Changes in Emotional Recognition in Children Ages 7-9 and 9-11

Introduction

This study is examining data to determine the age-related differences in emotional recognition in two age groups of school aged children, 7-9 and 9-11. These children are participating in a current longitudinal study. Our hypothesis was that there would be differences in emotional recognition between the age groups in the way they answered to a prompt.

We analyzed data from previous studies where children were shown an image of 5 cartoon children and were asked to describe how happy and sad the child in the middle was feeling. We categorized the answers into different categories depending on the theme of their answers. The results matched with our hypothesis that there was a difference in emotional recognition between the age groups in the way they answered to a prompt.

Practical implications of these findings are that it concludes that emotional recognition does change within genders and school years. Further research should be taken to determine potential race differences.

This research is provided by Dr. Sawa Senzaki.

Methods

- The children in the study are participating in an ongoing longitudinal study. We analyzed data from 27 participants, with 54 data sets in total.
- The participants were shown the Happy Sad task where they were shown images of 5 cartoon children with varying emotions. They were asked to describe how the child in the middle was feeling, both for sad and for happy emotions on a scale from 0 to 9, with 9 being the most happy/sad. We then wrote down everything they said for their reasoning for why they chose the number that they did.
- We coded the data into 6 different categories : 1) physical emotion (describing features like eyes, mouth, etc.), 2) external factors (things other than the child in the middle), 3) story telling (creating a story for why child is feeling a certain way), 4) emotions (examples such as "they look sad/happy"), 5) numerical (examples include "they look like the number 6), and 6) neutral (other answers such as "because", "same as before" etc.).
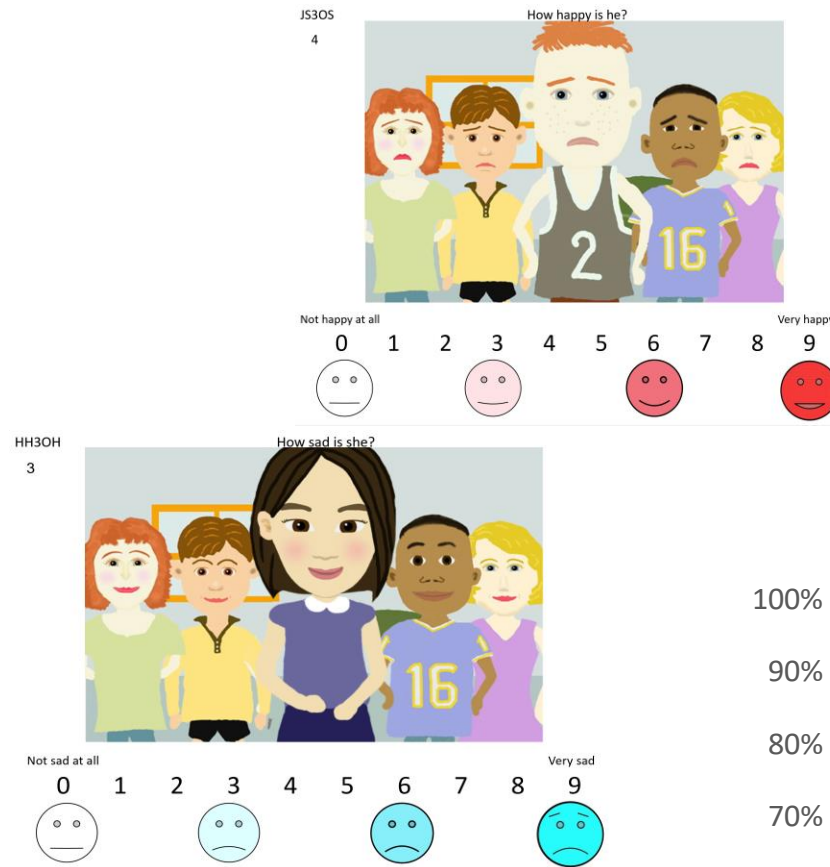

## Research During the COVID-19 Pandemic

Conducting research during the COVID-19 pandemic required flexibility and patience. With regulations, news and society constantly changing we needed to create multiple back up plans as well as additional options and ideas. Communication is also important because we are almost fully virtual, email and video communication was extremely important. It has been an interesting and valuable experience to participate in Dr. Senzaki's research.

Results

Most Used Explanations
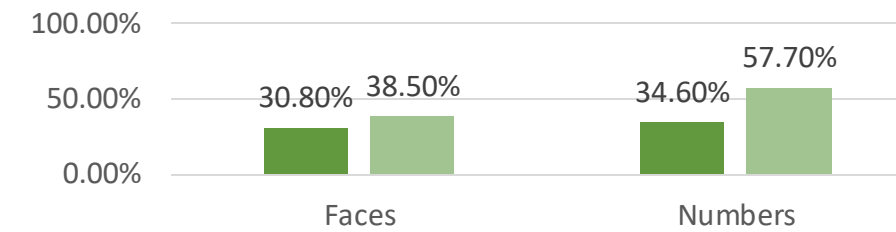
Percentage of Emotion Words Used
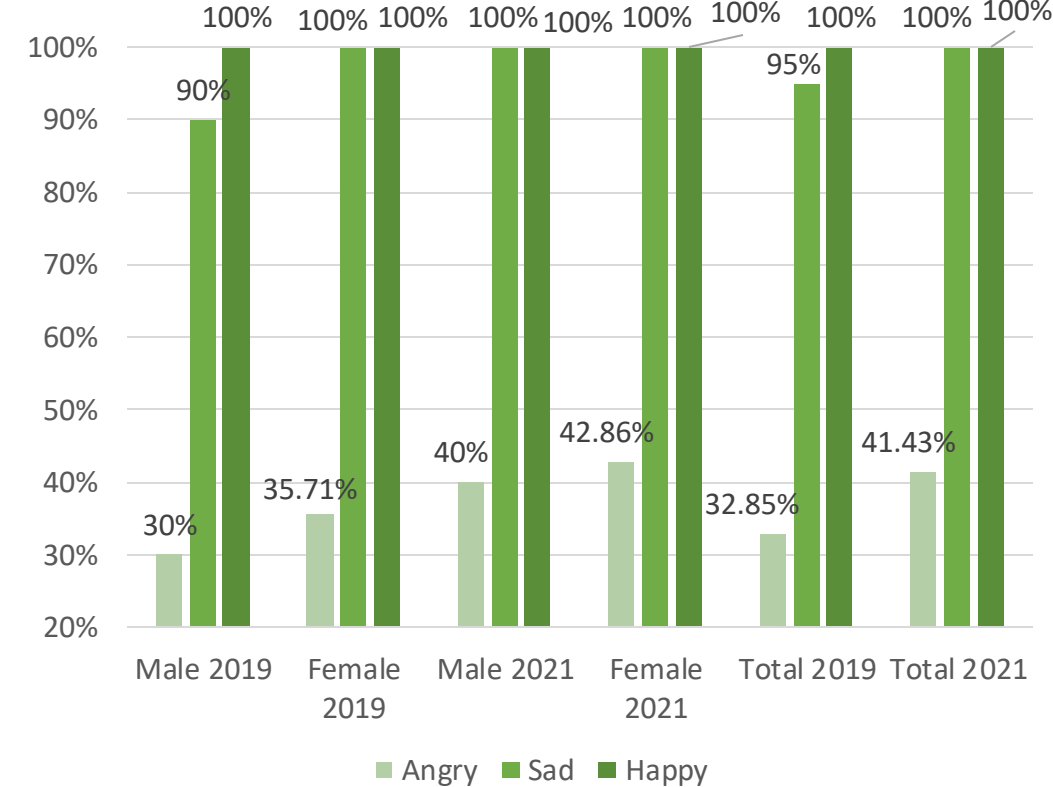
On average, 3% of participants used emotion words in 2019. For males, 100% used happy, 90% used sad, and 30% used mad. For females, 100% used happy and sad and 35.71% used mad. 3.21% of participants used emotion words in 2021. For Males, 100% used happy and sad and 40% used angry. For females, 100% used happy and sad, and 42.86% used angry. On average, 3.54 words were used to describe the physical attributes of emotion in 2019, males used 3.1 words and females used 3.57 words. On average, 4.65 words were used in 2021, males used 4.5 words and females used 5.86. 30.8% in 2019 used the bottom faces, whereas 38.5% used them in 2021. 34. 6% used the bottom numbers in 2019, whereas 57.7% used numbers in 2021. 46.2% used the background kids in their answer in 2019, whereas 34.6% used them in 2021.

Discussion

Overall, the hypothesis matched with the results of the study that there was a difference in emotional recognition between the age groups in the way they answered to a prompt. Due to COVID-19, flexibility and patience is a strong strength of this study. was However, our study had some limitations. For example, the sample size of this study could have been higher. Also, having the study being held online versus in-person, as it used to be in the past. Lastly, completing research with children is difficult because if the child is not motivated to complete the tasks fully, the children don't really care. Therefore, the answers the children had may not be accurate or well thought out.