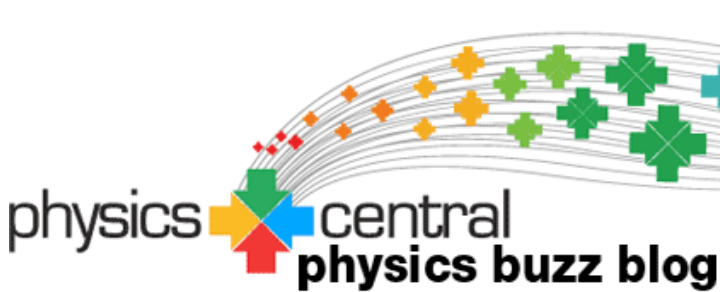


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Thursday, December 07, 2017

## What Does a Leader Sound Like? Scientists Reveal the Power of a Voice

What is it that makes us trust one politician over another? Surely vision and values are key, but as science demonstrates, we are influenced by much subtler things as well. It turns out that our perception of political leaders and even our voting preferences can be swayed by something as simple as the acoustic properties of a leader's voice, according to Rosario Signorello and Didier Demolin from the Laboratoire de Phonétique et Phonologie in Paris. This is the subject of the work they presented at this week's [174th Meeting of the Acoustical Society of America](#) in New Orleans, Louisiana.



Speech is powerful not just because of the words and ideas it conveys, but because the acoustical properties of speech itself—the pitch (or frequency), the range of pitch, loudness, pauses, etc.—all elicit emotional responses. [Previous work](#) by Signorello and others demonstrates that many politicians use a wide range of pitches when speaking to diverse audiences in order to be more persuasive. In contrast, they speak at a lower pitch over a narrower range and in hushed tones in situations where they want to convey power. In other words, politicians, and public speakers in general, use vocal qualities to help shape their social image and they often adjust these qualities depending on their audience.

This new research focuses on the perception of charisma in political speech. Charisma is often seen as a kind of magical quality that makes someone attractive and charming. In this work, the researchers describe charisma as a way of conveying leadership characteristics like vision and strength through cross-language verbal behavior. In other words, charisma is something that people can hear and emotionally respond to even when they don't understand the language being spoken.

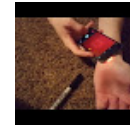
In order to explore how vocal characteristics are related to charisma, emotional triggering, and voting preferences in political speech, the researchers studied two politicians that suffered from vocal disorders during their political careers. Umberto Bossi is an Italian politician and former leader of the Lega Nord party who suffered a serious stroke in 2004 that partially paralyzed his vocal cords. Luiz Inácio Lula da Silva ("Lula") is former president of Brazil who suffered from throat cancer in 2011. In both cases, the disorders affected voice quality, lowering the pitch and narrowing the range. This begs the question: Does a politician's change in voice quality affect how listeners perceive the politician and their voting preferences?

To find out, the researchers collected samples of speeches from the politicians before, during, and after treatment. They recorded the specific acoustic patterns in each case, creating vocal profiles of the different samples. Next, they employed French-speaking listeners that didn't understand the languages being spoken to see how they perceived the charisma and leadership traits in the different cases, along with their emotional response

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and voting preference.

To zoom in on just one politician for the sake of an example, the researchers collected speeches from Lula at four stages: before cancer, at its most severe—when he lost the ability to regulate the pitch and loudness of his voice, six months later when he had regained some control, and 12 months later when Lula had regained most of his initial vocal qualities. Listeners were asked to rate Lula's age based on the vocal samples. Perhaps unsurprisingly, they rated him oldest when his vocal qualities were most diminished by the cancer and youngest when he had the broadest range, pre-cancer.

Age is one of the hardest features of a speaker to assess by voice. For many politicians this is a good thing—through vocal coaching, politicians and others can maintain a healthy voice that makes them sound younger than they really are. This is important because perceived aging can be career-ending, says Signorello. In a politician, aging is often linked with the perception of having weak biological fitness and being less reliable, he says, triggering emotions and voting preferences in listeners that don't match the intended message. For politicians battling vocal disorders, this is not good news. On the other hand, the researchers did find that listeners associated some of the "older" sounding vocal qualities with wisdom and competence. It's a complex scenario. The researchers caution that just as charisma is subject to social trends, so too are the perceptions of vocal patterns.

Either way, this news isn't good for those of us that support a rational and logical approach to the world. In an ideal world, the frequency, pace, and volume with which political leaders speak shouldn't matter nearly as much as the words and ideas they convey, not to mention their behavior. The good news is that through research like this, we can better understand and guard against such unintended biases in the future.

—[Kendra Redmond](#)

Posted by Positron at [12/07/2017 02:11:00 PM](#)

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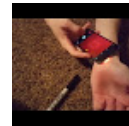
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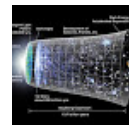
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