

How abstract is your variable? Allophonic systems as an intraspeaker variable

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Background

Traditional **PHL** /æ/ allophonic system (1) is being replaced by suprasegmental **NAS** /æ/ system (2) across Philadelphia

(Labov, Fisher, Gylfadottir, Henderson and Sneller, 2016)

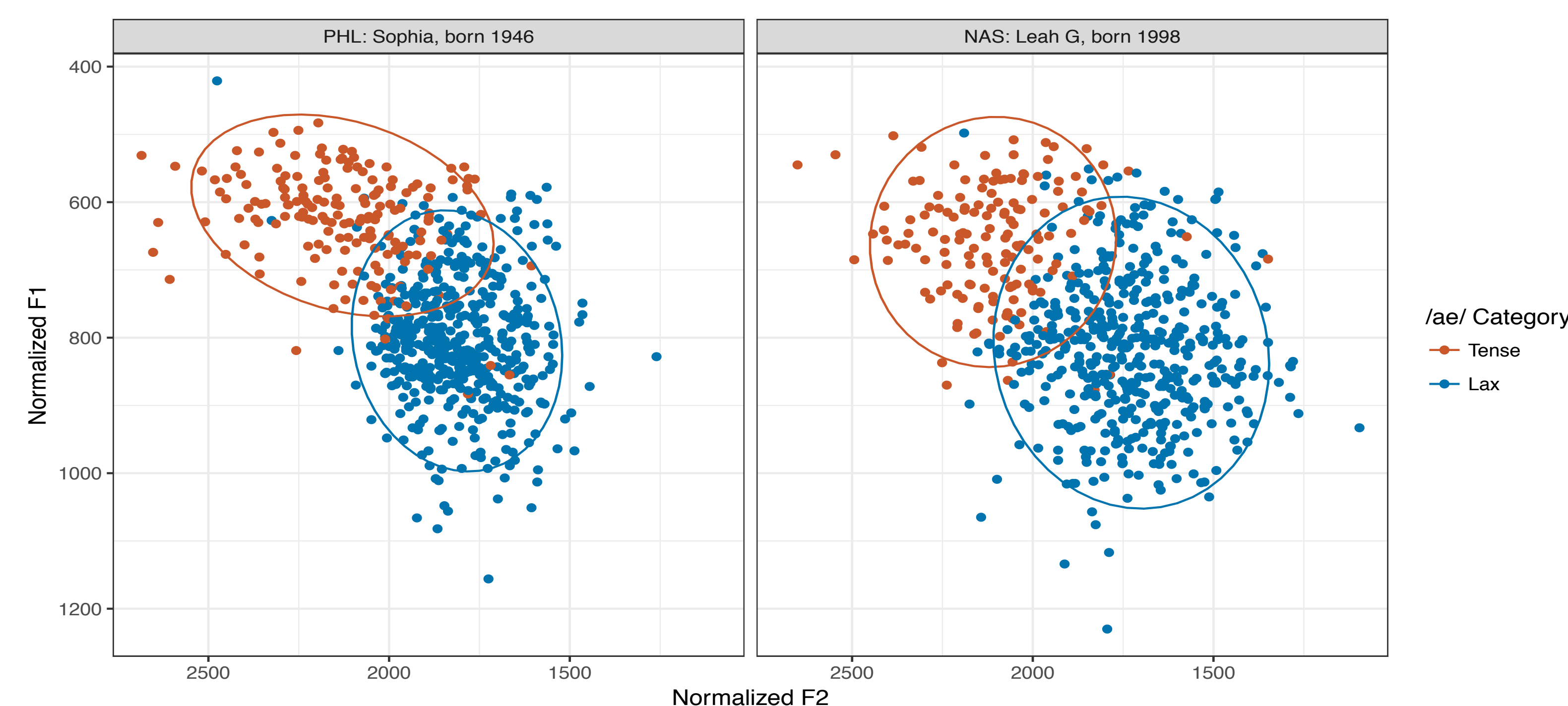
1. **PHL**: /æ/ → tense / — [+ant] ∪ ([+nasal] ∩ [-voice +fric])] σ_{stem}
2. **NAS**: /æ/ → tense / — [+nasal]

Raises two main questions:

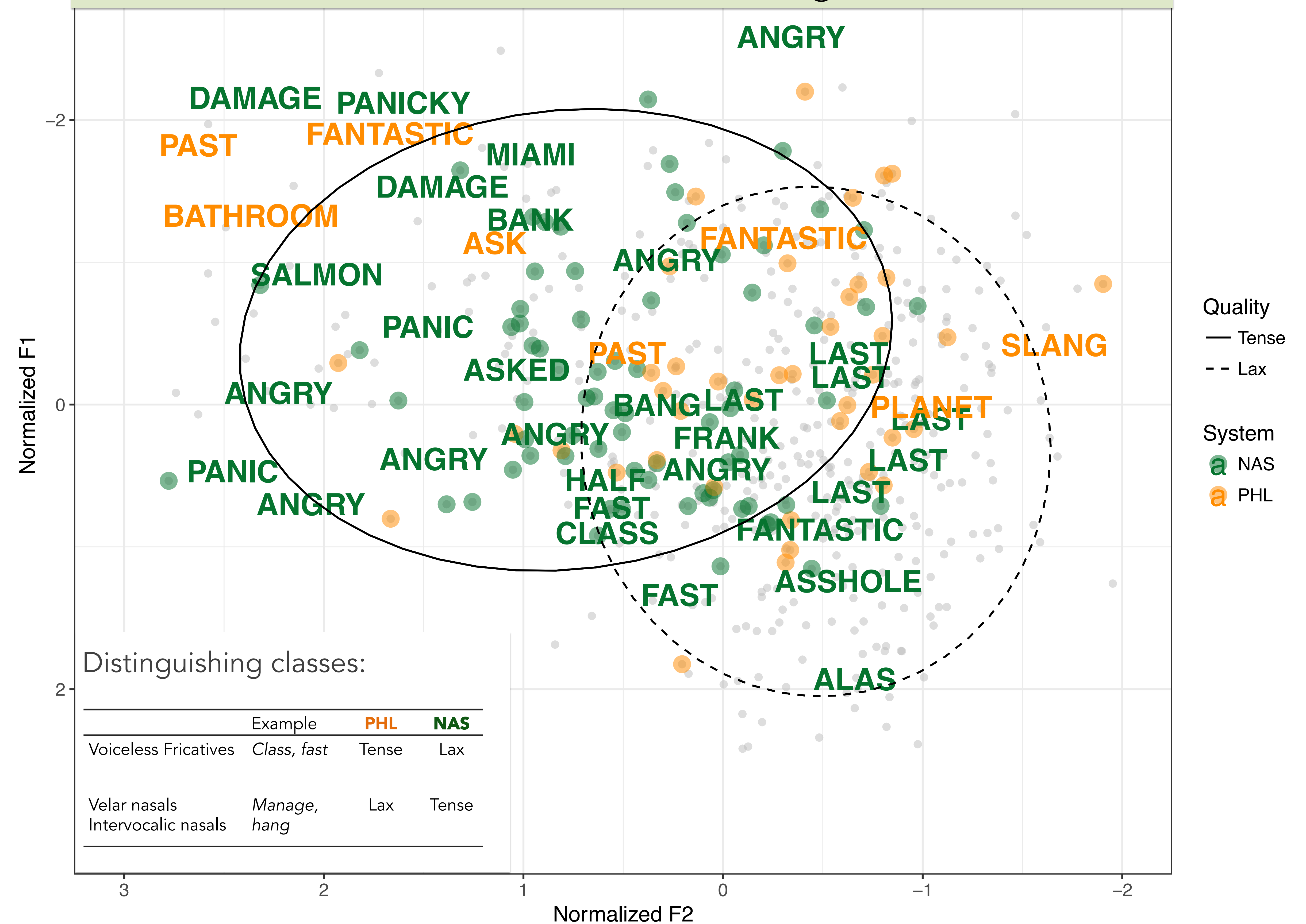
- **Sociolinguistics**: can allophonic system be a linguistic variable?
- **Phonology**: does **PHL** act as a single system or a set of distinct rules plus lexical exceptions?

The data

- Dyad conversations with 46 Philadelphians who acquired language during this change
- Glm classifier used to classify tokens as **tense** or **lax**
- Then used to classify tokens as **PHL** or **NAS**



Variable **PHL** and **NAS** in “Orange Juice”, 1989



Conclusion

- **Sociolinguistics**: allophonic system **can** be a sociolinguistic variable (found in 10 of the 46 speakers)
- **Phonology**: selection of PHL as a whole, demonstrated by variability within phonological context and lexical item

Bonus: style shifting

