The purpose of my project is to test whether an increase in psychological stress is associated with a change in vocal pitch. There is an underlying belief that when an individual is placed under stress, their average pitch level will rise (Fuller, 1992). If this difference can be demonstrated, a further significant connection may be drawn to stuttering. I want to explore the theory that stuttering is related to vocal tension. It is suggested that one of the factors as to why some people outgrow childhood stuttering, while others do not, is because people who do not outgrow their stuttering having a more sensitive temperament and more anxiety (Guitar, 2013; Guitar, 2003; Iverach, 2011). Consequently, people who stutter may have a more sensitive temperament and laryngeal system that would be especially responsive to stress. Thus, those who stutter and have a sensitive temperament may show greater increase in laryngeal tension (which could be signaled by a rise in pitch), and in turn be possibly correlated with more severe and chronic stuttering.

I am currently examining pitch under stress in people who stutter and people who do not stutter. If it is seen that inducement of stress causes an increase in vocal pitch in non-stutterers and an increase in people who stutter, then I can begin to establish a correlation between pitch and physiological stress therefore also establishing pitch raise as a indicator of psychological stress. Pitch is affected by laryngeal tightening so therefore pitch can be used as a further indicator to illustrate tightness of the larynx. If I can show that individuals who stutter have an increase in pitch (due to laryngeal tightness) and are more stressed (more sensitive temperament than the control group), then I can show that stuttering appears to correlate with both increased laryngeal tightening and also a more sensitive temperament.

Resources

