

# RESEARCH IN ACTION:

## Wharton's [Jonah Berger](#) Studies Gender Bias through Music

### THE PROBLEM:

Is there a better way to understand gender bias and whether it has changed over time? One interesting pathway to track such changes comes from an unlikely source: music. Music has always been an expression of culture, but modern music often has been criticized for lyrics that are sexist, derisive, and demeaning to women. Whether rock, pop, rap, or country, few genres have spared women from being the object of aggression. Marketing professor [Jonah Berger](#), who studies social influence and how language shapes behavior, said lyrics both reflect and shape culture, so they can provide important insight into cultural change.



## THE RESEARCH:

In his co-authored study, “[Quantifying Cultural Change: Gender Bias in Music](#),” Berger used machine learning to determine whether music become less misogynistic over time. They analyzed more than 250,000 songs spanning 50 years and six genres – pop, rock, country, rap, dance, and R&B. There was improvement up until the mid-1990s, then a leveling off or reversal. Male artists were mostly responsible for the downshift, because female artists were less biased to begin with.

“While things have certainly improved over the last 50 years, they haven’t reached complete equality,” Berger said. “Lyrics are still biased against women.”

Rather than measure bias through subjective interpretation, the study measured whether women, compared to men, were described as competent and intelligent or merely warm or kind.

“These subtle linguistic choices have pernicious impacts,” Berger said. “Being nice, warm, and kind are all good things. But when making important decisions, like who to hire or give raise, competence often matters more than warmth.”

## THE SOLUTION:

Berger said awareness and acknowledgement of bias is a first step toward correction. Music is one form of communication that can shape attitudes and behaviors, but there are many others. In business, that could be advertising and marketing materials, or hiring and training materials. For example, if a manager is always referred to as a man, people unconsciously associate leadership roles with men.

“Culture is a self-reinforcing system,” Berger said. “Both as producers of language and consumers of language, the more we are aware of these biases and try to correct them, the more we can make a more equitable future.”



## THE SCHOLAR: *JONAH BERGER*

Jonah Berger is an expert on change, influence, consumer behavior, and how products, ideas, and behaviors catch on. He specializes in using natural language processing to extract insights from text data. He has been published in top academic journals, and his work has been covered by major media outlets such as The New York Times, The Wall Street Journal, and Harvard Business Review. He's written four bestselling books on the power of language, including "Magic Words: What to Say to Get Your Way." He's a sought-after speaker, adviser, and consultant.

Berger said he's always had an interest in issues of diversity, equity and inclusion, but it became more pronounced when he had a daughter. He began paying closer attention to gender bias and realized how much it permeates everyday life.

"Raising a daughter changed my life in a lot of ways," he said. "Even children's books disproportionately use male protagonists, or represent female characters differently, so we often change the roles to make things more equal."

Berger holds a bachelor's degree in human judgment and decision-making from Stanford University, and a Ph.D. in marketing from Stanford. He joined Wharton in 2007 and has also been a visiting professor at Duke and Cornell universities.

The Wharton Coalition for Equity and Opportunity (CEO) creates research-driven solutions to help current and future leaders ensure equity in business relationships and leadership. Dean Erika James, who is Wharton's first Black and first female dean, is emblematic of a paradigm shift in executive leadership. She has launched the Wharton Coalition for Equity and Opportunity as the hallmark of her leadership commitment to diversity, equity, and inclusion. The initiative is being led by Kenneth L. Shropshire, Wharton emeritus professor of legal studies and business ethics. Shropshire is the former director of the Wharton Sports Business Initiative and former CEO of the Global Sport Institute.