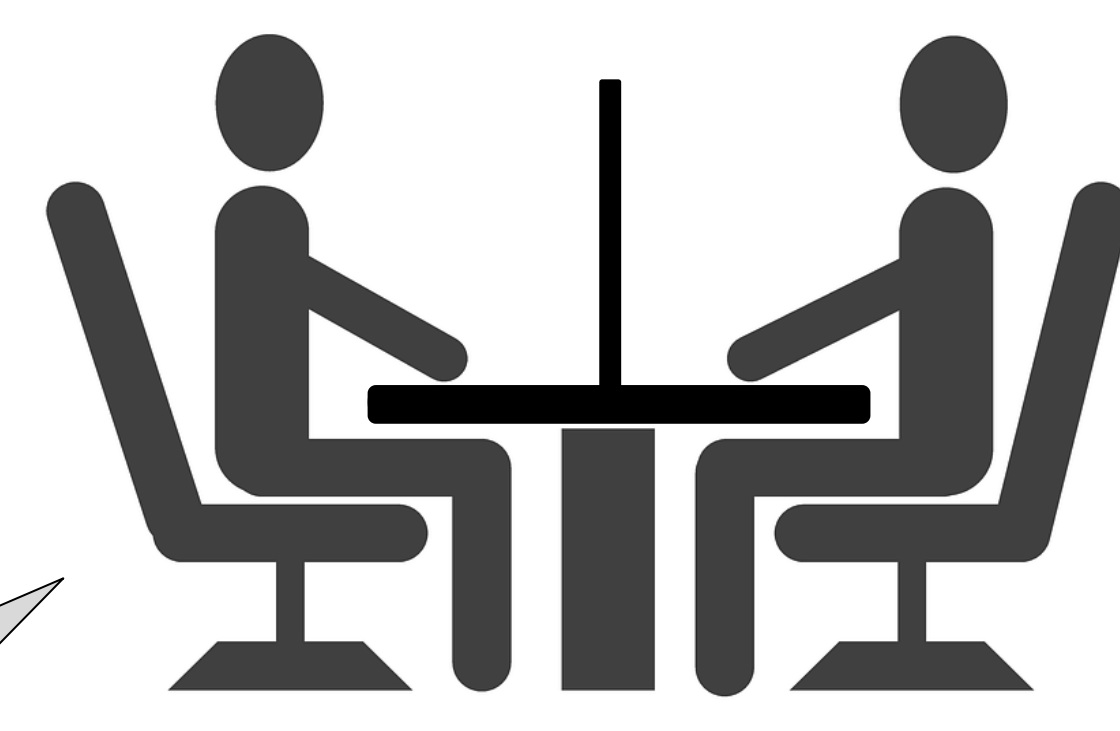
Easy vs. Difficult set

## PROCEDURE

- Referential Communication Task.** The participant described abstract pictures to an unfamiliar (same-aged confederate) partner or a (same-aged) familiar partner whose task was to order the array of tangrams as directed by the participant. Once a common order was achieved, this was repeated over successive rounds up to a time limit of 15 mins per set.



The first one looks like... a neck tie. It has a diamond on the top and...



Participant Partner (Familiar vs. Unfamiliar)

# Adult Age Difference in the Effects of Partner Familiarity During Communication

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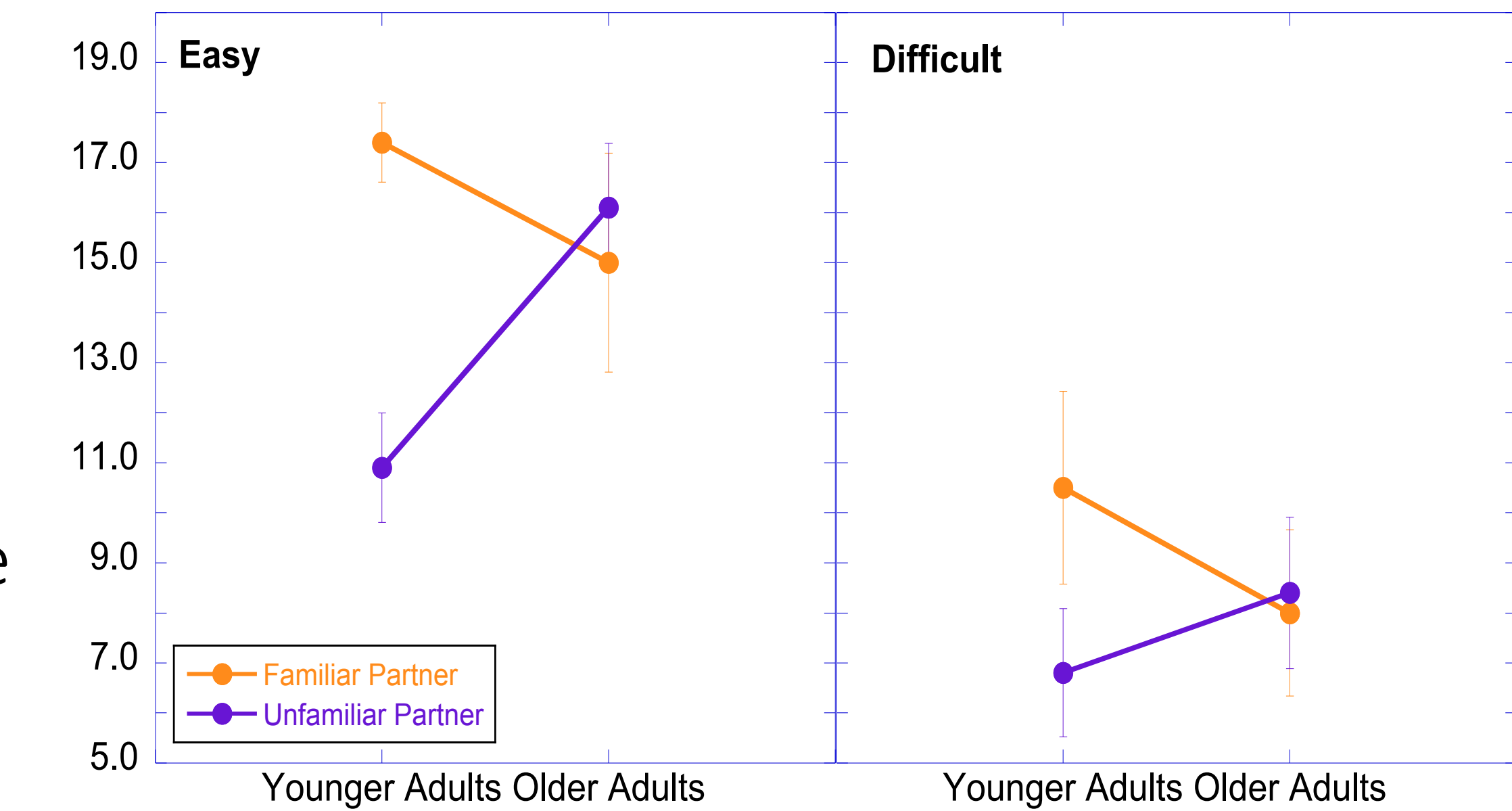
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## RESULTS

- Younger adults completed more rounds with familiar than unfamiliar partners, but older adults did not ( $z=2.6$ ,  $p<.05$ , for Age x PF).
- Participants completed more rounds when tangrams were easily codable ( $z=-7.3$ ,  $p<.05$ ), but difficulty did not moderate the Age x PF interaction ( $z=-0.2$ ,  $p>.05$ ).
- The number of words per round were analyzed across the first four rounds using a mixed-effects model with Round (1-4), Age, Partner Familiarity (PF), and Difficulty as fixed effects.
  - Speakers developed shorter labels across rounds ( $z=-12.0$ ,  $p<.05$ ), and used shorter labels for familiar partners relative to unfamiliar partners ( $z=-2.0$ ,  $p<.05$ ) and for easy relative to difficult sets ( $z=3.6$ ,  $p<.05$ ). The main effect of Age was not significant ( $z=1.5$ ,  $p>.05$ ).
  - The main effects of PF and Round were moderated in a significant three-way interaction among Age, PF, and Round ( $z=-2.2$ ,  $p<.05$ ): for younger adults, expression length tended to be longer for unfamiliar partners ( $z=-1.7$ ,  $p=.08$ ) but differentially decreased across rounds for the unfamiliar partner ( $z=-3.0$ ,  $p<.05$ ); for older adults, neither the main effect of PF ( $z=-1.1$ ,  $p>.05$ ) nor the PF x Round interaction was significant ( $z=0.3$ ,  $p>.05$ ).



## Descriptive statistics (Means (SDs)) for sample characteristics.

Variable	Younger Adults		Older Adults		1	2	3	4	5	6	7	8
	Familiar (n=8)	Unfamiliar (n=8)	Familiar (n=8)	Unfamiliar (n=8)								
1. Age	19.4 (0.8)	18.5 (2.4)	73.6 (4.5)	73.3 (6.6)								
2. Education	12.0 (0.0)	12.8 (2.1)	14.6 (1.1)	16.0 (1.6)	<b>0.74</b>							
3. Vocabulary	6.9 (1.6)	6.5 (1.6)	12.4 (2.3)	11.3 (4.3)	<b>0.72</b>	<b>0.61</b>						
4. Speed	0.57 (0.52)	0.58 (0.93)	-0.43 (1.21)	-0.72 (0.50)	<b>-0.58</b>	-0.17	-0.28					
5. Reading Span	7.2 (2.2)	5.8 (1.3)	5.7 (2.1)	4.4 (1.7)	<b>-0.38</b>	-0.22	-0.03	<b>0.36</b>				
6. Flanker (proportion difference)	0.20 (0.13)	0.15 (0.12)	0.15 (0.11)	0.16 (0.14)	-0.07	0.05	-0.31	-0.25	-0.27			
7. Relationship duration (months)	45.4 (75.7)	0.0	309 (258.8)	0.0	<b>0.38</b>	<b>0.38</b>	0.23	-0.29	-0.17	0.09		
8. Average Expression Length	6.5 (6.8)	14.3 (11.0)	9.5 (8.8)	11.4 (11.4)	0.01	0.20	-0.11	0.06	<b>-0.43</b>	0.17	-0.04	
9. Expression Length (Round 1 - Round 4)	9.7 (7.9)	13.9 (13.4)	9.2 (11.0)	10.6 (12.7)	-0.12	0.02	0.01	0.13	-0.26	0.10	-0.04	<b>0.52</b>

## CONCLUSION

- Older adults showed evidence of audience design, taking advantage of the establishment of common ground to develop increasingly shorter labels in a referential communication task.
- Older adults were also sensitive to referential difficulty, using longer expression to describe less codable items.
- Younger adults showed more efficient communication with familiar than with unfamiliar partners.
- However, possibly contrary to the predictions of Socioemotional Selectivity Theory, older speakers were less likely than their younger to reduce expression length for familiar partners, which may reflect 1) Reduced accommodation to social context, or 2) Sensitivity to communicative challenges of older listeners (regardless of social relationship).

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This research was supported by a Beckman Postdoctoral Fellowship to Si On Yoon and Michelle Rodrigues.