

Is it too late to change your mind? Study reveals 'developmental window' for thinking styles

May 12 2023, by Holly Ober



A speaker addresses a crowd in Timișoara, Romania, during the 1989 revolution that ousted Nicolae Ceaușescu. Researchers studied how Romanians' epistemic thinking styles were affected the transition from authoritarian rule to democracy. Credit: Wikimedia Commons

While people change and learn throughout life, experts recognize that certain formative periods, known as developmental windows, are crucial for acquiring particular skills. For example, using vocalizations and words to interact with people in the first few years of life is critical for children's language learning.

A recent study by an international team from UCLA, Romania and Israel suggests there may be a developmental window for reasoning skills as well—the first 25 years of life—and that a person's social, political and [economic environment](#) strongly influences how they acquire these skills. Their findings are published in the journal *PLOS One*.

The researchers found that following the collapse of Romania's authoritarian communist regime in 1989, the rapid increase in education and technology use and the transition from a single, government-controlled source of information to diverse sources had a strong effect on the way people, particularly [younger generations](#), thought about and determined truthfulness, a process known as "epistemic thinking."

Epistemic thinking runs the gamut from absolutist thinking, the belief that only one claim can be right, to multiplist thinking, the belief that more than one claim could be right—it's just a matter of opinion. Finally, evaluativist thinking posits that assertions can be evaluated in terms of both logic and evidence.

"Whether we are monitoring various news sources or scrolling through a busy Twitter feed, we are constantly encountering diverse viewpoints about topics ranging from politics to films," said the study's first author, Amalia Ionescu, a doctoral student in psychology at UCLA. "Some of these topics carry infinitely more weight than others, but ultimately, we are using the same sort of mechanism when deciding how to make sense of contrasting viewpoints."

In the U.S., developmental psychology research has shown that children typically think in absolutist terms, then progress to multiplist thinking and sometimes, particularly with a relatively high level of education and exposure to various experiences and points of view, emerge as evaluativist adults. The study authors hypothesized that in a society ruled by an authoritarian government, with strict control over information, limited education and little exposure to the outside world, absolutist thinking would be more prevalent. Conversely, in an open, democratic society, there would likely be a higher occurrence of evaluativist thinking.

To test this, they focused on Romania, which in the late 1940s became communist and aligned itself with the Soviet Union. Beginning in 1965, under the authoritarian leadership of Nicolae Ceaușescu, Romania became increasingly repressive and isolated. After Ceaușescu was overthrown in 1989, the country quickly moved toward democracy, embraced a market economy and joined the European Union. Today, Romanians have a developing education system and [open access](#) to technology, [social media](#), consumer goods and travel.

How, the researchers asked, may this transition have affected Romanians' epistemic thinking? Focusing on three age cohorts—those born after the democratic revolution (18–30 years old), those who spent their late adolescence and early adulthood under the authoritarian regime (45–59) and those who spent at least 45 years under the authoritarian regime (75 and older)—the authors presented respondents with scenarios in which two characters had contrasting views. They then asked the respondents: Which character is right? Or are both of them right? Why?

They found that there was a greater occurrence of absolutist thinking among those who had experienced the transition to democracy in middle age rather than at an earlier period of life.

The vast majority of those 75 or older tended to read or listen to the news and instantly take it as truth, "possibly because for most of their lives, they had only one TV program to watch, and all books, news, movies and music were under communist censorship," said co-author Raluca Furdui, a master's student at Romania's West University of Timișoara. "They learned to respect the authority of the teachers in schools, and some never even had the chance to go to high school.

"In contrast," Furdui said, "we, the youngest generation in our study—currently between 18 and 30—were challenged by our teachers to express our opinions, think critically and check information."

The researchers found that evaluativism was most common among this youngest generation, which also had the highest education levels. Lower levels of both formal education and social media use predicted higher levels of absolutist thinking and lower levels of evaluativism.

The study authors concluded that the developmental window for epistemic thinking is open during the first 25 years of life, after which it slowly closes, and a person's epistemic thinking style will change little later in adulthood.

"We found that the social environment produced by a combination of democracy and a market economy more frequently led people to abandon the assumption that there is one right answer and to evaluate multiple possibilities—when one was born into this environment or when it was experienced in the first 25 years of life" rather than in middle age or beyond, said co-author Patricia Greenfield, a UCLA distinguished professor of psychology. "We found that there is indeed a sensitive developmental period for acquiring cultural ways of thinking."

The 'open information' pendulum can swing the

opposite way too

The authors also said they believe their findings can help explain why unfettered access to information, social media and a plethora of personal opinions can sometimes lead in the opposite direction—toward absolutist thinking and authoritarian politics.

"Along with the rise of the internet and social media, there has been, in the United States, a rise in the importance of personal opinion, along with a decline in the importance of agreed-upon facts," Greenfield said.

And while the trend toward increasing sources of information and opinions in Romania has been associated with the democratization and opening up of society, in the U.S., the indiscriminate application of the principle that everyone has a right to their own opinion has led to information silos and absolutist thinking.

"In Romania, the transition from authoritarianism to democracy was related to a decline in absolute thinking and a rise in evaluation as a form of thought," said co-author Michael Weinstock, an associate professor of education at Israel's Ben Gurion University of the Negev. "But based on our research, one would predict that that the opposite change in the environment—towards more authoritarianism—would lead to the opposite direction of change towards more absolutist thinking."

Changes in the authoritarian direction happened in the U.S. under the Trump administration, the study authors said, and have recently been happening in other countries around the world.

More information: Amalia Ionescu et al, The effects of sociocultural changes on epistemic thinking across three generations in Romania, *PLOS ONE* (2023). [DOI: 10.1371/journal.pone.0281785](https://doi.org/10.1371/journal.pone.0281785)

Provided by University of California, Los Angeles

Citation: Is it too late to change your mind? Study reveals 'developmental window' for thinking styles (2023, May 12) retrieved 5 May 2024 from <https://phys.org/news/2023-05-late-mind-reveals-developmental-window.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.