CHAPTER 1

Relative Theories of Place Perception

1.1 Introduction

The purpose of Experiment 1 is to investigate the perceptual, predictive power of relative formant deflection patterns compared to locus equation variables. The study consists of a partial re-creation of the pseudo-stop, synthetic speech experiment conducted by Lindblom and Sussman (2010) using an airway modulation model of the vocal tract area function (Story, 2005). The goal of the experiment is to 1) test the direct predictive nature of locus equation variables and relative formant deflection patterns; 2) demonstrate how relative formant deflection patterns differ from a locus equation-based theory of stop consonant perception.[1].

1.2 Math Example

This is a real short example of using the equation environment.

$$y = mx + b \tag{1.1}$$

There is an awful lot that the equation environment and math mode can do for you.

1.3 Experiment 1: Relative Formant Deflection Patterns vs. Locus Equations

1.3.1 Methods

Here are my methods.

[1]Look at me! I'm a footnote!

1.3.2 Results

Here are my results.

1.4 Summary and Discussion

Here is my summary and discussion.

1.5 Conclusion

Here is my conclusion for this chapter.

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Error in file(file, "rt"):  cannot open the connection
Error in revalue(Exp1Data$Hypothesis, c(LE = "Locus Equation", RFDP =
"Relative Formant Deflection Pattern")):  object 'Exp1Data' not found
Error in ggplot(Exp1Data, aes(x = Hypothesis, y =
Percent_Participant_Agreement, :  object 'Exp1Data' not found
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Error in library(doBy):  there is no package called 'doBy'
Error in summaryBy(Percent_Participant_Agreement ~ Hypothesis +
Vowel_Context, :  could not find function "summaryBy"
Error in xtable(tab, caption = "Hypothesis Evaluation Results"):
object 'tab' not found
Error in print(tab2):  object 'tab2' not found
```

REFERENCES

Story, B. H. & Bunton, K. (2010). Relation of Vocal Tract Shape, Formant Transitions, and Stop Consonant Identification. *Journal of Speech, Language, and Hearing Research*, *53*, 1514–1528.