### Motivation

Humans have a wide range of physiological temperament-- from very robust and uninhibited, to sensitive and inhibited. Being able to determine an individual's temperament can be particularly useful when trying to understand the nature and treatment of disorders. However, before looking at disordered populations, we need to establish reliable measures of temperament in the typical population.

## **Problem Statement**

Research is needed to develop a temperament assessment protocol that could be used in a clinical setting. Because we will eventually be looking at individuals with speech problems, a very relevant protocol might include measures that assess how temperament might be reflected in the speech mechanism. It would be important to compare speech-related measures of temperament with other temperament assessment tools that have been shown to be valid and reliable.

### **Methods**

An experiment was created with high and low stress situations in order to reveal individuals' temperaments. Well known stressors (darkness and confined space) were used for the high stress situation. The low stress situation was an ordinary well lighted room. The valid and reliable temperament assessment tool is the Taylor-Johnson Temperament Analysis. The speech-related measure of temperament is changes in the participants' voice (pitch and vocal fold variability) in the two stress conditions.

16 participants were tested in the two stress conditions which were presented in a counterbalanced order. The Taylor- Johnson Temperament Analysis was completed in the time period between the two conditions.

## Results

This experiment is currently at the stage of gathering data. I expect to have the complete data analyzes and the study written up by the end of March.

# Conclusion

If the hypothesis is confirmed, this may be a good experimental protocol to assess temperament in disordered population, particularly those with speech disorders.