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Charismatic speaking strategies of presidential candidates

The rhetorical content varies greatly, but Hillary Clinton, Bernie Sanders, Donald Trump and Carly Fiorina modulate their voices in the same way when faced with different audiences

AMERICAN INSTITUTE OF PHYSICS

WASHINGTON, D.C., May 25, 2016 -- Researchers at UCLA's Voice Center for Medicine and the Arts have recently examined the speech patterns of Hillary Clinton, Bernie Sanders, Donald Trump and Carly Fiorina in a variety of settings to determine whether the presidential candidates followed the same voice modulation strategies. They researchers found that despite the politicians' varied messages, their vocal delivery remains the same.

"Our hypothesis is that persuasive goals change when you address a different audience, and this change is reflected in voice acoustics," said Rosario Signorello, a postdoctoral researcher in the Department of Head and Neck Surgery at UCLA's David Geffen School of Medicine. Signorello has been investigating the biological components of charismatic speech at UCLA for more than two years, and his previous research has involved examining the frequency characteristics responsible for voters perceiving politicians as benevolent or authoritarian.

He and his colleagues will present their current research on the charismatic speaking strategies of presidential candidate at the 171st meeting of the Acoustical Society of America in Salt Lake City.

The researchers examined the fundamental frequency, also known as pitch, or F0, of Hillary Clinton, Bernie Sanders, Donald Trump, and Carly Fiorina in three different settings - political rallies, meetings with other political figures, and nonpolitical talk show interviews. They found that in large venues filled with voters, all four figures employed a very wide fundamental frequency range, a method Signorello and his colleagues previously demonstrated as key to being perceived as charismatic.

When the four politicians were formally addressing other leaders -- Clinton addressing the United Nations Commission on the Status of Women, Sanders speaking to the U.S. Senate, and Trump and Fiorina appearing at a New Hampshire Leadership Summit -- the researchers found that the speakers varied their pitch from very low to medium, eschewing high frequencies altogether. This pattern of use is also found among other mammals, where lower frequency voices often reflect physical size, power, or dominance.

"This vocal profile seems to reflect leaders' use of vocalizations to display dominance while addressing speakers of the same social status," Signorello said. "They use voice to convey their authoritarian charisma."

Signorello and his colleagues also examined the vocal profiles of Clinton, Sanders, Trump and Fiorina in more casual, nonpolitical settings, such as late night talk shows, finding that they use a "healthy" voice, or the normal, non-varying voice they use to speak with their families.

"We found that the leaders - both Democratic and Republican, both genders - have a similar voice profile which is completely different than the other voice profiles in the other [rally and peer] communication contexts," Signorello said.

Signorello and his colleagues currently plan to further investigate the biological basis of charismatic speech in social structures by examining vocal patterns in nonhuman primates. "The goal of this research is to find a link between species, to demonstrate that the similarities in vocalizations between male and female charismatic speakers, in different languages and cultures, are the result of an evolved way of using vocalization by a group's leaders."

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Poster #2aMU3, "Why fry? An exploration of the lowest vocal register in amplified and unamplified singing," by Rosario Signorello will be on display with the authors on Wednesday, May 25, 2016, from 1:00 - 3:00 PM MDT in Salon G. The abstract can be found by searching for the presentation number here: http://acousticalsociety.org/content/spring-meeting-itinerary-planner

ABOUT THE MEETING

The 171st Meeting of the Acoustical Society of America (ASA) will be held May 23 - 27, 2016, at the Salt Lake Marriott Downtown at City Creek Hotel. It will feature more than 900 presentations on sound and its applications in physics, engineering, music, architecture and medicine. Reporters are invited to cover the meeting remotely or attend in person for free.

USEFUL LINKS

Main meeting website: http://acousticalsociety.org/content/spring-2016-meeting

Itinerary planner and technical program: http://acousticalsociety.org/content/spring-meeting-itinerary-planner

WORLD WIDE PRESS ROOM

In the coming weeks, ASA's World Wide Press Room will be updated with additional tips on dozens of newsworthy stories and with lay-language papers, which are 400-900 word summaries of presentations written by scientists for a general audience and accompanied by photos, audio, and video. You can visit the site, beginning in early May, at (http://acoustics.org/current-meeting).

PRESS REGISTRATION

We will grant free registration to credentialed journalists and professional freelance journalists. If you are a reporter and would like to attend, contact John Arnst (jarnst@aip.org, 301-209-3096) who can also help with setting up interviews and obtaining images, sound clips, or background information.

LIVE MEDIA WEBCAST

A press briefing featuring a selection of newsworthy research will be webcast live from the conference on Tuesday, May 24. Topics and time of webcast to be announced.

ABOUT THE ACOUSTICAL SOCIETY OF AMERICA

The Acoustical Society of America (ASA) is the premier international scientific society in acoustics devoted to the science and technology of sound. Its 7,000 members worldwide represent a broad spectrum of the study of acoustics. ASA publications include The Journal of the Acoustical Society of America (the world's leading journal on acoustics), Acoustics Today magazine, books, and standards on acoustics. The society also holds two major scientific meetings each year. For more information about ASA, visit our website at http://www.acousticalsociety.org.

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