Prosody Markers as Phonetic Correlates for Persuasive Language in ISIS Speech

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Prosody markers as phonetic correlates for persuasive language in ISIS Speech

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Introduction

The goal of this study is to determine if prosodic variables might be utilized to understand the rhetoric of ISIS's message.

- RQ1: What makes ISIS so persuasive to those vulnerable to recruitment?
- RQ2: Might language, more specifically phonetic features found in prosodic markers such as pitch, intensity, and duration, play a role in this rhetorical appeal?
- RQ3: What can prosodic variables tell us about the persuasive nature of ISIS speech?

Definitions

- Prosody is "a general notion in the study of spoken language that covers a range of supersegmental phenomena including intonation or pitch, rhythm, duration or tempo, voice quality, and pausing." (Berez, 2011)
- Prosody can potentially provide information about a speaker's attitude (related to emotion) or membership in a speech community (e.g. signals of ethnic identity and gender, speech style).
- Further, prosody tells us the emotional aspects of speech (sometimes related to linguistic meaning within discourse) and the state of health of the speaker. (Chafe, 1997; Mannell, 2007).
- Oratory is "a linguistically self-conscious form of speaking, rich in devices that frame and re-frame its use and contexts of interpretation. Many formal devices—including rhythm, pitch, pauses, even musical conventions—play a key role in the effectiveness of oratory." (Kuipers, 1999)

Background

The nature of ISIS:
- "If you want to know the program of the [Islamic] State, its politics, and its legal opinions, one ought to consult its leaders, its statements, its public addresses, its own sources." (Abu Muhammad Al-Adnani, official spokesman of the Islamic State, May 21, 2015)
- "It is a religious group with carefully considered beliefs, among them that it is a key agent of the coming apocalypse." (Graeme Wood, Atlantic Monthly, 2015)
- "Religious ideological roots in Islamism and Salafism within a form of Sunni Islam (Chafe, 1997, 2007)."

Why does ISIS claim it is a state? (Kumar, 2015)
- "Claim to be inclusive (it includes all regardless of race, nationality or tribe)
- Religious leadership is key: Claim to care of followers, tasks council, is humble, kind to followers, rewards performance (in theory)
- Claim to effectively provides domestic services
- Militarily successful and Capable (at least until recent)

Methodology

Qualitative Variables: are used for grouping data for comparison
(e.g. comparing authors, comparing individual speeches, comparing beginning, middle and end)

- Author: Al-Adnani, Sheikh Adnan Ibrahim
- Ideal due to their comparative natures
- Speech: 4 speeches separately analyzed
- Segments Analyzed: Beginning, Middle, End
- From each, 10 minutes of speech was analyzed within different domains of the discourse
- Lexical segmentation

Quantitative Variables: Means and standard deviations of these variables will be compared for each of the groups defined by qualitative variables:
- Duration (Syllable Length, ms)
- Pitch (Fundamental Frequency F0)
- Intensity (Amplitude/Loudness, dB)
- Speech rate (Words per Minute)

Analysis

- Acoustic analysis using Praat, a linguistics software tool (Boersma & Weenink, 2005)
- Segmentation of each lexical category
- Once each lexical item was separated into intervals on one tier, a Praat script analyzing duration, pitch, and intensity values
- For every pitch and intensity value, a Praat script measured and documented the minimum and maximum value within each interval, and generated a calculated mean and standard deviation for every pitch and intensity value in the data
- These results were then utilized in running further statistical analyses of the data

Results

- al-Adnani speaks louder than a vacuum cleaner (70dB) while Ibrahim speaks just a bit louder than conversational
- Normal conversation intensity (loudness) is reported by the American Speech-Language-Hearing Association as approximately 60 dB ("Noise", 2016)
- al-Adnani speaks much slower than Adnan Ibrahim
- A proportionate difference of duration means (ms) between speakers yields that al-Adnani speaks 1.786037391 (msx1000) slower than Adnan Ibrahim—almost twice as slow.

Conclusions

This study has served two functions:
- Distinctions in the data indicate differences between phonetic factors that may have influence upon the recruitment of moderate and radical Muslims.
- Variables that might have persuasive value to those vulnerable to radicalisation seem to depend on speaking slowly and significantly louder.

Further research:
- This study constitutes a starting point for analyzing how prosodic features of discourse may influence people vulnerable to ISIS recruitment, and its results are limited due to the small corpus for comparison. Widening the corpus and incorporating different actors would be one plausible avenue of further substantiating the obtained results of this study.
- Incorporating different types of linguistic analyses, such as the addition of semantic and syntactic feature analyses—and thematic coding thereof, may further shed light on the rhetorical strategies utilized in this discourse genre to recruit vulnerable individuals as well.

References