Do Talker Differences and Dialect Affect Wordlikeness Judgments?

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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?

- Twekket
- Pwahgub
Which is more likely to be a word in English?

- Twekket  Pwahgub
- Doognitade  Tugnuhdeet
Which is more likely to be a word in English?

- **Twekket** Pwahgub

- **Doognitade** Tugnuhdeet
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Words with high phonotactic probability are rated as more wordlike
(Frisch, Large & Pisoni, 2000)
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

<table>
<thead>
<tr>
<th>MAE Participants</th>
<th>AAE Participants</th>
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</thead>
<tbody>
<tr>
<td>• 31 young adults (15 females, 16 males)</td>
<td>• 14 young adults (8 females, 6 males)</td>
</tr>
<tr>
<td>• Tested on campus</td>
<td>• Tested at a community center</td>
</tr>
<tr>
<td></td>
<td>• None currently enrolled at a four year college or have a bachelor’s degree</td>
</tr>
<tr>
<td>• All currently enrolled at UW or have a bachelor’s degree</td>
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</tbody>
</table>
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 could never be a word in English

This word could easily be a word in English

twekket
This word could never be a word in English

This word could easily be a word in English

pwahgub
Analysis

This word could never be a word in English

This word could easily be a word in English
Analysis

This word could never be a word in English

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Analysis

This word could never be a word in English

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Analysis

This word could never be a word in English

This word could easily be a word in English
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
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
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References


