

HOW CAN WE GET PEOPLE TO CHANGE BEHAVIOR WHEN IT COMES TO CLIMATE CHANGE?

Changing our habits is fundamental to tackling the enormous challenge we are faced with. Behavioral science shines a light on why we think and act a certain way, and why our individual behaviors are not where we need them to be to mitigate climate change.

People suffer from probability biases. We have a tendency to vastly overestimate the likelihood of positive things happening to us—such as winning the lottery—and underestimate the chances of bad things happening such as being hit by floods, natural disasters or wildfires. Our inability to think rationally about the likelihood of negative events happening leads us to be grossly underprepared when they do happen. An example of this is the common lack of insurance for such disasters. We are seeing more people lose cars, homes, and all their possessions and they don't have insurance to recover their assets. These same people take precautions in other areas of their lives by buying health, life and vehicle insurance, but they never thought they would be affected by extreme weather events.

UCLA psychologist, Per Espen Stoknes, studied this phenomenon of the lack of insurance when it comes to extreme weather events and found that as the depth and accuracy of climate science increased, the level of concern in rich Western democracies fell. This supports the notion that even when we are fully aware of the dangers of climate change and in fact have access to more information about it, we do not respond with the appropriate level of concern. Stoknes identified five barriers to climate action: distance, doom, dissonance, denial, and identity.

Distance in both proximity and time to the effects of climate change is vital to how we view the looming threat. Most people live a long way from the melting glaciers we hear about. While we may all feel sad and guilty when we see photos of emaciated polar bears, that image realistically does not affect our everyday lives. Moreover, many of the climate models used in research predict scenarios for 2050 or 2100, making it very difficult to feel attached enough to incentivise significant changes to our current lifestyles given our general inability to exercise delayed gratification behaviors.

Other studies support this. Sirois (2014) concluded that those with a tendency for procrastination focus less on the future. Moreover, a 2009 study by Ersner-Hershfield et al tested participants on 'future-self continuity,' which is how closely a person views their present self with their future self. Through answering a number of questions, each participant was given a score. The research found that those that viewed their future-self more closely had a greater accumulation of savings and financial assets.

Essentially, they were more likely to act in their own best interests at the present time to ensure greater financial security in the future. On the other hand, those with much lower scores view their future-self akin to a different person altogether and therefore do not change their current behaviors. We can apply this thinking to climate action. Those that feel more detached from

their future-self are less likely to change their diets or transportation habits now if they do not believe it will benefit them in the future.

The doomsday-like framing of climate change is another hindrance to effectively changing individuals' behaviors. Stoknes notes that "if you overuse fear-inducing imagery, what you get is fear and guilt in people, and this makes people more passive, which counteracts engagement." He suggests framing news and research in an opportunistic manner to raise moods and induce creativity to find solutions.

Dissonance is the disparity between doing what we know we should do and the reality of our everyday actions. People look for justifications of their own actions such as pointing the finger at other countries for their emissions or at individuals they know who have a high carbon footprint. Dissonance can also lead to denial and rejection of scientific evidence. Stoknes says that dissonance is often used by people as a defence mechanism in the face of a challenging situation or as a chance to feel less insecure after someone criticises their lifestyle. Since lifestyles and identity are intimately linked, we take any criticism of our choices as a challenge to our identity. Criticism of people as an attempt to get them to change only reinforces their current views and/or behavior.

A better approach to inspiring people to change their behavior is education. Education on the benefits of change empowers people to make decisions that they feel are in their best interest rather than being forced into it by others. The Mainstreaming low-carbon lifestyles research paper (2018) reinforces this. It concluded that behavior-change campaigns must focus on messaging that appeals to people's values, while also building a sense of confidence and self-efficacy in their ability to take action.

To successfully influence our behavioral approach to climate change, we need to change how we communicate when we talk or write about climate change. Psychologist; George Marshall, author of **Why Our Brains Are Wired to Ignore Climate Change**, says that humans are more inclined to believe information presented in a narratively satisfying way. It appeals to our 'emotional brain' and motivates us to think about climate change in a more personal and relatable way. By cultivating positive emotions associated with climate actions rather than negative emotions coming from climate impacts or news, we can begin to make the necessary changes to our behavior.

A report on net zero targets notes that much of the UK's emission reductions have come from areas that do not involve making meaningful changes in individuals' behaviors. If we are to meet our targets, however, individuals' behaviors must become a much larger focus. The report suggests that policies for behavioral change may be best informed by two strategies. Firstly, policies should enable consumers to take specific actions that lead to emissions reductions and, secondly, they should create a wider context that focuses more on public engagement.

There is now very little, if any, doubt that the global climate is changing and that this is in some way related to human behavior through unsustainable preferences in lifestyle and organizational

practices. Despite the near conclusive evidence of the positive relationship between greenhouse gas emissions and global warming, a small proportion of people remain unconvinced. More importantly, even among the much larger number of people who accept a link between human behavior and climate change, many are inactive, or insufficiently active, in attempting to remedy the situation. We suggest this is partly because people are unaware both of how their day-to-day behaviors connect with energy consumption and carbon emissions, and of the behavioral alternatives that are available to them. This, we believe, is a key reason why individual lifestyles and organizational practices continue in an unsustainable way. We also suggest that the psychologists and behavioral researchers who seek to develop a better understanding of people's relationship with, and reaction to, environmental issues, might also be on track to suffer a similar blindness.

They risk becoming fixed on investigating a limited range of established variables, perhaps to the detriment of alternative approaches that are more practically oriented though, so far, less well explored empirically. In this article, we present the Framework for Internal Transformation as an alternative perspective on the variables that might underpin pro-environmental activity and behavior change. After briefly reviewing the related literature, we outline that framework. Then we present some early empirical data to show its relationship to a range of pro-environmental indices. We follow with a discussion of the framework's relevance in relation to pro-environmental behavior change and make proposals for future research.

The scientific evidence surrounding climate change has grown considerably over the past three decades following the UN Conference on the Changing Atmosphere in 1988. More recently, a report compiled by an international consortium of scientists, the largest of its kind to date, has suggested that the large majority of climate researchers agree that human activity is contributing to global warming (Doran and Zimmerman, 2009; IPCC, 2013). To quote, the UN's climate-panel scientists are 95% certain that humans are the "dominant cause" of global warming since the 1950s. Cumulatively, there is a clear message emanating from the scientific evidence: there is a significant relationship between changes to the climate and human behavior, as reflected in lifestyle preferences and organizational practices.

Despite the increasing scientific evidence it seems that a large majority of people still remain either unaware, in denial, or otherwise disengaged with the problem of climate change. This is reflected in the fact that UK energy consumption relating to transportation and households has continued to rise in recent years (DEFRA, 2006; notwithstanding some small drops recently, largely as a result of the financial recession). The IPCC (2013) suggests that human behavior is responsible for more than half of the observed increases in the climate. Elsewhere, it is also reported that only a minority of people are taking action to mitigate the effect (Whitmarsh, 2009). This means that for most individuals, daily life continues in a way that is unsustainable.

There are a variety of broadly psychological questions – that is, questions relating to human cognition, affect, and behavior – that arise in relation to climate change and sustainability. Do people have a realistic awareness of the scientific evidence showing the connection between human behavior in general and changes to the earth's climate? If so, how does this make them

feel and act? How aware are people of the effects of their own personal behavior and how this behavior might itself be unsustainable? In this regard, how aware are people of the alternative behavioral options that are available to them? And how willing and capable are people of changing their behavior in the cause of improved sustainability (explicitly acknowledging here the distinct difference between willingness and capability)?

It is clear that these questions, and the answers to them, present a set of interrelated challenges to researchers who seek to better understand the relationship between people and their changing environment.