A guide to reading Harada et al., 2020

SimpleWriter Abstract Translation (the abstract translated into the 1000 most commonly used English words)

The ways of the people in your own group you grew up with have to do with what your brain does when you look at faces and feelings on faces. However, little is known about whether the people you are looking at are in your own group makes your brain do different things when you look at faces showing feelings for in-group or out-group members. We did a study where we looked at whether how the brain acted had to do with whether faces showing mad or scared feelings were from your own group or not. We used brain imaging to see what the brain did when the study people were looking at feelings on faces of people from a place more West and people from a place more East in three groups; two groups who lived in the same place with people who looked like them and a group of people who lived in one place and looked like the all of people did in another place. While their brain doings were looked at, the study people had to say whether one of the faces was the same as one of two other faces on top of it. Peoples' brains worked harder when people saw mad and scared feelings on the faces of people like them who were in their in-group. And if they were from the more East place parts of peoples' brains that work harder for things that are important to or about you worked harder for mad and scared faces from their own group. So the place you are from and the group of people you grew up with change how you see feelings on peoples' faces if they are from your group or other groups of people.

This paper uses an encoding approach to fMRI, so is a bit more straightforward to read than some others. But there is a LOT of detail to wade trhough.

- Focus on the **Introduction** and **Discussion**. Look at the experimental **task design** summarized in **Figure 1B** and the **Results** shown in **Figures 2, 3, 4** and **6**.
- Don't get too caught up in the details of the **Methods**. I will tell you what to focus on below. Completely **SKIP** sections **2.5** and **2.6.**
- In the **Results**, focus on the results illustrated in **Figures 2-4** and **6**. In the **Discussion**, I want you to **ignore** what they say about correlations between brain activity and collectivism. Look at the scatter plots and see if you can come up with a reason why I would say that.

Try to answer the following questions:

Introduction

- What was previously known about the influence of culture and race about how we respond to facial emotion?
- Why did the authors think it would be important to look at the amygdala? What outstanding question would it address?

Methods

- How did they define group membership?
- How was race included in the experimental design?

- What did participants do in the MRI scanner?
- What were the two different types of stimuli and why were they both included?
- How did they measure collectivism?

Results

- What were the behavioural findings for reaction time, accuracy, and collectivism?
- What was the main pattern of findings for the amygdala? What patterns of brain activity reflected the "cultural in-group effect?"
- What pattern of brain activity did they find in one particular group of participants when they looked at the whole brain?
- For the brain-behaviour correlations, how did they compare individual differences in brain activity to look at the relationship with collectivism? What might be a problem with doing those analyses?

Discussion

- How do they describe the overall meaning and importance of the results?
- How do they interpret amygdala findings?
- How do they interpret the findings related in one particular group from looking at the whole brain?
- What are the larger cultural or societal implications of these findings?

Also ALWAYS keep in mind these general questions. (Though many of these are covered by the questions above)

- ***Big Picture Question.*** *What is the "big picture" context of the present research? That is, what is it about the brain/mind that compelled these researchers to carry out the present study?*
- ***Background:*** *Based on what is already known from past empirical research, how does that leave an open question that is addressed in this study? What is the main hypothesis, if there is one?*
- ***Specific Research Question.*** *What was/were the specific question(s) addressed in the research?*
- *What were the independent (IV) and dependent (DV) variables?*
- *Who were the participants and how many were there?*
- *What were the stimuli?*
- *What were the instructions for participants?*
- *Stimulus presentation: What did they see, when, for how long, and in what order?*
- *What were the results in order of importance and relevance to initial question(s)?*
- *What were the conclusions that the authors claim are most directly implied by the results and most relevant to the questions at hand, in order of importance?*