How character types mediate the effect of gender on pitch and /s/ variation

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Looking beyond gender and sexuality to understand the social meanings of pitch and /s/ variation

**Background**

Effect of sex on variation is indirect and mediated by effects, stances, persona styles, character types

**Theoretical Background**

Variation does not exist to demarcate social group membership. Speakers use semantic potential of variables to convey attitudes about the social world and position themselves

Meaningful, interpretable combinations of features correspond to styles which “connect language to the types and personne which make up the social world” (Eckert, 2014: 267)

Pitch thought to be intrinsically, universally tied to sex

Association driven by physiology, but physiology does not dictate pitch

- Average f0 highly variable across contexts, communities
- Progressive girls, boys show greater f0 mean, range differences than can be accounted for by physiology

Wide pitch range associated with women, femininity; high pitch, wide pitch range associated with gay men. Little evidence to support either.

**High and low frequencies tied to emotions and affects**

- Shortened vocal tract
- Higher resonating frequencies
- Higher f0

Low pitch as dominant
- Greater perceived body size
- Emotional state of calm, resolute, assertive

High pitch
- Wide pitch range
- High intensity emotions

- Hot anger
- Elation
- Panic
- Fear
- Despair

High pitch
- Sadness
- Happiness
- Boredom
- Pride

**Findings**

Pitch and /s/ variation are not fundamentally and directly linked to gender or sex, but have a complex range of indexical links which can be called upon to perform a variety of affects and character types.

This study provides empirical support for the claim that the effects of sex and gender on variation are mediated and indirect, and demonstrates that many of the indexical links associated with pitch and /s/ are not necessarily rooted in gender, sex or sexuality.

**Methods**

12 actors recruited to perform 16 character types

- *Female actors*
- *Male actors*

<table>
<thead>
<tr>
<th>Character types</th>
<th>Age Distribution</th>
<th>Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRO, LIBRARIAN</td>
<td>20 South Asian</td>
<td>White</td>
</tr>
<tr>
<td>HISPANIC GIRL</td>
<td>25 White</td>
<td>Black</td>
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<tr>
<td>HISPANIC MAN</td>
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<td>Black</td>
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<tr>
<td>SASSY GIRL</td>
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<td>SASSY MAN</td>
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<td>CORPORATE MAN</td>
<td>40 Asian American</td>
<td>Black</td>
</tr>
<tr>
<td>CORPORATE WOMAN</td>
<td>50 Black</td>
<td>White</td>
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</table>

**Discussion**

**Cannot account for findings with gender or sex alone**

Both male and female character types occupied the extremes of all three features, and many characters were performed with phonetic features that may seem atypical in light of their sex.

Absence of clear distinction between male and female character types is not due to gender-nonconforming characters or bad performances.

Character types are enacted and recognized, in part, by their emotions, attitudes, affectsive stances. The affective potential of pitch variation underlies many of the correlations between character type and pitch. The characters are conventionally associated with emotional states or affects, and the scripts used to inspire the actor’s performances were imbued with emotional content.

**Characters with low pitch**

- COUSIN, related confidence, effortless dominance, seducing young men

**Characters with high pitch**

- HIPSTER, nonchalant, understated, uninflected
- HIPPY, rebellious, intense emotional stances
- PARTY GIRL, elated, boisterous, dancing at an “aqua” party
- SASSY LATINA, headstrong, engaging with a brand

**Conclusion**

Assuming that the indexical links that emerge from pitch and /s/ are fundamentally rooted in femininity and masculinity of female-ness and male-ness fails to account for the patterns in this study.

The character types, just as the identities of any speaker, are characterized by a complex configuration of qualities. The results indicate that affective qualities, as well as character type, had a more powerful and direct effect on the acoustics of pitch and /s/ than gender.

Gender ultimately affects linguistic choices, because ideologies about gender constrain the range of character types and personas that women and men enact, as well as the types of emotions they express and stances they take toward aspects of the social world.

**References**


AICc values were analyzed for pitch mean, range, and C0G of /s/ across characters:

<table>
<thead>
<tr>
<th>Character type</th>
<th>p-value</th>
<th>AICc</th>
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<tbody>
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<tr>
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<tr>
<td>HISPANIC MAN</td>
<td>&lt;0.0001</td>
<td>6324</td>
</tr>
</tbody>
</table>

**COG of /s/ (Hz)**

COG of /s/ was analyzed for pitch mean, normalized pitch range, C0G of /s/.

**Notes**

“Where are we going?”

“See you later.”

“What did you say?”

“Where are you going?”

“Okay. That’s it. I’m leaving you now.”

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