Perceptual analysis of charismatic speech characteristics

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Abstract

Charisma can be described in terms of semantic pragmatic features related to trustworthiness, motivation, and persuasion. In this paper, we are concerned with the multidimensionality of charismatic speech because it depends on the production of the speaker and the perception of the listener. Our aim, in this study, is to compare the voice quality profiles of two YouTube communicators whose manners of speaking were judged as the most charismatic and the least charismatic in a perceptual test. Minimized Mandibular Range, Minimized Tongue Body Range, Nasality and Interrupted Speech were judged as less charismatic than Extensive Mandibular Range and Fast Speech.

Keywords: multimodality, charisma, charismatic speech, voice quality

Introduction

The term charisma was used in Ancient Greece to indicate a gift, and an extraordinary leadership quality. From the sociological point of view, charisma has been defined throughout the centuries as an extraordinary quality of a person (Weber 1920) and it can be related to other semantic pragmatic features such as trustworthiness, motivation, and persuasion.

As a result, the term was also attributed as a type of leadership that presents a relation to the leader and to the followers since a charismatic leader is a product of his/her followers (Weber 1920; Boss 1976). According to Signorello (2021), charisma is not related to leadership and convincing at most, but also to the way the listener feels when receiving the message. For that reason, the charismatic speech is a multidimensional construction that depends on the production of the speaker and the perception of the listener.

A charismatic leader sounds convincing and motivating because he/she is able to make the public feel the message that is expressed. Kouzes and Posner (2001) and Militaru (2013) argue that charisma is directly related to the social relationships involving leadership and followers. Therefore, charisma is not only associated with speakers' attributes, but it is also an attribute associated to the listeners and how they perceive them.

The way the listeners perceive charismatic speakers can be analyzed from the perspective of voice quality characteristics. Voice quality is described as a product of articulatory and phonatory settings that "colors" the speaker's voice

by Laver (1980). Niebuhr et al. (2018) points out that voice quality is a charisma-relevant feature to investigate how charismatic speech is produced by the speaker. Speakers with some specific voice quality settings such as extensive mandibular range, extensive labial range, and fast speech are considered to be confident, charming, engaging, and persuasive (Signorello 2014).

Our aim is to compare the voice quality profiles of two YouTube communicators whose manners of speaking were judged as the most charismatic and the least charismatic in a perceptual test. Our hypothesis is that speaker's voice quality settings contribute to the evaluation of the listener.

Methodology

The methodological procedures comprised the application of a perceptual semantic questionnaire, and the perceptual analysis of voice quality and prosodic settings with the Voice Profile Analysis (VPA).

The perceptual test was conducted with speech samples from ten male investment counselor speakers from São Paulo, Brazil, and it was answered by a group of 53 judges also from São Paulo, Brazil using the SurveyMonkey platform. The judges had to evaluate on a linear scale how charismatic, convincing, trustworthy, and motivating the speaker was.

Two speakers were selected: the best rated and the worst rated speakers judged by the listeners.

The perceptual analysis of voice quality and prosodic settings using VPA was performed by a group of 7 trained judges and the type of assessment was consensual.

Results

For the perceptual semantic test, the results showed that the best rated speaker was considered 68,7% charismatic, 69,3% convincing, 69,7% trustworthy, and 67,1% motivating, while the worst rated speaker was considered 47,4% charismatic, 45,8% convincing, 50,3% trustworthy, and 37,3% motivating.

Figure 1 presents how the best and the worst rated speakers were judged in the perceptual test.

Concerning the vocal profiles, the two speakers shared the following non-neutral voice quality and prosodic settings: extensive labial range, lowered tongue body, raised larynx, tense vocal tract, open jaw, tense larynx, high pitch, extensive pitch range and high loudness. The worst rated speech production was described with the following non-neutral voice quality and prosodic settings: lip spreading, minimized mandibular range, fronted tongue body, minimized lingual body range, nasality, and interrupted speech.

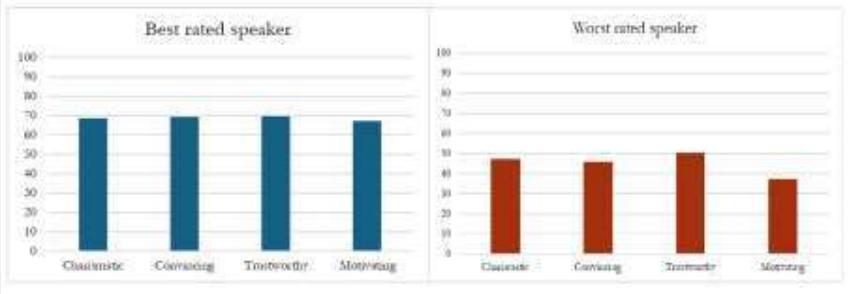

Figure 1. Best and worst rated speakers in the perceptual test

Figure 2 presents the best and the worst rated speakers' voice quality settings.

Best rated speaker's voice quality settings	Worst rated speaker's voice quality settings
	Lip Spreading
Extensive Labial Range	Extensive Labial Range
Open Jaw	Intermitent Open Jaw
Protruded Jaw	
Extensive Mandibular Range	
	Minimised Mandibular Range
	Fronted Tongue Body
Lowered Tongue Body	Lowered Tongue Body
	Minimised Tongue Body Range
	Nasal
Raised Larynx	Raised Larynx
Tense Vocal Tract	Intermitent Tense Vocal Tract
Tense Larynx	Tense Larynx
Intermitent Creaky	Intermitent Creaky
	Interrupted Continuity
Fast Rate	

Figure 2. Voice quality settings – similarities and differences

Discussion and conclusions

The types of voice quality settings characterizing the speakers' voice profiles can be interpreted in terms of speech style, speech task and idiosyncratic features.

In terms of speech style, clear speech is a valued feature in YouTube talk channels and voice quality settings such as extensive labial range, open jaw, lowered tongue body shared by both speakers can contribute for the speaker to sound clear, and convincing.

Other voice quality settings also shared by both speakers, such as tense vocal tract, tense larynx, high pitch, raised larynx can be viewed as related to the kind of speech tasks that require effort from the part of the speaker to communicate effectively.

Otherwise, voice quality settings such as protruded jaw and nasality can be related to idiosyncratic features. Previous studies presented that nasality can be associated with negative perceptual impressions (Zuckerman and Miyake 1993; Lukkarila et al. 2012).

Features such as minimized mandibular range, minimized tongue body range, nasality and interrupted speech may have contributed to judgements of a less charismatic hesitant speech, whereas extensive mandibular range and fast speech to a more charismatic, and fluent speech.

In conclusion, potential features determining rating differences between the two speakers in perceptual semantic questionnaires can be motivated by the kinds of settings that characterize the speakers' vocal profiles.

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