

Climate Change
Society for the Study of Human Development
Joseph Fitzgerald

The membership of the Society for the Study of Human Development is best described as multidisciplinary scholars committed to methodologically sophisticated approaches to study contextual models of lifespan developmental science. A review of the society's flagship journal, *Research on Human Development* over the last decade, suggests that climate change has not been a topic of study by our society. In considering the request to provide a position statement, we primarily look forward and discuss a small number of topics to draw attention to the importance of attending to the intersections of context and human development.

Useful conceptual frameworks. Scientific information is seldom presented with any transparency for the world's population. The result is that the response has been a mixture of a moderate level of belief and vocal naysayers. A recent survey revealed that among United States science teachers a substantial proportion underestimated the consensus among climate scientists that human activity plays an important role in climate change. The low level of perceived risk is difficult to calculate with consequences located in the distant future. As a consequence, some of those who have been motivated to take action have been viewed as being outside the norm, which places yet another barrier to the development of the type of effective, persistent social movement needed to bring about change. We identify three points that reflect the context in which climate warming scientist operate.

First, some of the most important issues are politically charged and raise serious social justice concerns. The major human behavior contributing to global warming is increasing population size. More people need to be fed, warmed, and cared for, and produce disposable waste. Further, much of this increase occurs in the poorest countries in the world, whose governments often have pro-growth policies. Additionally, some are beset by political, religious, or military conflicts that have led to a mounting number of refugees. Managed population growth has proven extremely difficult, as witnessed by the now abandoned one-child policy in China.

Second, citizens of poor countries face obstacles to adopting clean technologies for heat and/or cooking. These obstacles include education for the proper use, maintenance, and modification of cultural practices.

Third, social scientists have not given global warming a great deal of attention. The majority of such research has been concerned with such topics as attitudes toward the environment. Much of the research is driven by the interests of social psychologists operating in the US, UK, EU, and Australia. This is not unusual. When scientists develop a tool, they employ it to study every social problem they encounter. Although journals have appeared over the past several decades that provide an outlet for research on environmental or ecological psychology, editorial policies have not driven researchers to contextually framed issues. As a consequence the majority of studies of perceptions of or beliefs about climate change in different age groups are isolated efforts rather than programmatic efforts.

Hot topics/excellent studies. In evaluating the potential contribution of SSHD members, we identified two areas of concern to social science climate scientists: 1) belief in the reality of climate change and 2) the assessment of risk levels. Recent non developmental models in the areas have touched upon themes of interest to developmental scientists: attachment, identity, cognitive development, gender roles, and aging. The aim was not to be exhaustive but illustrative.

Devine-Wright, Price, & Levinson (2015) reported on the role of attachment to place and beliefs concerning global warming in a nationally representative sample (Australia). Attachment to place can both promote and interfere with interventions. For example, a community may object to the installation of wind turbines because they create noise. Their study was designed to test a model in which attachment to multiple places (local and global) predicted beliefs about the reality of climate change and the origin of this change, and whether individual prejudices mediate the effects of place attachment. They also found that those who placed global attachment above local attachment expressed stronger belief in the proposition that climate change is occurring and that the change is related to human activity. This effect of attachment is mediated by individual differences: *lower* levels of Right Wing Authoritarianism (RWA) and Social Dominance are associated with stronger beliefs in human driven climate change.

This and similar studies raise a number of questions for developmental science. What are the origins of attachment to place? How amenable to change are such attachments? Does this construct and the measures have cross-cultural validity? What are the origins of the relationship between place attachment and RWA and social dominance?

If individuals come to believe that man-made climate change is taking place, how much risk does it pose to the individual, one's nation, and the global community. A comprehensive approach to perceived risk is represented in the work of van der Linden (2014). The object of this work was the development of the psychological determinants of the perceived risk of climate change. A sample of UK adults completed several instruments. Perceived risk of climate change was best represented by a two dimensional model: personal risk and societal risk. These two dimensions had overlapping predictors: a negative general affective response (unpleasant, unfavorable, negative) and the perceived strength of societal norms. Personal risk was uniquely predicted by personal experience with extreme weather events and egoistic values, while societal risk was uniquely predicted by knowledge of causes, impacts, and responses. Smith & Leiserowitz (2012) affirm the role of general affect as a central predictor.

These results help to guide an agenda for developmental research on perceived risk including the notion that a strong negative affective response, an understanding of norms, and specific knowledge about causes, consequences and risk are important. All of these aspects of human behavior undergo substantial development in middle-childhood and adolescence. The lifespan model is generally useful in this domain because it draws our attention to the distinctions among age change, age, differences, and cohort change. These distinctions will be important going forward.

(1) In the context of developmental status, how is information about personal experience encoded in stories, semantic information/knowledge, and cultural metaphors.

(2) Clarify the social and interpersonal contexts throughout development that are the central to individual identity and test strategies fostering pro-environment commitment.

(3) Developmental scientists should identify and test messages promoting an attachment to both the local and global environment. Such messages must be embedded in parent-child interactions, and childhood peers, classroom lessons, hands on environmental experiences, regular media, religious settings, and the platforms for political parties.

Individuals good at and willing to work on the topic

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