



EXPLORING THE IMPACT OF EXPOSURE TO AGE  
GROUPS ON THE DEVELOPMENT OF THE  
OTHER-RACE EFFECT IN INFANCY WHILE  
ASSESSING THE QUALITIES OF ONLINE AND  
IN-PERSON DATA COLLECTION



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# WHAT IS THE OTHER-RACE EFFECT?



- A phenomenon where the individual has the tendency to recognize and remember faces of one's own race more readily than those of other races (Kelly et al., 2005; Quinn, Lee, & Pascalis, 2019; etc.)

**6 months:** discriminate individual faces of their own- and other-race

**12 months:** easy processing of other-race faces close



**3 months:** start to demonstrate preferences for own race faces

**9 months:** ORE develops



# WHAT IS THE OTHER-AGE EFFECT?

Enhanced processing and recognition of faces of people around the same age compared to those of other ages (Rhodes and Anastasi, 2012). Seen in adults, children, and adolescents.



9-month-olds have better discrimination  
of adult than infant faces



It is believed to be a result of limited exposure to other-race faces in the environment (i.e. home, school, workplace)




WHAT CAUSES THE ORE AND OAE?



# ONLINE VS. LAB DATA COLLECTION

Technological advances have allowed infant development to be studied remotely using computers. Current events, particularly the COVID-19 pandemic, limited experiments from taking place in a laboratory due to social distancing.



A photograph of a baby lying in a wicker basket. The baby is wearing a black long-sleeved shirt with white polka dots and is looking towards the camera. A baby bottle is visible in the bottom left corner, and a stuffed animal is partially visible on the right. The background is a plain, light-colored wall.

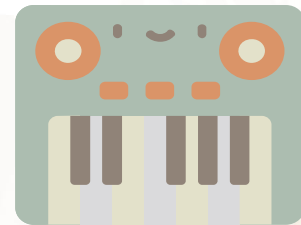
Examine if infants' looking behavior towards same- and other-race faces is related to the age of the individual whose face is being analyzed

## PURPOSES:

address quality of data collection by comparing traditional lab-based data collection with data collected using the recently developed and online Look-It platform



# HYPOTHESES



## HYPOTHESIS 1

I hypothesize that 12-month-old infants will process adult faces of the same race better than infant faces of the same race and adult/infant faces of another race due to frequent exposure.

## HYPOTHESIS 2

I hypothesize that the data collected from the Look-It platform will be just as reliable as data from a laboratory.



# METHODS



- 12-month-old infants will participate in this study
- Recruited through the Loyola University Center for Research in Child Development laboratory or online through Look-It
- Data will be checked for quality
- To be eligible, infants have to meet the age requirement, be born full-term, and have previous exposure to the English language through their home environment.







# METHODS



## **Familiarization stimuli**

- During familiarization, participants in both the laboratory and on Look-it viewed pictures presented on the screen. For the participants completing the study in the laboratory, one woman was presented. For the participants completing the study on Look-it, either one woman or one child was presented.
- Each person, whether adult or child, in a photo were shown in equivalent cropped oval shapes and had no jewelry, glasses, makeup, or hair present. The pictures were set against a white background. The familiarization phase where the infant participants viewed these photographs lasted for 30 s.



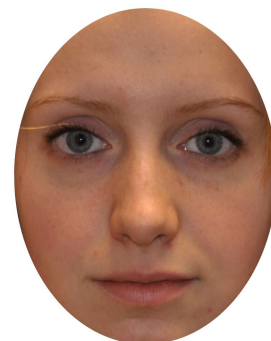
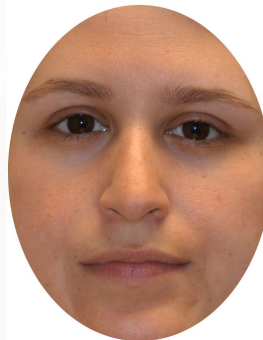
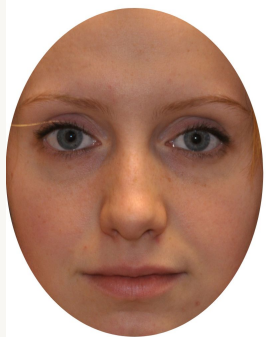


# METHODS



## Visual-paired comparison (VPC) stimuli

Pairs of pictures were presented on the screen. These include the face viewed during the familiarization. All of the faces had a neutral expression and were presented against a white background. The stimuli were all in equivalent cropped oval shapes and had no jewelry, glasses, makeup or hair present. Each paired comparison lasted for 7.5 s.





# APPARATUS



Any parent or legal guardian could participate in the studies posted on the Look-it platform with a desktop or laptop. They also had to have a working webcam, microphone, and speaker.

For the in-person CRCRD laboratory version, any parent or legal guardian could participate in the studies posted on the CRCRD website and make an appointment with the lab. They had to arrive at Loyola University Chicago and complete the study in Coffey Hall.

## FaceLook



Last edited: Apr 17, 2023  
Lab: Cognitive Development Lab


Your child will view a picture of an adult's or child's face, followed by a presentation of pictures of the same person and a new face. We will then have your child look at another adult's or child's face from another race, and then show this face paired with a new face. We want to see which face your child will pay attention to more.

**Purpose:** One thing that babies love to do is look and faces are just one of many possibilities. Infants usually prefer to look at faces that belong to races that are familiar to them, and this phenomenon starts to appear when the infant is just 5 months old! We are interested in examining your baby's looking behavior, specifically at the face of someone from an unfamiliar race. This is the concept of the Other Race Effect, and we are studying whether this is impacted depending on the age of the face being looked at. This study benefits from babies participating no matter what their previous familiarity with faces from different races, and the results will increase our understanding of the development of face processing and face preferences in infants.

Duration: 10 minutes Exit URL: <https://lookit.mit.edu/studies/history/>

**Participant eligibility:** Infants age 9 months to 12 months, born full-term (38+ weeks) who live in the United States. **Compensation:** For your participation, you will be sent a \$5 Amazon e-gift card after we confirm your consent video and check that your child meets all eligibility criteria. If you have multiple children that participate, you will receive one gift card per child. Each child is able to participate one time. Your baby should be clearly visible in the video consent and throughout the trials. You should receive the gift card to the email provided within 1 week of your participation.

Minimum age cutoff: 0 years 9 months 0 days Maximum age cutoff: 1 year 0 months 0 days

 **Center for Research in Child Development**  
Loyola University Chicago

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**Thank you for your interest in participating in research at the Center for Research in Child Development!**

We invite you to submit information to be considered for future studies. We will contact you if you are selected to participate in the study. We will contact you about our research, about questions, and how your information will be used and protected at all times.

**Why are we requesting this information?** We request your information so that we can quickly contact interested families with research opportunities.

**What happens next?** After receiving your contact information a number of our team will contact you to tell you more about the study, research goals, and all costs. Other opportunities may be available based on our current projects and your child's age.

**Are there any incentives in giving you my information?** We do not have any financial incentives or rewards. We do not have any financial incentives or rewards. We do not have any financial incentives or rewards.

**What are the benefits of giving you my information?** We will contact you to tell you more about the study, research goals, and all costs. We will contact you to tell you more about the study, research goals, and all costs. We will contact you to tell you more about the study, research goals, and all costs.

**Confidentiality:** The information provided about you and your child will be kept confidential and stored by following policies for storing personal information according to Loyola University Chicago Information Management Policy.

**Voluntary Participation:** Completing our contact form is voluntary. You do not need to complete the contact form to participate in the studies at any time. You can stop participating at any time.

**Contacts and Questions:** If you have any questions, please email us at [info@crcrd.org](mailto:info@crcrd.org). You can also call (708) 754-2200. We are available from 9:00 AM to 5:00 PM, Monday through Friday. We are available from 9:00 AM to 5:00 PM, Monday through Friday.

**Form fields:**

- First Name\*
- Child Name
- Child DOB
- Phone
- Email\*
- Preferred method of contact
- Add a message (optional)
-



- The parent or legal guardian provided verbal consent and filled out a demographic form.
- They were given the option to watch a 10 s preview of the familiarization pairs of pictures.
- They were asked to face the computer screen with their eyes closed,

and their child would view the screen on their lap.

Each participant viewed a picture during the first familiarization with the

faces belonging to the same race as the participant. In both conditions and

Once familiarization ended, the VPC procedure starts, where infants viewed a total in both versions of the study, the familiarization phase began and 30 s.

of three pairs of pictures: 1) face A which infant saw during familiarization, paired

with face B which infant saw during familiarization, 2) face A, paired with the

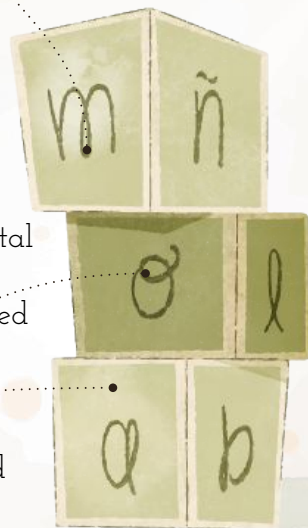
novel face C, and 3) face B, paired with the novel face C. Each pairing appeared


on the screen for 7.5 seconds. The first VPC procedure would consist of pictures of

faces that belonged to the same race, whether it was adult faces for the participants


in the laboratory or children's faces on Look-It.

# PROCEDURE






Each participant viewed a picture during the second familiarization with the faces belonging to the other-race. In both conditions and versions of the study, the familiarization phase lasted for 30 seconds.

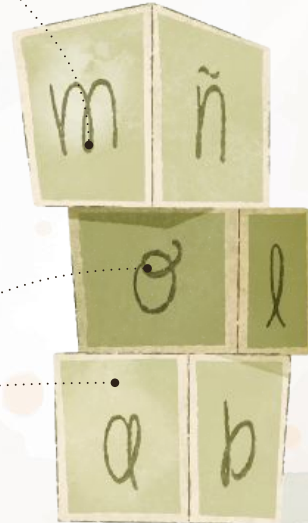


Once familiarization ended, the VPC procedure started where infants viewed four pairs of pictures: Face A and B (belonging to the same race of the participant) and Face C and D (belonging to another race compared to the participant). Each pairing appeared on the screen for 7.5 seconds. The second VPC procedure would consist of pictures of faces that belonged to the other race as compared to the participant, whether it was adult faces for the participants in the laboratory or children's faces on Look-It.



At the end of the experiment, parents were taken to a page where they were asked the types of uses of their video that they are okay with and selected privacy settings. At this point, they were also given the option to withdraw their videos.

# PROCEDURE



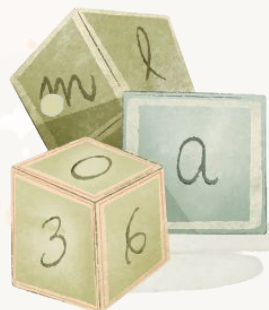
# BEHAVIORAL CODING

- The data will be coded using the Datavyu software (Datavyu Team, 2014).
- This software is used to code and analyze behavioral observations from video sources. Three videos were coded for each participant: 1 for familiarization and 2 for VPC trials.
- Each video was coded for infants' direction of looking to the screen: (L) indicated gaze to the left, (R) indicated gaze to the right, and (O) indicated looking off-screen.



# STATISTICAL ANALYSES

Analyses are conducted with SPSS. For the test trials, looking time was calculated as the ratio of looking time at novel stimulus to accumulated looking time to both stimuli.



one-sample t-tests	correlations	between-subjects analysis of variance (ANOVAs)	paired-comparison t-tests
test for novelty preferences by determining if look durations to the novel stimulus were above the chance value of 50%	examine individual differences, whether participants' looking times during familiarization were associated with looking times during VPCs	examine the differences in stimulus processing between age groups and conditions	measure the differences in looking times to familiar and novel faces within age groups



# THANK YOU!

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