1. Introduction

- Homophone often used to describe lexical items thought to maintain the same acoustic realization, but different semantic mapping (Clark 1973, Lukatela & Turvey 1994)
- Research supports systematic acoustic differences across homophones (Gahl 2008, Drager 2011, Caramazza et al. 2001)

Research questions:
- Is duration and/or spectral movement used to distinguish so-called ‘homophones’?
- Following Drager (2011), will we also observe acoustic variation in productions of like in western Canadian English?

2. Method

- Recorded ten native speakers of western Canadian English
- 7 female 3 male, 18-34 years of age
- Conversations roughly 25 minutes in length
- Speakers recorded in sound attenuated booth (conversed with offsite interlocutors using cordless telephone), providing high quality, spontaneous speech (Warner 2012)
- 884 productions of like included in analysis
- Coded for 11 distinct semantic-syntactic categories, see Table 1
- 37-181 instances of like per speaker
- 24 tokens excluded for concurrent laughing, yawning, etc.
- Phonemic and lexical boundaries segmented in Praat (Boersma & Weenink 2012)

Acoustic measures:
- Word Duration, Segment Duration (/l/ + /al/ + /kcl/ + /k/)
- /kcl/ = obstructive closure, /k/ = obstructive release
- F1 & F2 at 25% & 75% of vocalic segment’s duration converted into Bark and calculated as Euclidean distance
- Speech rate calculated as syllables per second

Analysis:
- Linear mixed effects regression (Bates et al. 2014)
- Age, Gender, and Speaking Rate used as predictors

3. Results

- Lexical functions (i.e., N, V, Adj, Adv) relatively less frequent in corpus; supports grammaticization (Meehan 1991)
- DP most frequent but remarkably long in duration. Associated with disfluencies & turn-taking; subject to phrase-final lengthening?
- Q significantly less diphthongization than all but Adv: possibly due to phrasal compounding (N + be + like) & temporal constraints associated with vowels & reduced speech (Lindblom 1983)
- Segment duration & spectral cues vary by function: sub-phonemic cues mapped to lexeme & can differentiate homophonous forms within the mental lexicon
- Currently unknown to what extent listeners utilize such cues

Table 1. Different semantic/syntactic functions of LIKE based on those outlined in D’Arcy 2006, 2007 and Meehan 1991, with raw frequency counts from within this corpus (all speakers summed)

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>CODE</th>
<th>EXAMPLE</th>
<th>NOTES</th>
<th>RAW FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verb</td>
<td>V</td>
<td>I like cookies; I would like to go</td>
<td>Any verb</td>
<td>15</td>
</tr>
<tr>
<td>Noun</td>
<td>N</td>
<td>to compare like with like</td>
<td>Any nominal use</td>
<td>0</td>
</tr>
<tr>
<td>Adjective</td>
<td>Adj</td>
<td>the elf-like maiden</td>
<td>Attributing a quality</td>
<td>0</td>
</tr>
<tr>
<td>Adverb</td>
<td>Adv</td>
<td>It tastes like crap</td>
<td>Modifying a verb</td>
<td>2</td>
</tr>
<tr>
<td>Q</td>
<td>Q</td>
<td>And then he was like “...”</td>
<td>Marks a quotation</td>
<td>139</td>
</tr>
<tr>
<td>Discourse Marker</td>
<td>DM</td>
<td>Like, they had scraped her</td>
<td>Place marker, phrase initial</td>
<td>66</td>
</tr>
<tr>
<td>Discourse Particle</td>
<td>DP</td>
<td>They had like scraped her</td>
<td>Place marker, phrase internal</td>
<td>299</td>
</tr>
<tr>
<td>Approximator Adverb</td>
<td>AA</td>
<td>took all day to go like 30 miles</td>
<td>Indicates approximate length</td>
<td>99</td>
</tr>
<tr>
<td>Exemplifier</td>
<td>E</td>
<td>Do you have like a mint or something?</td>
<td>Indicates an example or prototype</td>
<td>177</td>
</tr>
<tr>
<td>Conjunction</td>
<td>Conj</td>
<td>He looks like he’s seen better days</td>
<td>Connects two clauses</td>
<td>25</td>
</tr>
<tr>
<td>Comparative</td>
<td>Comp</td>
<td>He looks like death</td>
<td>Compares two items</td>
<td>62</td>
</tr>
</tbody>
</table>

References:

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