

# Yiddish Treatment of Affricates and Segmental Analysis



Jack Goldberg

jack.Goldberg@wustl.edu

## BACKGROUND/DATA COLLECTION

### Central Questions

- How are affricates treated in Yiddish?
- How does Yiddish phonology motivate various cross-linguistic models of the affricate?

### Yiddish Background

- Falkovitch (1966), Weinreich (1968), Kleine (2003), Jacobs (2005) all have different views
- $\text{tʃ}$  was often considered the only affricate due to it being the only one with a graph: צ
- 2 million speakers (Eberhard et al. 2021)
- Two primary dialects (Eastern and Western)
- Written essentially with Hebrew orthography
- Descendent of Middle High German

### Data Collection

- Collected words from Swadesh list, Joys of Yiddish, and Yiddish a Linguistic Introduction
- ~120 words per speaker
- Interviewed three native speakers
  - M87, M29, F34
- All spoke a Western dialect
- Elicited words through English translation prompts

### References and Acknowledgements

Thank you to Nick Danis for helping at every step, as well as the entire Wash U Linguistics staff. Jacobs, Neil. (2005). Yiddish a Linguistic Introduction Weinreich (1968). Modern English-Yiddish, Yiddish-English dictionary Kleine, Ane (2003). "Standard Yiddish". Journal of the International Phonetic Association. Falkovitch, E. (1966). In V. V. Vinogradov et al. (eds.), Iazyki narodov SSSR. Vol. I: Indoevropaïskie iazyki Clements, G. G. (1999). "Affricates as Noncontoured Stops". *Proceedings of LP '98: Item Order in Language and Speech*. Sagey, E (1986), "The Representation of Features and Relations in Autosegmental Phonology", MIT Ph.D Dissertation. Lombardi, Linda (1990), "The Nonlinear Organization of the Affricate", *Natural Language and Linguistic Theory*

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## PHONOLOGY

### Near Minimal Pairs

- $\text{tʃ}$  has near minimal pairs with d, t, and  $\text{tʃ}$ 
  - / $\text{tʃimədan} - \text{dın}$ / 'suitcase – thin'
  - / $\text{tʃafʃki} - \text{tatʃ}$ / 'toy – father'
  - / $\text{mentʃ} - \text{entʃ}$ / 'person – we'
- $\text{tʃ}$  has near minimal pairs with d, t,  $\text{tʃ}$ 
  - / $\text{blmtʃ} - \text{hmt}$ / 'blintz – dog'
  - / $\text{dın} - \text{tʃn}$ / 'thin – tongue'

### Representation of Affricates

#### Complex Ordered Segment

- Left (- continuant), Right (+continuant) Sagey (1986)

#### Complex Un-ordered Segment

- Unordered (+ and - continuant) Lombardi (1999)

#### Simple Segment

- Simple segment with conflicting features Clements (1990)

#### True Cluster

### Hushing Assimilation

- Process in Yiddish as well as other Germanic languages
- $s \rightarrow \text{ʃ} / \_ \text{tʃ}$
- Motivates all three possible affricate representations

## ACOUSTICS

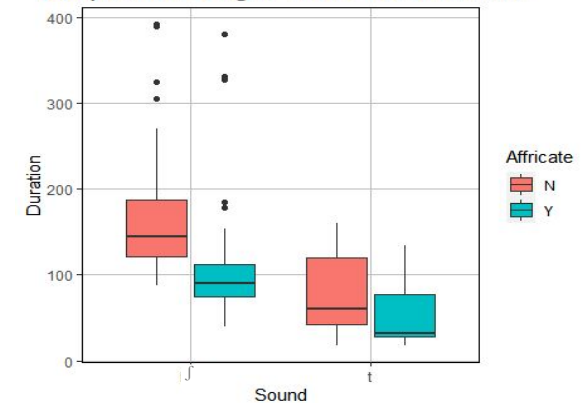
### Methods

- Annotated interviews in Praat
- Measured durations of relevant sounds (t, d,  $\text{ʃ}$ ,  $\text{tʃ}$ ,  $\text{tʃ}$ ,  $\text{dʒ}$ ) and recorded into Excel
- Statistical analysis in R (t test)

### Findings

- Bare sounds were statistically significantly longer than their affricate counterparts

Boxplot of Length alone vs. affricate



### Conclusion

- $\text{tʃ}$ ,  $\text{tʃ}$ ,  $\text{dʒ}$  are all affricates, not sequences
- $\text{tʃ}$  and  $\text{tʃ}$  are phonemes
- $\text{dʒ}$  is an allophone of d
- $\text{tʃ}$  and  $\text{tʃ}$  are acoustically unique and in overlapping distribution with their bare counterparts