Purpose

Intensity has proven to be problematic in linguistic research in the past. Linguistic stress has been correlated with stress in the past, however this has been disputed by later experimental testing. The impact of intensity on continuous speech production is not something that has a great deal of prior research. Intensity is normally the means by which we make ourselves more audible in noisy environments. Previous observations on speech intensity have primarily been on stressed syllables rather than on continuous speech at a higher intensity.

The goal of this experiment is to identify any interactions of if0 and F1 when speakers are in environments of varying background noise. By replicating environments where a speaker will alter their speech in order to compensate for noisy environments we will gather data that may demonstrate the impact that higher intensity may have on speech overall.

Design

Stimulus sentences were designed to elicit a full range of vowels in minimally contrastive environments. The words chosen begin with voiceless glottal fricatives and end with voiceless alveolar stops where possible. The order of items on the reading list was randomized for each background noise environment. The environmental noise was simulated with headphones (more detail?) and played throughout the reading task. The goal of the simulated noise was to influence the speaker into producing speech in the same manner as real-world noisy environments.