

INTRODUCTION

- Emotion recognition is important for social interaction
- Individuals have difficulty recognizing emotions when expressed by members outside their cultural group (Elfenbein & Ambady, 2003)
- Cross-cultural differences in emotion recognition appear in childhood
 - Chinese and Australian children (Markham & Wang, 1996)
- Methodological issues in past literature:
 - Are differences due to *culture* or *ethnicity*, or both
 - Expressions may be biased towards Western representations of emotions (e.g., Facial Action Coding System – Ekman & Friesen, 1976)

Purpose of the Present Study:

- Create a stimulus set that captures cultural variation in emotional expressions
- Disentangle effects of race and culture on emotion recognition
- Chart the development of these cross-cultural differences

METHOD

Stimulus Creation

- 4 Racial/Cultural groups:**
 - Caucasian Canadians (5 males; 5 females, mean age 21.2)
 - South Asian Canadians (5 males; 5 females, mean age 22.3)
 - Caucasian Immigrants (5 males; 5 females, mean age 23.8)
 - South Asian Immigrants (5 males; 5 females, mean age 23.5)
- Procedure:**
 - Photographed posing neutral, happy, sad, angry, and fearful facial expressions
 - Several strategies to elicit emotion:
 - Practice in a mirror
 - Emotion Scenarios

METHOD

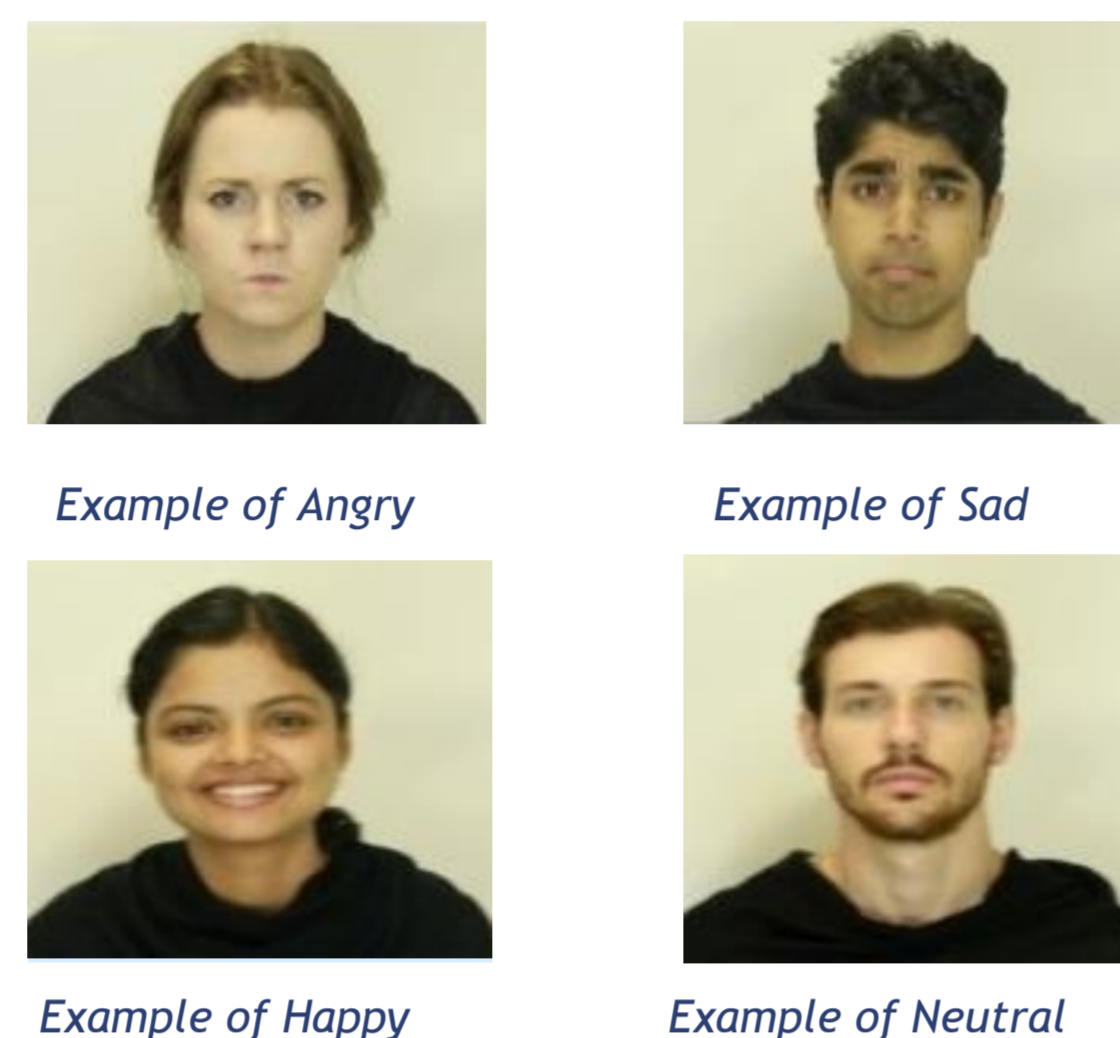
Emotion Recognition Task

Participants:

- South Asian Canadians and Caucasian Canadians
- Younger children, ages 6-7 (n = 27)
- Older children, ages 8-10 (n = 36)
- Adults, ages 18-40 (n = 73)

Procedure:

- Computer task: Identify the emotion in each face in a forced-choice design
- For children, task was presented as a game with child-friendly language



PREDICTIONS

- H1:** Children will score significantly lower on emotion recognition compared to adults
- H2:** Participants will be most accurate at recognizing emotions when expressed by people who are similar to them in both race and culture

RESULTS

Overall Accuracy

- Main effect of age ($p < .001$):
 - Adults > Older children > Younger children
- Main effect of culture of face ($p < .001$), but no race x culture of face interaction:
 - All participants performed best on Caucasian immigrant faces and worst on South Asian immigrant faces

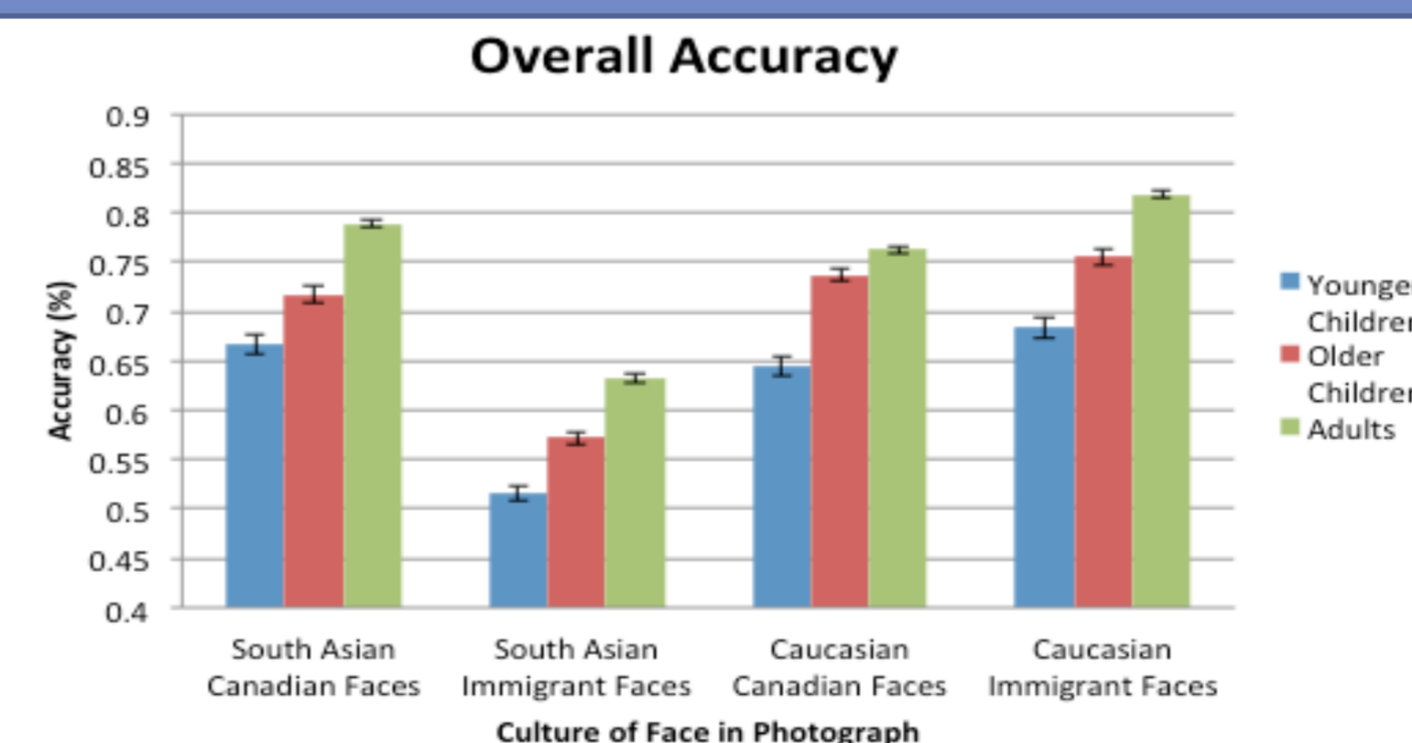
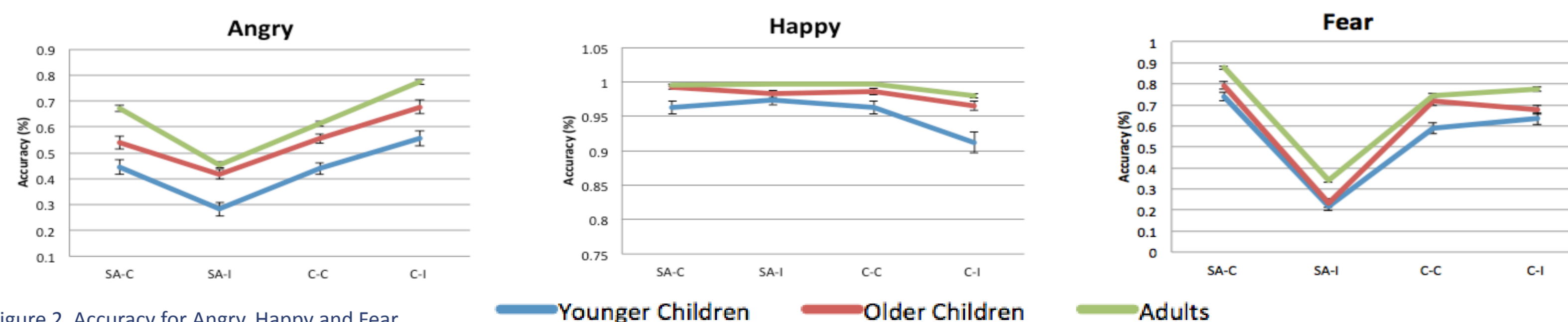


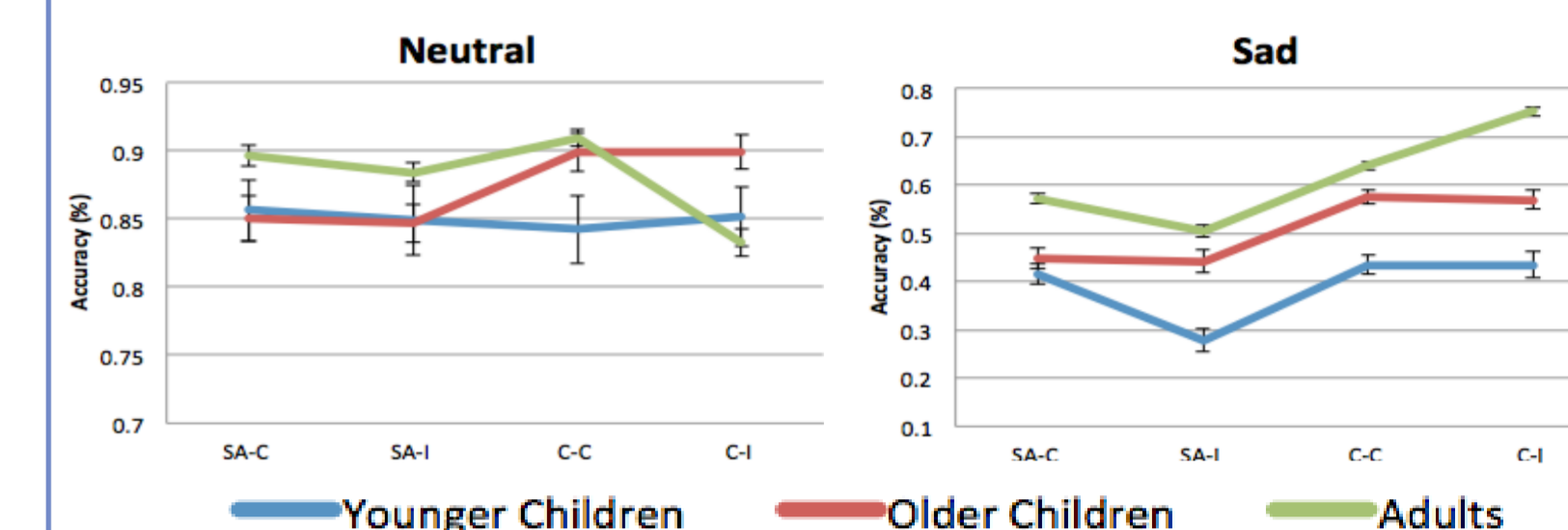
Figure 1. Emotion Recognition Accuracy

Overall Emotion Effects

- Accuracy was higher for some emotions than others (Happy > Neutral > Fear > Angry > Sad)
- Performance on certain emotions was affected by the culture of the face (e.g., Fear), but performance on other emotions was not (e.g., Happy); this differed depending on the age of the participant



RESULTS CONTINUED



DISCUSSION

- Emotion recognition ability increases with age
- The race of the participant did not result in cross-cultural differences in emotion recognition
 - All participants were best at recognizing emotions in Caucasian immigrants, and worst at recognizing emotions in South Asian immigrants
 - Why?
- Most cultural variability in neutral and sad expressions of emotion

Practical and Scientific implications

- Interactions in multicultural societies/schools
- Advance our understanding of cross-cultural emotion recognition and add to the scarce developmental literature

Future Directions

- Analyze data from non-South Asian and non-Caucasian participants to provide information on how well individuals from similar cultures from the photographs perform in comparison to individuals from different cultures

ACKNOWLEDGMENTS

A special thanks to the Ontario Science Centre and several elementary schools in the Greater Toronto Area for allowing us to conduct research!