

New research suggests lullabies and dancing are not universal

By Nicole Pomerantz, ASU News
April 29, 2025

For decades, anthropologists believed that singing to fussy babies and dancing were universal among humans. However, a new study challenges this idea.

The research stems from an Indigenous population in Paraguay: the Northern Aché.

[Kim Hill](#), an anthropologist at Arizona State University, has spent over 40 years observing, living with and befriending this community. During that time, Hill has never seen the [Aché](#) dancing or singing lullabies.

“Dance and infant-related song are widely considered universal — a view that has been supported by cross-cultural research, including my own,” said lead author [Manvir Singh](#), an assistant professor of anthropology at the University of California, Davis. “And this conclusion, in turn, informs evolutionary theorizing about music’s origins.”

Singh and Hill’s research supports the idea that dance and lullabies are learned behaviors that don’t arise spontaneously; individuals must invent, tweak and culturally transmit them.

Living with the Aché

Between 1977 and 2020, Hill, an associate director at the [Institute of Human Origins](#) at ASU and a professor in the [School of Human Evolution and Social Change](#), spent more than 120 months living among Northern Aché communities. He thoroughly documented various aspects of Aché life and behavior, including their relationship to music.

“I lived with the Aché, I ate meals with them,” Hill said. “I was in really intimate proximity to them. I learned how to speak their language, I listened to them gossip, I listened to the kids crying. The big picture is: The details are different, but basically all humans are interested in the same things. The Aché’s concerns in life are family and friends; those are their top concerns in life.”

Singing among the Aché was limited and a solo pursuit, performed by one individual rather than with a group, Hill explained. Men sang more than women, and they sang primarily about hunting but sometimes about current events and social conflict. Women sing primarily about dead loved ones. Northern Aché children sometimes mimic adult songs.

Hill and other researchers never witnessed infant-directed song or dancing among the Northern Aché community.

“It’s not that the Northern Aché don’t have any need for lullabies,” Singh said. “Aché parents still calm fussy infants. They use playful speech, funny faces, smiling and giggling. Given that lullabies have been shown to soothe infants, Aché parents would presumably find them useful.”

Singh’s previous ethnomusicological research suggested that practices like dance and lullabies were universal human behaviors. Eventually, Hill contacted Singh and his co-authors and notified them that the Northern Aché appeared to be an exception.

A lost practice

According to the researchers, evidence suggests that the Northern Aché lost dance and infant-related song — along with other cultural practices such as shamanism, horticulture and the ability to make fire — during significant population bottlenecks.

But it’s also possible that the practices were lost when the Northern Aché were settled on reservations. During that time, other traditional behaviors disappeared, including puberty ceremonies and hunting magic.

The researchers note that dance and lullabies may have been introduced to the Northern Aché in the years following the conclusion of Hill’s fieldwork in 2020, which coincided with the growing presence of Paraguayan missionaries.

The research supports the idea that infant-directed song and dance aren’t inherent human behaviors, like smiling. Rather, they’re more like fire-making, a behavior that must be invented and learned.

“This doesn’t refute the possibility that humans have genetically evolved adaptations for dancing and responding to lullabies,” Singh said. “It does mean, however, that cultural transmission matters much more for maintaining those behaviors than many researchers, including myself, have suspected.”

The article, [*“Loss of dance and infant-directed song among the Northern Ache,”*](#) is published in *Current Biology*.

Article adapted from work by Greg Watry at University of California, Davis.

This story originally appeared on [ASU News](#).

Main image



(From left) A Northern Aché mother uses tickling to calm an infant (photo by Kim Hill); Southern Aché individuals play flutes and dance collectively (photo by Bjarne Fostervold); and a Northern Aché hunter blows on the embers of a burning stick to keep it lit — having lost the ability to make fire, men and women preserved fire in this way (photo by Kim Hill). Photos published in the journal *Current Biology*.

Text image(s)



Assistant Professor Manvir Singh of UC Davis. Courtesy photo



ASU Professor Kim Hill. Courtesy photos