

PSYCHOLOGY & GLOBAL CLIMATE CHANGE

addressing a multifaceted phenomenon and set of challenges

**EXECUTIVE
SUMMARY**

A Report of the American Psychological Association
Task Force on the Interface Between Psychology & Global Climate Change

PSYCHOLOGY & GLOBAL CLIMATE CHANGE

**addressing a multifaceted phenomenon
and set of challenges**

A REPORT OF
the American Psychological Association
Task Force on the Interface Between
Psychology and Global Climate Change

The full report was released in 2009 and is available at
<http://www.apa.org/science/climate-change>

MEMBERS

Janet Swim, PhD, Chair
Pennsylvania State University

George Howard, PhD
University of Notre Dame

Susan Clayton, PhD
College of Wooster

Joseph Reser, PhD
Griffith University

Thomas Doherty, PsyD
Sustainable Self, LLC

Paul Stern, PhD
National Academies of Science

Robert Gifford, PhD
University of Victoria

Elke Weber, PhD
Columbia University

EXECUTIVE SUMMARY

Addressing climate change is arguably one of the most pressing tasks facing our planet and its inhabitants. In bio and geophysical terms, climate change is defined as changes over time in the averages and variability of surface temperature, precipitation, and wind as well as associated changes in Earth's atmosphere, oceans and natural water supplies, snow and ice, land surface, ecosystems, and living organisms (Intergovernmental Panel on Climate Change [IPCC], 2007b). What is unique about current global climate change, relative to historical changes, is the causal role of human activity (also called anthropogenic forcing) and the current and projected dramatic changes in climate across the globe.

Our primary aim in our report is to engage members of the psychology community (teachers, researchers, practitioners, and students) in the issue of climate change. To this end, this American Psychological Association (APA) task force report describes the contributions of psychological research to an understanding of psychological dimensions of global climate change, provides research

recommendations, and proposes policies for APA to assist psychologists' engagement with this issue.

Research Review and Recommendations

This APA Climate Change Task Force Report considers psychology's contribution to climate change by addressing the following six questions:

Section 1: How do people understand the risks imposed by climate change?

Long-term climate is a phenomenon not easily detected by personal experience, yet one that invites personal observation and evaluation. Concern about adverse consequences of climate change (e.g., extreme weather events like droughts or floods) is low on average in places such as the United States, in part because small probability events tend to be underestimated in decisions based on personal experience, unless they have recently occurred, in which case they are vastly overestimated. Many think of climate change risks (and thus of the benefits of mitigating them) as both considerably uncertain and as being mostly in the future and geographically distant, all factors that lead people to discount them. The costs of mitigation, on the other hand, will be incurred with certainty in the present or near future. Emotional reactions to climate change are likely to influence perceptions of risk. Yet, emotional reactions to climate change risks are likely to be conflicted and muted because climate change can be seen as a natural process, and global environmental systems perceived as beyond the control of individuals, communities, and, quite possibly, science and technology. There is, however, significant variability in people's reactions to climate risks, much of which is mediated by cultural values and beliefs.

Section 2: What are the human behavioral contributions to climate change and the psychological and contextual drivers of these contributions?

Human actions that influence climate change include those resulting from demands to accommodate population growth and region-specific types and patterns of consumption. Psychologists can help

conceptualize and better understand psychosocial predictors of these driving forces. Psychologists can provide behavioral analyses of consumption by focusing on behaviors that contribute the most to climate change. Individual predictors of consumption include ability (e.g., income, skills) and motivation (e.g., connection to nature, perceptions of needs versus luxuries, core psychological needs) to engage in consumption. Contextual predictors of consumption, often mediated by individual level predictors, include the opportunities and constraints afforded by contexts (e.g., physical infrastructure, climate—driving characteristics of where a person lives) and motivators of consumption primed by contexts (e.g., social and cultural norms, consumerism, cultural and societal orientation toward time and nature).

Section 3: What are the psychosocial impacts of climate change?

Although they cannot be described with certainty given current research, the cumulative and interacting psychosocial effects of climate change are likely to be profound. Heat, extreme weather events, and increased competition for scarce environmental resources—compounded by preexisting inequalities and disproportionate impacts among groups and nations—will affect interpersonal and intergroup behavior and may result in increased stress and anxiety. Even in the absence of direct impacts, the perception and fear of climate change may threaten mental health. However, there is reason to believe that positive consequences are also possible—as people take collective responsibility for a shared problem.

Section 4: How do people adapt to and cope with perceived threat and unfolding impacts of climate change?

Adapting to and coping with climate change is an ongoing and ever-changing process that involves many intrapsychic processes that influence reactions to and preparations for adverse impacts of climate change, including chronic events and disasters. Psychological processes include sense making; causal and responsibility attributions for adverse climate change impacts; appraisals of impacts, resources, and possible coping responses; affective responses; and motivational processes related to needs for security, stability, coherence, and control. These processes are influenced by media representations of climate change

and formal and informal social discourse involving social construction, representation, amplification, and attenuation of climate change risk and its impacts. These processes reflect and motivate intrapsychic responses (e.g., denial, emotion management, problem solving) and individual and community behavioral responses. Individual and cultural variation influences all aspects of the process, providing context, worldviews, values, concerns, resilience, and vulnerability.

Section 5: Which psychological barriers limit climate change action?

Many psychological and social structural barriers stand in the way of behavioral changes that would help limit climate change. Many people are taking action in response to the risks of climate change, but many others are unaware of the problem, unsure of the facts or what to do, do not trust experts or believe their conclusions, think the problem is elsewhere, are fixed in their ways, believe that others should act, or believe that their actions will make no difference or are unimportant compared to those of others. They may be engaged in token actions or actions they believe are helpful but objectively are not. They have other worthy goals and aspirations that draw their time, effort, and resources, or they believe that solutions outside of human control will address the problem. Some or all of the structural barriers must be removed but this is not likely to be sufficient. Psychologists and other social scientists need to work on psychological barriers.

Section 6: How can psychologists assist in limiting climate change?

Psychology can better the understanding of the behaviors that drive climate change by building better behavioral models based on empirical analyses, providing deeper understanding of individual and household behavior, and applying evaluation research methods to efforts to develop and improve interventions. One of psychology's unique contributions is to the understanding of behavior at the individual level. It has already broadened understanding of the interactive roles of various personal and contextual factors in shaping environmentally significant behavior and in comprehending why people do and do not respond to the variety of intervention types, including persuasive messages, information, economic incentives, and new technologies. It can contribute more in this area by

helping to design more effective interventions. Psychology can also help by illuminating the psychological factors affecting behavioral change in organizations, as well as cultural and policy changes.

Topic-specific research recommendations follow from our illustrations of how psychologists can help address these questions. These recommendations come at the end of each section. In many cases, research recommendations involve testing the generalizability of information derived from related areas to the context of global climate change. In other cases, the research recommendations highlight places where more research is needed to fully understand particular topics highlighted within each section.

Policy Recommendations

A second aim of our report was to make policy recommendations for APA. We formulated the recommendations to assist and encourage psychologists' engagement with climate change issues as researchers, academics, practitioners, and students and to foster the development of national and international collaborations with other individuals and associations inside and outside of psychology. We also make recommendations to encourage APA to "walk the talk" by addressing our professional organization's contribution to the greenhouse gas emissions discussion and to be a role model for divisions within psychology.

The full set of policy recommendations can be found at <http://www.apa.org/science/climate-change/policy-recommendations.pdf>

Conclusion

We conclude by summarizing the value of a psychological approach to studying climate change and research contributions. We discuss the importance of being attuned to the diversity of human experience in climate change analyses because various understandings of and responses to climate change will be influenced by a person's worldview, culture, and social identities. We also discuss how APA ethical standards

provide motivation for psychologists' engagement in climate change issues and challenges. Finally, we recommend that psychologists adopt the following principles to maximize the value and use of psychological concepts and research for understanding and informing effective responses to climate change thereby maximizing their contribution to the science of climate change:

1. Use the shared language and concepts of the climate research community where possible and explain differences in use of language between this community and psychology;
2. Make connections to research and concepts from other social, engineering, and natural science fields;
3. Present psychological insights in terms of missing pieces in climate change analyses;
4. Present the contributions of psychology in relation to important challenges to climate change and climate response;
5. Prioritize issues and behaviors recognized as important climate change causes, consequences, or responses. Be cognizant of the possibility that psychological phenomena are context dependent;
6. Be explicit about whether psychological principles and best practices have been established in climate-relevant contexts;
7. Be explicit about whether psychological principles and best practices have been established in climate-relevant contexts; and
8. Be mindful of social disparities and ethical and justice issues that interface with climate change.

NOTES:



AMERICAN
PSYCHOLOGICAL
ASSOCIATION

750 First Street, NE
Washington, DC 20002-4242