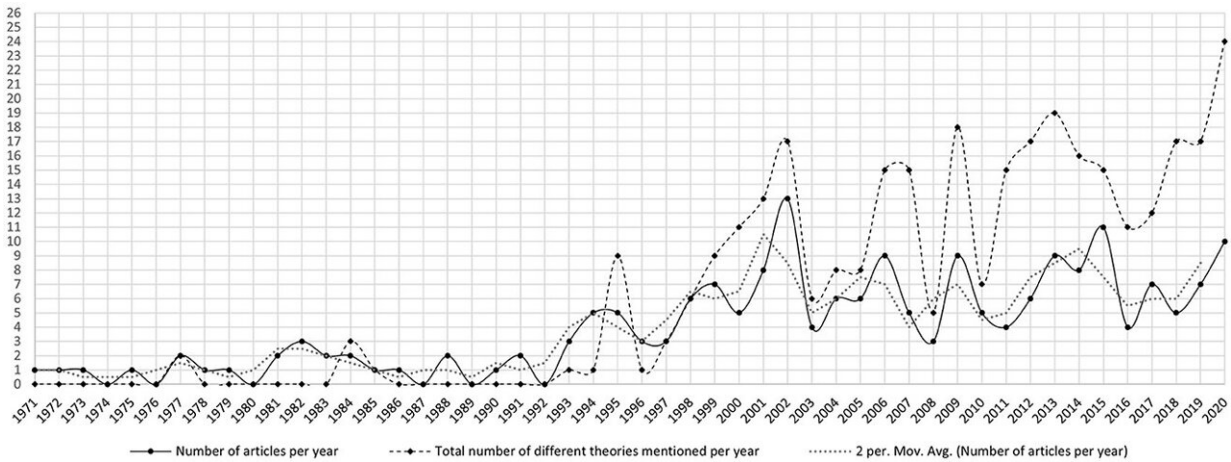


Scientists: Research on environmental attitudes might be biased

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Yearly distribution of articles and different theories mentioned from 1971 to 2020. Credit: *Frontiers in Sociology* (2023). DOI: 10.3389/fsoc.2023.1136972

The majority of research on environmental attitudes and behavior is coming from the United States and other English-speaking countries, a recent study by scientists from Lithuania and Austria reveals. Thus, the global applicability of the theories, which are used in designing environmental policies, becomes arguable.

The scientific field of environmental sociology is counting its seventh decade. In the 1970s, social sciences saw the shift towards the new ecological paradigm, where human beings and society are perceived as

interrelated, belonging to the larger natural ecosystem. That is when the first scientific papers on environmental attitudes and behavior were published.

"Since the end of the last century, the global environmental problems have become increasingly topical. Environmentalists were warning about ozone depletion, the greenhouse effect, global warming, and climate change. Today, according to the United Nations, we are living in a planetary crisis, including [climate change](#), biodiversity loss, pollution and land degradation. Naturally, the society's environmental concern grew together with the growing amounts of scientific data," says Professor Audronė Telešienė from Kaunas University of Technology (KTU), Lithuania.

According to her, policymakers around the world rely more and more on [social scientists](#), while designing policies, which could encourage society's green transformation, i.e., shift to more environmentally friendly, everyday practices.

Behavioral change: One of the ways to mitigate climate crisis consequences

Telešienė says that the systemic literature [review](#) published in *Frontiers in Sociology* on environmental attitudes and behavior, which she carried out together with Professor Markus Hadler from the University of Graz, Austria, was aimed at shedding light on the environmental social sciences' landscape.

The study revealed that since the year 2000, the number of publications and topics on environmental attitudes and behavior has been steadily increasing. The scientists believe that this indicates environmental sociology becoming an established field of study.

"Research is getting more and more specific and looks into more details. The flip side of the coin is that a general overview might get lost and that we need people who keep an eye on the larger picture. Possibly a reason why [interdisciplinary research](#) is more and more wanted," says Hadler.

Telešienė adds that environmental attitudes and behavior is a very broad field, which includes individual practices and choices, such as waste sorting, energy usage and food consumption, environmental activism and other aspects. It means that new niches for research are opening up at the intersections of sociology and other sciences, such as economy, energy or food science.

She points out that environmentalists have long agreed that there are two ways to minimize the outcomes of the climate crisis—technological innovation and behavioral change. How can we change people's behaviors: the ways they get and use energy, their eating and food supply habits, and their usage of materials and things?

"We, scientists, face a great demand for research from stakeholders. We are asked to provide advice when designing political documents, and planning economic measures for achieving the desired behavioral change. This study helped get a fuller picture of the research, which can be used for drawing recommendations to the policymakers," says Telešienė.

Scientific ideas and theories are influenced by the English-speaking world

The most striking discovery of the study was geographical disbalance—the empirical research on environmental attitudes and behavior was mainly generated in the United States. According to Telešienė, partly it is natural, as the strongest environmental activism

movements and the environmental social sciences were born in the U.S. half the century ago. However, it also means that the theories, on which sociologists base their recommendations in different parts of the world, are validated by the research findings from a few English-speaking countries.

"For example, a very popular theory in environmental sociology is: that values impact attitudes, attitudes impact intentions, and intentions become behavior. This theory is mostly based on research from the US, and, partly, from the United Kingdom and Canada. This is only a handful of countries, and although we might guess that similar patterns should be prevalent in the societies in other parts of the world, we don't know if the same is true for Asian, African or Latin American people," says Telešienė.

She adds that another popular theory claiming that there is a direct correlation between the amount of knowledge on environmental issues and environmentally friendly behavior is not applicable in Lithuanian society.

"Every society has a different social and cultural structure, that's why we need more knowledge from different places and regions of the world," says Telešienė, who together with colleagues from the Civil Society and Sustainability research group at KTU, has been conducting research on Lithuanian environmental attitudes and behavior since 2010.

Hadler points out another issue, related to what was discussed above—the most-cited scientific journals are published in English and often in the United States. Scholars in other countries, especially, in non-English speaking countries, face the problem that they have to inform the local stakeholders and community in their native language, while scientific work is more visible when it is written in English.

"It's more difficult to do both at the same time. As a consequence, scientific ideas and theories are more influenced by the English-speaking world," says the researcher from Graz University in Austria.

Psychological reasons can explain only 30% of behavior

The study also revealed that environmental behaviors and attitudes are more often explained by psychological variables, such as values, beliefs, and attitudes. Changing a society's or an individual's belief system is a very long process, which involves communication via media, and education. However, according to Telešienė, psychological variables can only explain about 30% of environmental behavior.

"Psychology-based explanations are overlooking the so-called social embeddedness, i.e. context in which behavior occurs. An individual can have very pro-ecological attitudes, but if there is no infrastructure, say, the place to dispose of the sorted waste, these attitudes will not translate into behavior," says Telešienė.

She reminds the precedent of the deposit system in Lithuania, which came into effect in 2016. During its second year of implementation, the collection rate of drinks containers reached 90% and exceeded all expectations. According to Telešienė, in this case, the economic motivation (receiving 0.1 euros per returned container) serves as an encouragement for a pro-ecological lifestyle.

"Context can be a very powerful catalyst bringing out an environmentally-friendly behavior without any psychological intervention or changes to an individual's belief system," says Telešienė.

The scientist, who has been researching local environmental attitudes

and behavior for more than ten years, says that environmental concern in Lithuanian society is growing. However, it cannot be compared with, for example, Scandinavian societies, where the global climate crisis has been defined as one of the top three major societal concerns for several years now. In Lithuania, the global climate crisis is identified among major concerns only when people are asked specifically about environmental issues. According to the KTU sociologist, this indicates Lithuanian society's shift towards increased environmental awareness.

Politicians turn to scientists for advice

The researchers believe that the scientific, political, media and public discourses are interrelated. Although this specific study may not be directly applicable to design political measures, as the paper focuses on the development of theories and what was emphasized over time, certain indirect takeaways are likely.

"Just as the theories are more and more focused on individual explanations, the measures might also focus more on individuals, whereas societal structures and dynamics are overlooked," ponders Hadler.

Telešienė believes that scientists usually are those, who raise an issue; only later it becomes a topic of media and public discourse. On the other hand, scientists are also those, who are asked to define the established problems, to issue recommendations, which, in turn, leads to more research.

"We are working with the Lithuanian Ministry of Environment, using our research for informed discussions. Also, our researchers have been asked to assist in generating a strategy for environmental protection communication. The goal of the strategy is to change the environmental attitudes and behavior of Lithuanian society. Of course, one strategy will

not make the change, but I am happy that we could contribute with our knowledge and research data," says Telešienė, a researcher at KTU Faculty of Social Sciences, Arts and Humanities.

Although such collaboration with local authorities requires local knowledge, local research needs to be shared internationally. Hadler, who is a member of the International Social Survey Program, is positive that data collection in different countries is happening. The problem is research visibility.

"In Europe, we have CESSDA, an archive that contains tens of thousands of European studies and data collections held by our Service Providers. Local researchers need to make sure that their data is visible in this consortium of archives," says Hadler.

The scientists believe that their study is an important attempt to synthesize knowledge on research on [environmental attitudes](#) and behaviors, which should attract the attention of the scientific community.

More information: Audrone Telesiene et al, Dynamics and landscape of academic discourse on environmental attitudes and behaviors since the 1970s, *Frontiers in Sociology* (2023). [DOI: 10.3389/fsoc.2023.1136972](#)

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