Introduction
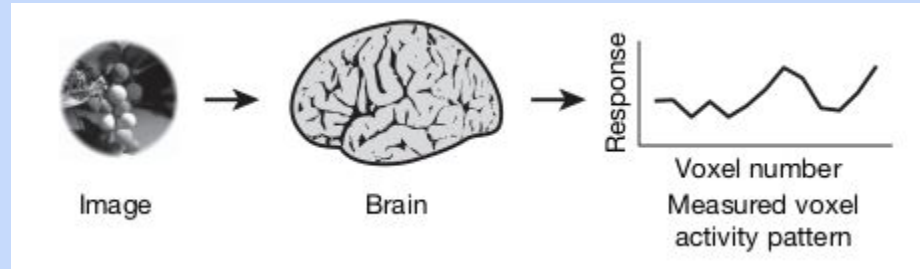
Background:

fMRI measurement of brain activity while visually perceiving an image stimuli

Kay, Naselaris, Prenger, & Gallant, (2008)

Question:
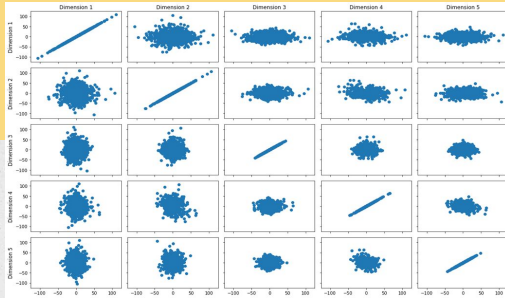
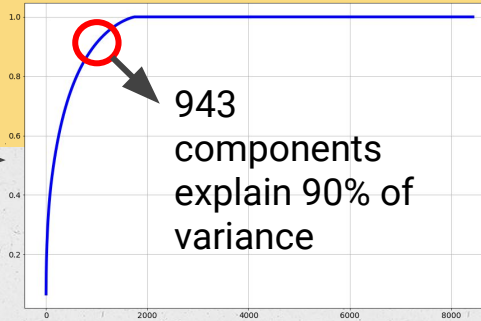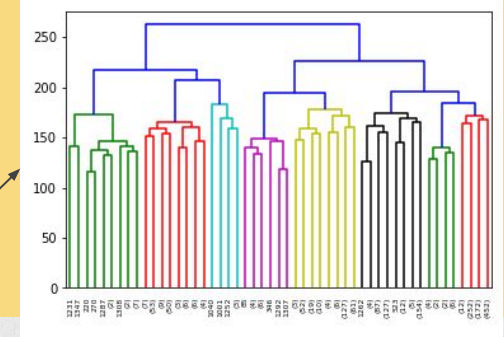Can we decode high level visual features from the fMRI data?

Image features

Ricardo - Kunvar - Mohamed

Approach

- Distribution of tasks/analyses

943 components explain 90% of variance

Data exploration & visualization

Hierarchical Clustering
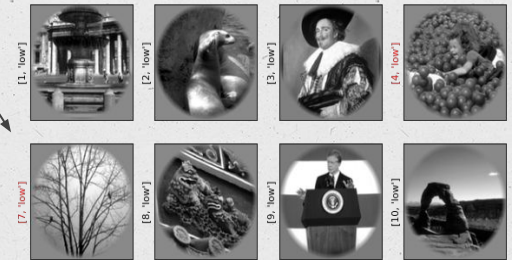
SVM Classification

Conclusions

- Images that we regard as similar do not necessarily produce a similar response across the brain.
- The semantic labelling of the images is not useful.
- Asking the correct question is the most complicated part.
- What more we can do:
    - Build dictionaries of neuronal activations corresponding to different stimuli.
    - Investigate region specific effects.

Ricardo - Kunvar - Mohamed
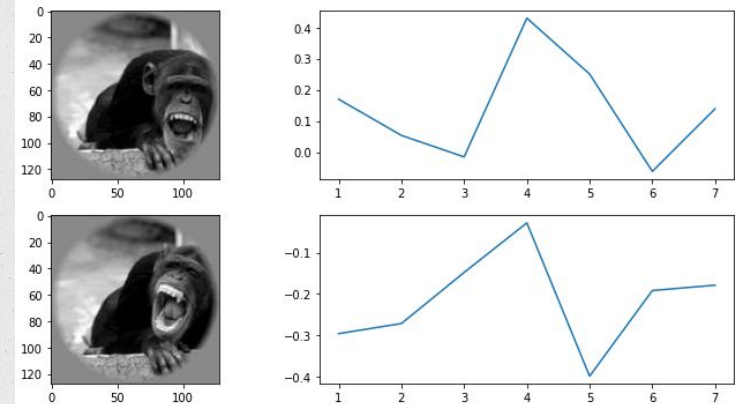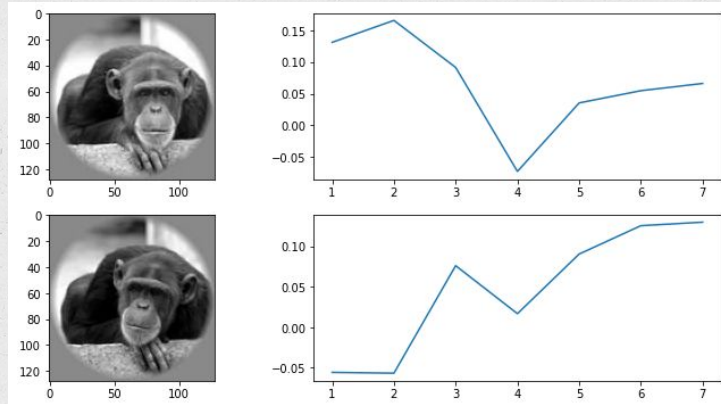
Acknowledgements

Peter Vincent

Laura Lewis