

Do Talker Differences and Dialect Affect Wordlikeness Judgments?

Kelly Jorgensen

April 5, 2014



We are interested in language processing

- Virtually all research on language processing in adults has been done:
 - on college students
 - who speak Mainstream American English (MAE)
- This population doesn't reflect everyone in the community
- Dialect and education level influence language processing
- This research includes participants of different dialects and education levels

Phonotactic Probability

- How frequently sound sequences occur in words in English
- **Common** sound sequences:
High phonotactic probability:
("tw" in *twins, twelve, twenty*)
- **Rare** sound sequences:
Low phonotactic probability:
("pw" only in lone words like *pueblo*)

Which is more likely
to be a word in English?

- Tweekket Pwahgub

Which is more likely to be a word in English?

- Tweekket Pwahgub
- Doognitade Tugnuhdeet

Which is more likely
to be a word in English?

- **Twekket** Pwahgub
- Doognitade **Tugnuhdeet**

Which is more likely to be a word in English?

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Words with **high** phonotactic probability are rated as
more wordlike

(Frisch, Large & Pisoni, 2000)

Language Processing and Dialects of English

- There are many dialects of American English
 - MAE
 - AAE
- The single study including listeners who speak African American English (AAE) found this group tends to give lower wordlikeness ratings
(Andrzejewski, 2012)

Purpose of this study

- To see if wordlikeness ratings are affected by:
 - Phonotactic probability
 - Differences between talkers
 - Dialect of the talker
 - Dialect of the listener

Purpose of this study

- Stimuli: Talkers of different dialects (MAE and AAE)
 - 1 MAE talker , 1 AAE talker, 1 talker who is a dialect-shifter between MAE and AAE
- Participants: 2 listener groups (MAE and AAE)
 - From UW-Madison and the community

Participant Groups

MAE Participants

- 31 young adults
(15 females, 16 males)
- Tested on campus
- All currently enrolled at UW or have a bachelor's degree

AAE Participants

- 14 young adults
(8 females, 6 males)
- Tested at a community center
- None currently enrolled at a four year college or have a bachelor's degree

Participant Tasks

- Wordlikeness rating task
- Receptive Vocabulary Test (PPVT-4)
- Background Questionnaire
- Dialect Questionnaire

Wordlikeness Stimuli

- 22 nonword pairs differing in phonotactic probability
 - High: twekket Low: pwahgub

Wordlikeness Stimuli

- 22 nonword pairs differing in phonotactic probability
 - High: twekket Low: pwahgub
- 4 groups of stimuli by 3 different talkers
 - MAE talkers:   HN (MAE only), TC (dialect-shifter)  
 - AAE talkers:   AJ (AAE only), TC (dialect-shifter)  

**This word
could never
be a word
in English**

**This word
could easily
be a word
in English**



**This word
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be a word
in English**

**This word
could easily
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twekket

**This word
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**This word
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in English**



pwahgub

Analysis

**This word
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**This word
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Analysis

**This word
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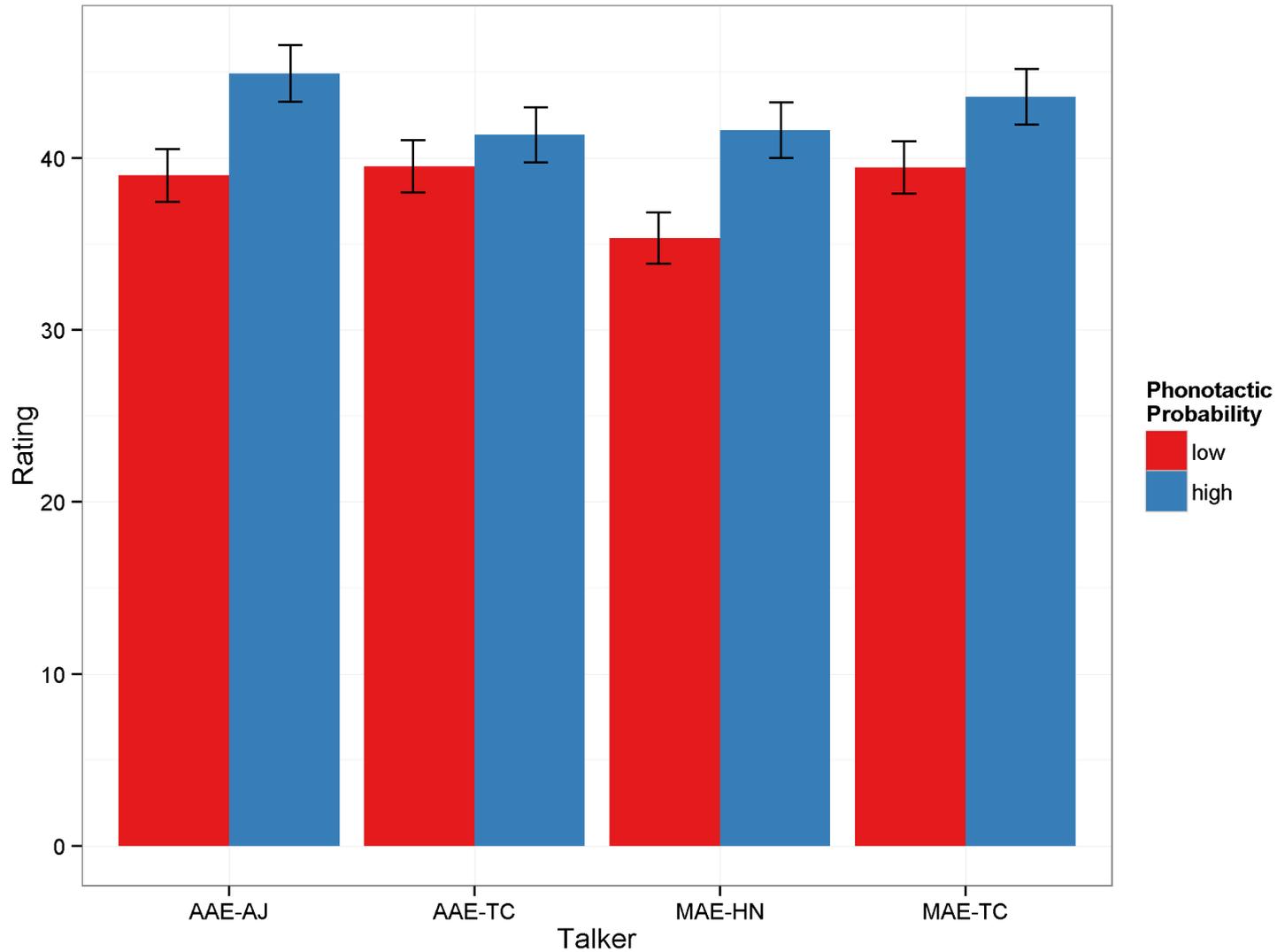
Analysis

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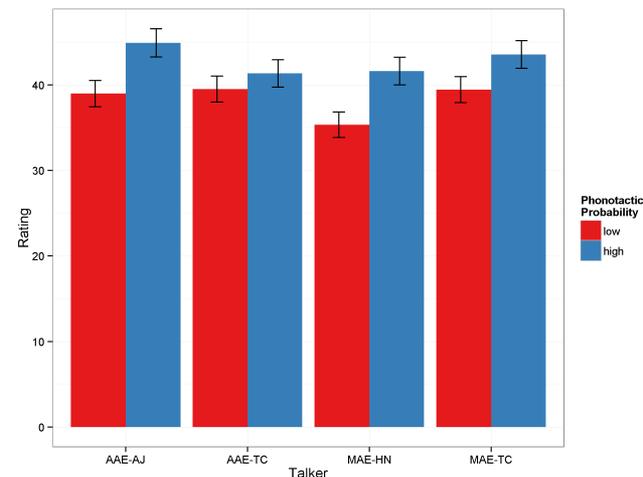


MAE Listeners



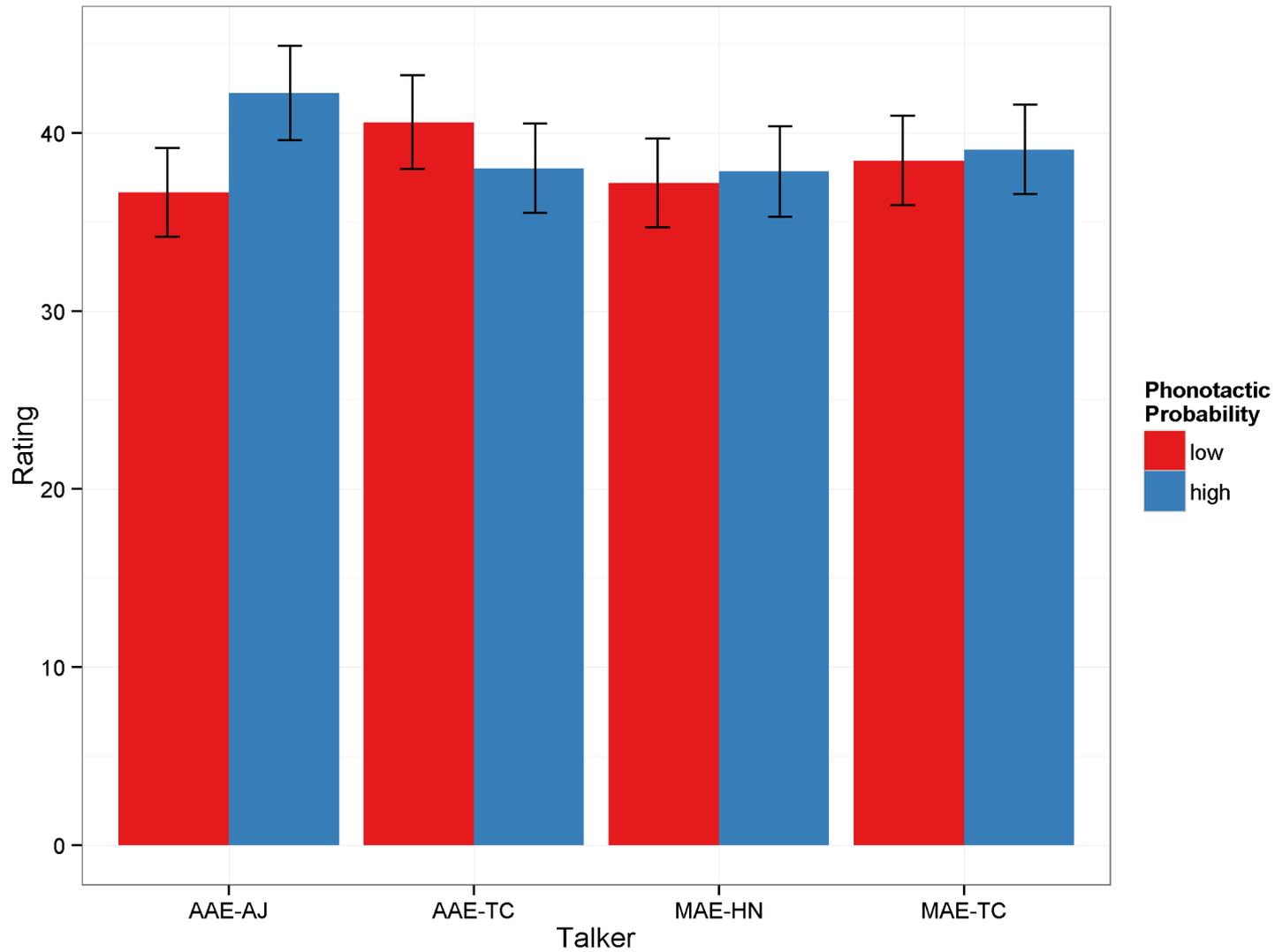
Discussion

MAE Listeners



- Effect of phonotactic probability on wordlikeness ratings **except** for the AAE speaker who used more characteristics of the dialect
- Absolute wordlikeness ratings varied by talker

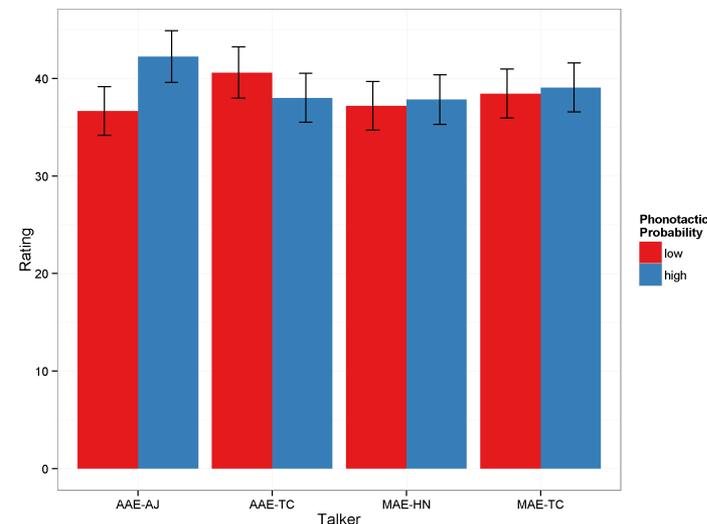
AAE Listeners



Discussion

AAE Listeners

- No effect of phonotactic probability on wordlikeness ratings
 - This was true for both MAE and AAE talkers



Discussion

Why is there no effect of phonotactic probability on wordlikeness ratings for AAE listeners?

- Effect of phonotactic probability seen in production even in young children
- Wordlikeness rating is a highly meta-linguistic task

What does this all mean?

- Do Talker Differences and Dialect Affect Wordlikeness Judgments?
 - Absolute value of the wordlikeness rating is affected by talker
 - Dialect had an effect for the MAE group but not the AAE group
 - Shows the importance of a diverse sample

Acknowledgments

- Thank you to:

- Jan Edwards: Thesis Advisor
- Tatiana Campbell: Co-examiner



- learning to



Acknowledgments

- This research was supported by:
 - NIDCD Grant R01-02932 to Jan Edwards, Mary Beckman, and Benjamin Munson
 - Hildale Undergraduate Research Fellowship

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