

Science for Environment Policy

Personal experience with global warming drives mitigation behaviour

A number of studies have shown that the public misunderstand global warming. Taking a fresh approach, this study investigated the willingness of the public to take part in activities that mitigate climate change. An international survey of 24 countries revealed that this is strongly related to personal experiences with global warming. The authors say linking actions to benefits could encourage climate change mitigation behaviour.

While we know public perception of [climate science](#) is often inaccurate, understanding of what causes beneficial behaviour change is less complete. The factors that [influence the decision](#) to take part in actions to mitigate global warming include not only knowledge but also beliefs in personal experience of unusual weather, general beliefs and worldviews.

In this study, researchers conducted an international survey to determine the factors that are most influential. The US-based researchers administered an online survey to 25 samples of participants in 24 different countries, gaining a total of 11 614 responses. The survey was designed to measure six key factors: belief in global warming, environmental worldview, self-efficacy (an individual's judgement of their ability to have a significant effect on outcome), personal experience with global warming, belief in the free market system, and knowledge about the causes of global warming.

The survey also asked the participants about their general intentions to mitigate climate change, and willingness to take part in specific activities. General intentions were measured by statements such as "I plan to take some actions to stop global warming", while specific behaviours included "Concerns about global warming guide my voting behaviour" and "I intend to carpool and drive less".

Most samples endorsed general action more than specific actions, although several Asian countries did not follow this trend. In all samples, the most endorsed specific action involved adjusting home temperature (e.g. using less heating in the winter), followed by changes to commuting and then voting.

The researchers next analysed which factors best predicted intention to act, both for general and specific actions. Most significantly, they found that personal experience (e.g. "Changes in global warming have impacted my life already") is most important in predicting specific action, while self-efficacy is more important for general intention to act.

The authors say this is because intention to perform concrete actions is strongly linked to personal experiences that highlight the value of these actions, while thinking about general mitigation action is more associated with abstract or 'big-picture' thinking and therefore feelings of self-efficacy.

The three factors most important in predicting action were pro-environmental worldview, personal experience with global warming, and feelings of self-efficacy.

The least important predictors were gender, age, belief in the free market system, political affiliation and knowledge of global warming.

The researchers also found that differences between individuals *within* samples were greater than differences *between* samples, suggesting that willingness to take part in mitigation actions (and its drivers) does not much differ between nations and cultures. Importantly, this indicates that climate change communication schemes could be used across the world with little variation.

The authors provide recommendations on how to use their findings to encourage climate change mitigation behaviour among citizens.

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Personal experience with global warming drives mitigation behaviour (continued)

For example, the study found that while most respondents were generally willing to mitigate climate change, they were much less willing to perform specific actions. The authors say this common problem could be tackled by highlighting the personal effects of future climate changes, such as more frequent flooding or the later blossoming of plants in a local area.

While personal experiences foster one's perceived value of mitigation action, the random variability of experiences does not generate consistent (sustained) action that is needed. The researchers suggest that communication and education strategies focus on additional (or alternative) sources to foster perceived value in mitigation action.

For instance, as different locations will experience varying effects of climate change, which may increase variability in public opinion. An alternative way to motivate mitigation behaviour could be to link actions to their effects on the wider environment. The authors say this would improve 'causal mental models' and help the public to visualise the effects of their actions.



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