# Presentation of research questions

As previously introduced, this paper investigates how well the model proposed by Maldonado et al. (2019) generalises to another area of interest in mouse-tracking research, more specifically the processes of spoken-word recognition in relation to phonologically similarity done by Spivey et al. (2005). This paper will investigate how well the model generalises by replicating the experiment by Spivey et al. (2005) and applying it to this data. We “hypothesise” that for the model to generalise well, it must perform accurate label classifications well above chance and perform close to the topline performance. The topline is performance is defined as in Maldonado et al. (2019), where the topline is a model trained and tested on all data, creating a model overfitting the data and a performance above what is expected. Performance of the models will be evaluated based on their AUC-ROC score.

Additionally, this paper will also investigate how well the model performs compared to traditional mouse-tracking measures ability to classify the data. The measures compared to the model will be area under the trajectory curve, maximal absolute deviation, x-flips, x-reversal, and average deviation.

The results and possibilities of the model will be evaluated and discussed after reporting of the analysis, along with possible improvements of the method.

Notes:

Investigation of optimal PCA features