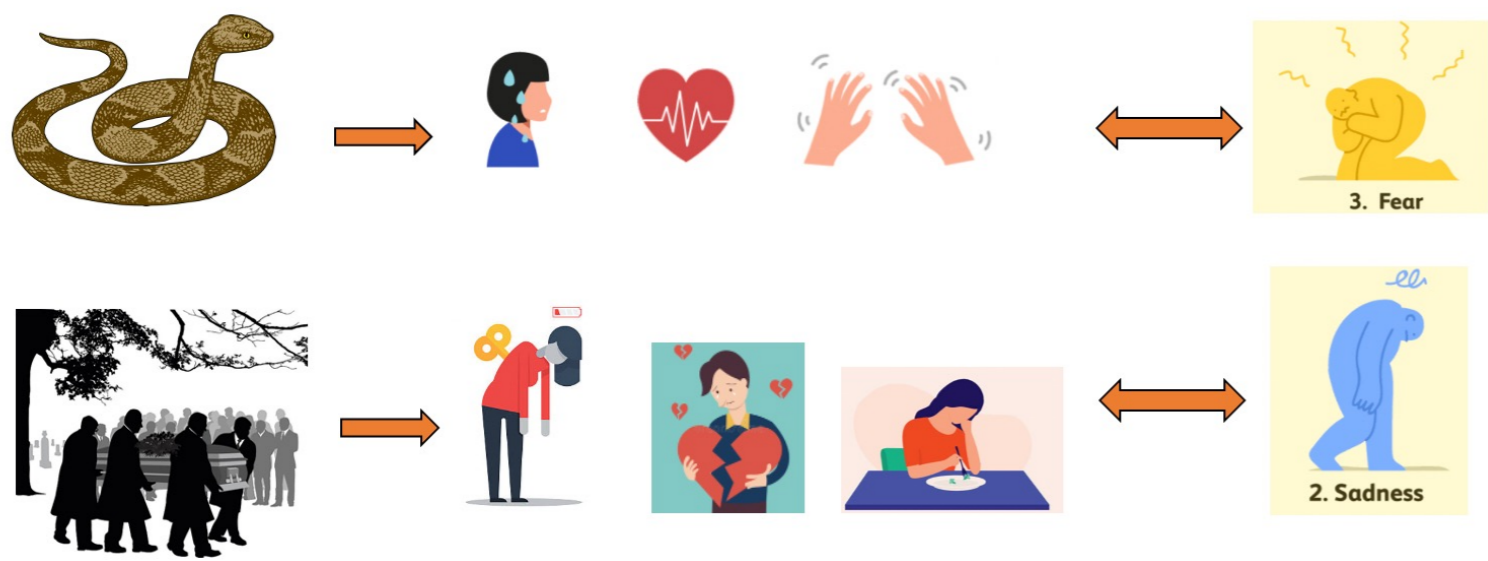


Emotions are felt in specific body parts and activate motor and somatosensory maps, suggesting that emotions are strongly rooted in our bodily experiences.

BACKGROUND

Emotions & Bodily sensations (e.g., “I am touched”). It’s NOT just ways of saying *but* emotions are associated with specific body parts (Nummenmaa, Glerean, & Hietanen, 2013).



DESIGN

26 Female Participants (M=27,75; DS=5,75), right-handed with no previous neurological or psychiatric illness.

5 Emotions (Happiness, Serenity, Fear, Anger, Sadness) X **4 Body parts** (Face, Hand, Trunk, Feet)



1h fMRI scanning with 3 blocks

- Somatosensory functional localiser task
- Emotional recall task
- Motor functional localiser task

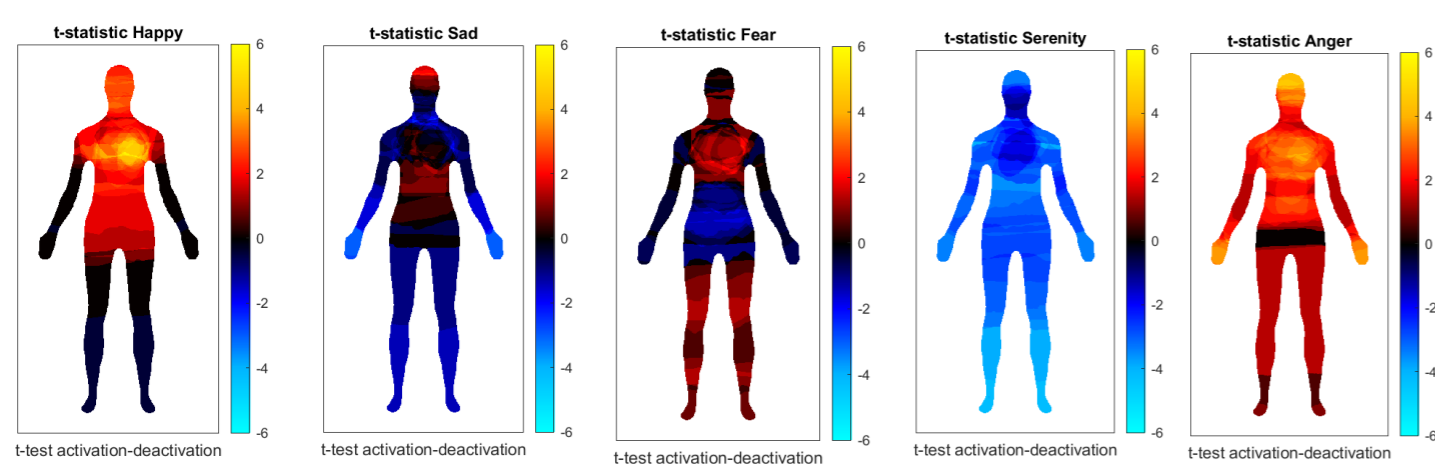
After the fMRI session, all participants coloured Body Silhouettes aimed at capturing the body sensations felt during the Emotional Recall task.

Whether these emotional somatotopic maps can be found in the brain is still unknown.

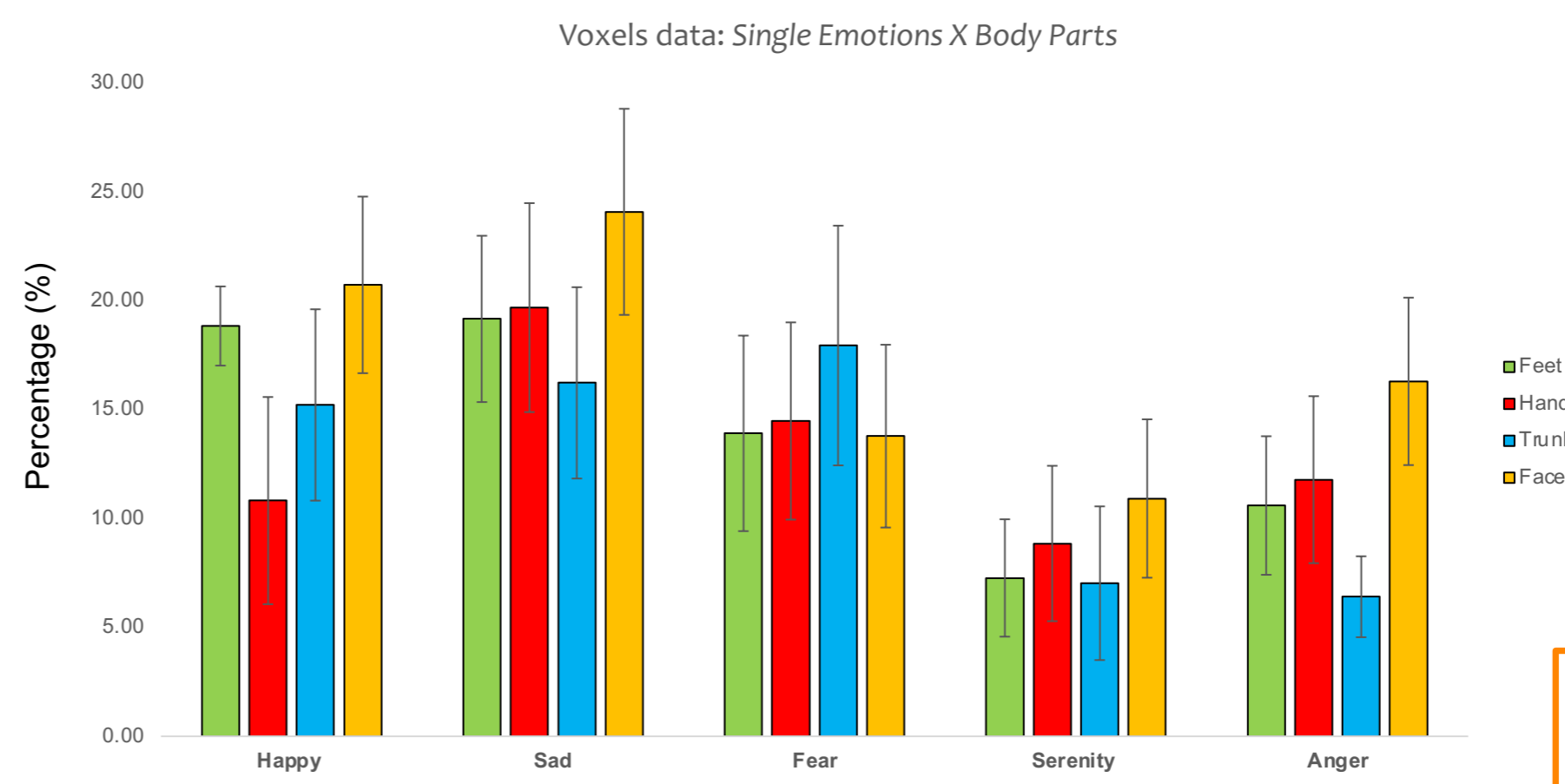
- Investigate the extent to which emotions can be represented in a somatotopic fashion.
- Understand whether the (body) specificity for discrete emotions that seem to be there in behavioural studies is also observable at the brain level.

RESULTS

- Behavioural results: body silhouettes

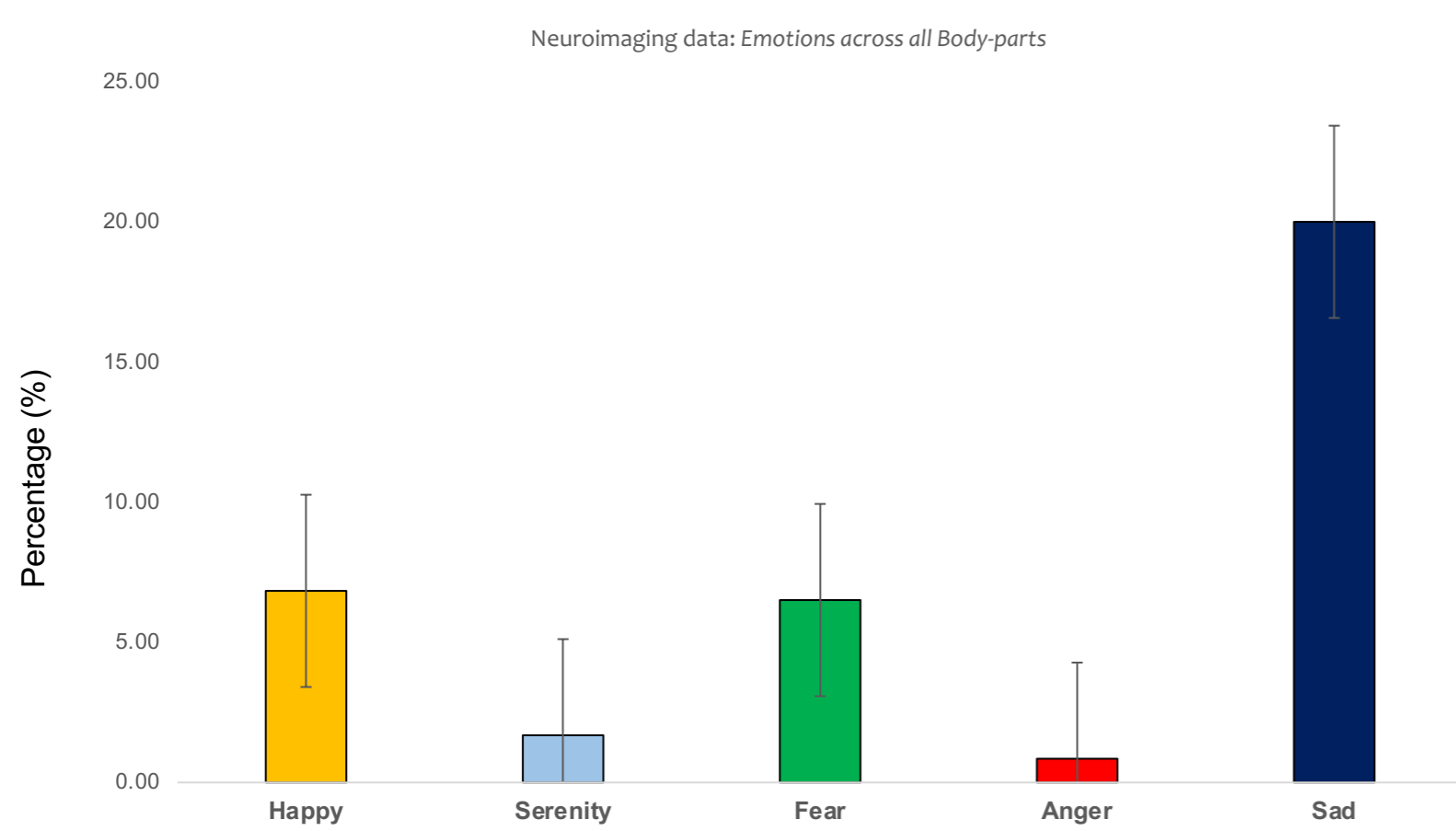


- Voxels and Pixels Analysis



One-sample t-test against zero on Level I Analysis revealed that all emotions activated specific body parts.

- Neuroimaging results



Level II Analysis: Discrete emotions overlap with body representations across somatosensory and motor areas.

