* Citation information for the paper/data.

I am partnering with Jae-Young Son and Joey Heffner on this group project. In our first assignment, we detailed three potential papers that were of interest to us which offered free online access to their data sets. In particular, we are interested in using this project to continue to develop our collective understanding of classification and data dimensionality reduction techniques. After discussion, we have decided that our project will replicate and extend a subset of the analyses of the following paper:

Nummenmaa, L., Hari, R., Hietanen, J. K. & Glerean, E. (2018) Maps of subjective feelings. *Proceedings of the National Academy of Sciences*, *115*(37), 9198-9203. <https://www.pnas.org/content/115/37/9198>

The data can be found on the research group’s online repository here: <https://version.aalto.fi/gitlab/eglerean/sensations>

* List of main statistical methods used

We plan to replicate three of their four main analyses: 1. Regression analyses in Figure 1; 2. Clustering and classification analysis in Figure 2; 3. Representational similarity analyses in Figure 4.

* List of datasets used. Were these datasets collected via complex sample designs?

From the paper, the dataset consists of surveys answered by 1,026 participants (880 females; 146 males) across three experiments. Participants were recruited via university sponsored recruitment services. Survey completion occurred online.

* Summary of data availability and data access plan

All data is hosted in a freely accessible online repository at the link included above. We plan to copy the data to our local hard drives.

* Summary of code availability (may be helpful for replication paper)

All code used to analyze data and generate the figures from the paper are included at the link above by the authors. While this code is in MATLAB, it provides a guide for us as we develop our analyses in R.

* Questions that you wish to answer above and beyond research

The paper conclusions may have depended on their classification method. We propose to extend their original findings by using alternative classification methods (e.g., *k* nearest neighbors and linear regression) and assessing how the results would change.

* Short explanation for why you picked this paper/data

My partners Jae-Young Son and Joey Heffner are jointly working on a project that involves classification of experienced emotions, which is the central topic of this paper. Using this paper offers them an opportunity to become familiar with the analytical methods required in the research project. Moreover, I am interested in building on my existing knowledge of classification and data dimensionality reduction techniques.