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HEALTH & WELLNESS

How to Train Your Voice to Be More Charismatic

Scientists Analyze Public Leaders' Voices to Discover the Basis for Charisma

By **ROBERT LEE HOTZ**

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Scientists are tuning in on the power of the spoken word, seeking the secrets of charisma.

By analyzing the harmonics of pitch, frequency and timbre, researchers at University of California, Los Angeles are discovering how charismatic public speakers use their voices to dominate, rouse and influence a large audience. They are finding that successful politicians in various countries, including Italy, France and Brazil, all share key vocal qualities that strongly affect how people respond to them, independent of the meaning of the words they say or the ideas they express.

In a separate analysis of some prominent business leaders, the researchers also found charismatic patterns in the public speeches of Apple Inc. Chief Executive Tim Cook and the late Steve Jobs.

For speech experts, the voice is an instrument of rare persuasive power, tuned by evolution and culture to communicate far more than words alone convey. Some people are just born with the charismatic qualities that dominate or inspire trust, but voice researchers are confident that at least some of these acoustic elements can be taught.

“You have the capacity to shape your voice in a way that makes people perceive you as a

leader,” said UCLA acoustic scientist Rosario Signorello, who conducted the charisma experiments. He presented his work recently at the annual meeting of the Acoustic Society of America in Indianapolis. “It applies to politicians, to CEOs, to everyone who aspires to leadership status.”

CORPORATE VOCAL CHORDS

Your voice can help or hinder your business career. Researchers at Duke University’s Fuqua School of Business analyzed speech patterns of 792 chief executives at major publicly held companies. Male CEOs with lower-pitched voices:

- Tended to manage larger companies.
- Made up to \$187,000 a year more than higher-pitched peers.
- Lasted as many as five months longer as the head of a firm.

Of course, leadership in any field is more than just noise. Not all successful businessmen, for example, displayed charismatic patterns in public speeches, according to the researchers’ analysis.

In politics and business, public speaking is especially influential. Voters, for instance, tend to favor political candidates with deeper voices, several studies suggest. CEOs with lower-pitched voices typically manage larger firms, make more money and last longer on the job than higher-pitched peers, studies at Duke University’s Fuqua School of Business have found.

“There must be markers in your innate voice,” said Duke University accounting professor William Mayew, who studied how vocal pitch can affect employment prospects, firm management and the trustworthiness of financial reporting. “You don’t just get emotion, but you also get information about the type of person you are dealing with.”

These nonverbal signals can occasionally reveal more than intended. By analyzing speech samples of CEOs recorded during corporate earnings calls with investment analysts, Dr. Mayew identified involuntary vocal cues that signal the likelihood of financial misreporting.

The new research into charisma arises from efforts to understand the relationship between vocal acoustics and the psychology of perception. “Our voice transfers our essence to others,” said speech physiologist Bruce Gerratt at UCLA’s Voice Perception Laboratory. “Some of it is intentional, some of it is unconscious and some of it is biologic.”

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Generally, researchers believe that the voice conveys volumes about social status and power, but efforts to document the acoustic profiles of such effects are controversial. Subtle changes in the biomechanical interplay of the throat, tongue, vocal folds and larynx, caused by disease, aging, stroke or injury, can alter the voice in subtle ways that,

in turn, can change how listeners respond. But researchers investigating the psychology of acoustics haven't yet been able to pin down cause and effect.

"How are these physical changes linked to perceptual changes?" said Jody Kreiman, an expert in voice perception at the UCLA David Geffen School of Medicine's department of head and neck surgery who wasn't involved in the charisma project. "Everybody says this is subjective and can't be measured, but that's nonsense."

In his experiments, Dr. Signorello analyzed recordings of speeches by leaders speaking French, Italian and Portuguese, including François Hollande, the current president of France, and Luiz Inácio Lula da Silva, a former president of Brazil. He also studied speeches given by two Italian politicians, Umberto Bossi and Luigi de Magistris, and by former French President Nicolas Sarkozy.

To isolate acoustic properties, Dr. Signorello used a speech synthesizer to eliminate the actual meaning of the words being spoken. The frequency, intensity, cadence, duration and other vocal qualities remained intact.

Then, to understand how acoustic traits affected perceptions, Dr. Signorello and his colleagues asked 107 female and 26 male volunteers to rate a speaker's charisma on a scale using 67 positive or negative adjectives, ranging from eloquent and bewitching to egocentric and menacing. To ensure that only perceptions of vocal qualities were measured, they also had the Italian speeches rated by 48 people who didn't speak Italian, and the French speeches rated by 48 people who didn't speak French.

Generally, someone speaking in a low-pitched voice is always perceived as big and dominant, while someone speaking in a high voice is perceived as small and submissive. When speaking to crowds, the political leaders typically stretched their voices to extremes, with a wide range of frequency variation, Dr. Signorello said.

"In the three languages, I see a similar pattern," he said. "My research shows that charismatic leaders of any type in any culture tend to stretch their voice to the lower and higher limits during a public speech, which is the most important and risky context of communication for leadership," he said.

These leaders adopted an entirely different tone when speaking to other high-ranking politicians or when the subject strayed from political topics. “They stretch their voice less when they speak to other leaders, keeping the vocal pitch very low. They stretch the voice limits even less when they speak about nonpolitical topics,” Dr. Signorello said.

In one experiment, he found he could change the way people perceived President Hollande of France by artificially dialing the pitch of his voice up or down.

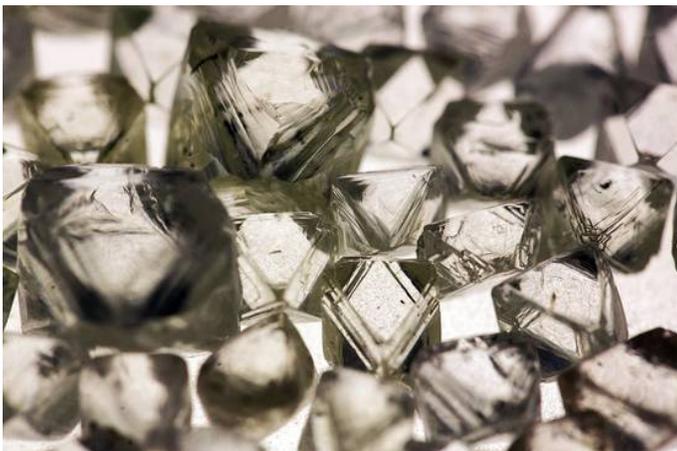
Aspiring executives should take note, Dr. Signorello said. “The voice is a tool that can be trained,” he said. “Singers and actors train their voices to reach higher or lower frequencies. A leader-speaker should do the same.”

So far, he has only tested male voices. Given gender-based differences in the larynx and vocal folds, the characteristics of charisma he has identified so far may not apply to how women speak. He has started collecting speech samples for an analysis of female leaders.

“Maybe there is a charismatic voice just for women,” Dr. Signorello said.

Deliberately lowering the voice to resemble the sound of a successful male voice, though, can backfire, Duke University’s Dr. Mayew discovered. Young women who adopted a distinctive low, guttural way of talking that linguists call “vocal fry” were perceived as less competent, less educated, less trustworthy, less attractive and less hireable.

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