



In Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy
Jeffrey Swofford

Will defend his prospectus

**When the End of the World is Your Day Job: How Climate Change
Scientists Identify and Cope with Their Professional Work**

Abstract

Given most people spend a significant portion of their adult lives at work, work as a life domain is an important and salient source of meaning and self-definition for many individuals. Yet sometimes work is overwhelming, creating stressors which threaten this sense of self. This dissertation explores how climate change scientists function and cope in a 'wicked problem occupation', an occupation which asks them to engage in an overwhelming problem that as individuals they can never fully understand or solve. Anthropogenic climate change is a recognized multi-dimensional wicked sustainability problem that represents a major societal threat to both planetary and human health. Climate change scientists are uniquely knowledgeable of this wicked problem, thinking about it frequently and engaging it routinely as part of their occupation. Scientists also play critical roles in society as they generate ideas for solving problems, inform decision makers, and influence public discourse. This places climate change scientists at the frontier of climate change as a wicked sustainability problem. Because of this exposure and the unique attributes of climate change, climate change scientists may engage with distinctive stressors and coping strategies as part of their occupation.

This dissertation is guided by an overarching research question: How do experts identify and cope with a wicked problem occupation? To explore this research question across multiple studies, this dissertation leverages theoretical scholarship from two primary fields of study, occupational identity scholarship and stress and coping studies. The proposed research also utilizes a problem engagement framework for characterizing occupational engagement with wicked sustainability problems: descriptive and analytical engagement (Type A engagement) characterized by work which focuses on *understanding* and *defining* the causes and implications of the wicked problem, and responsive and transformative engagement

(Type B engagement) characterized by work which focuses on assessing and operationalizing courses of action for *responding* to and *solving* the problem. The nature and perception to which an expert engages in a wicked problem occupation across these two engagement spaces might influence how an expert identifies and copes with the stressors of their occupation. The primary method of qualitative inquiry for this doctoral research is a set semi-structured interviews with climate change scientists. A 4x4 participant group matrix is proposed as the basis for sampling research participants to include a diverse collection of expected viewpoints and beliefs across several proposed sampling characteristics, including problem engagement type. The participant group matrix uses the Intergovernmental Panel on Climate Change (IPCC) Working Group structure to aid in operationalizing the primary sampling characteristics. Thematic analysis of interview data will be performed using the framework method, in conjecture with complimentary secondary data analysis tools performed for each study. Results of the proposed research generate conceptual contributions for how individuals perceive stressors and engage in coping strategies when confronted consistently with a macro-social wicked problem such as climate change in their occupation. The dissertation advances sustainability, climate change, occupational identity, and social psychology scholarship while also contributing broader societal benefit for engaging with and adapting to the threat of global climate change.

Wednesday, January 11, 2017
9:00 a.m.
Wrigley Hall, Room 323

Faculty, students, and the general public are invited.

Supervisory Committee:

Dr. Sonja Klinsky (Chair), Arizona State University
Dr. Blake Ashforth (Member), Arizona State University
Dr. Maria Ojala (Member), Örebro University
Dr. Ronald Cohen (Member), Bennington College