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**Climate Change Discussion among Friends and Locus of Control relationship with Anxiety Discrepancy and Communication Efficacy Assessments**

**Ana Dubnjakovic**, University of South Carolina, United States, ana@mailbox.sc.edu

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# Introduction

Vast majority of the scientific community agrees that the climate is warming. Most recent data show that the last 16 years have been the warmest on record for the past 135 years (National Oceanic and Atmospheric Administration 2017). The consequences are wide ranging with recent reports pointing to as many as two billion people being displaced by the year 2100 due to coastal flooding (Cornell University 2017). Others face longer droughts accompanied by wildfires (Abatzoglou and Williams 2016, 1-2).

Unlike most natural disasters, climate change is an all-encompassing, slow moving global event that will eventually impact the entire planet. As such, it requires action on part of the entire global population. Interventions, however, require discussions to mobilize and organize sustained response. The current study investigates the mechanisms through which these discussions take place among friends through the lens of theory of motivated information management (TMIM) introduced by Afifi and Weiner (2004).

In addition to discussion mechanisms, not much is known about the interplay of personality characteristics and coping and emotional mechanisms when it comes to behavioral intentions to discuss information about climate change. Consequently, current study also investigates the relationship between locus of control construct and TMIM posited discrepancy anxiety and climate change efficacy assessments.

**Theoretical framework**

*Theory of Motivated Information Management*

TMIM grew out of Dale Brashers' uncertainty management theory, Austin Babrow's problematic integration theory, Albert Bandura's social cognitive theory and Lazarus' appraisal theory of emotions. It is one of the few communication theories that builds on the idea of uncertainty and includes cognitions and emotions in a single theoretical framework. Its stated purpose is to investigate interpersonal communications about topics which would be important enough to cause strong emotions (Afifi and Weiner 2004). To date, most TMIM studies have focused on health issues (e.g., Afifi and Weiner 2006; Wong 2014). Although Climate change differs from health topics in some respects, it also shares many of its important characteristics. For instance, like organ donation or HPV vaccination decisions, climate change poses existential risks likely to cause strong emotional response placing it squarely into the realm of TMIM investigations.

Briefly, in its first phase (i.e., interpretation), TMIM posits the information seeking process is motivated by uncertainty discrepancy (i.e., difference between how much information seeker desires to know and how much they already know) which gives rise to emotion. These emotions can be positive or negative, but since the theory allows for the possibility of information avoidance, most studies include anxiety about the discrepancy as the predominant emotional state. In the second phase (i.e., evaluation), anxiety causes individuals to make outcome assessments (i.e., risks and/or rewards associated with obtaining/avoiding information), and impacts their efficacy assessments (i.e., ability to find and cope with the information and/or consequences of information avoidance). TMIM allows for three distinct efficacy assessments: 1) communication efficacy (i.e., perceived ability to obtain desired information), 2) coping efficacy (i.e., perceived ability to cope with the emotional impact from obtained information) and 3) target efficacy (i.e., trust in honesty and ability of others to provide the desired information). Finally, during the decision stage, individuals enact information seeking or avoidance strategies.

*Locus of control*

Locus of control measures the amount of personal control individuals believe they have over their circumstances (Rotter 1966). Scale ranges from internal (i.e., individuals believe they control their destiny) to external locus of control (i.e., something outside self controls destiny). Since Rotter (1966) introduced the construct, Levenson (1981) showed that the external locus of control is multidimensional and includes powerful others (i.e., destiny controlled by deity and/or elites) and chance (i.e., destiny controlled by chance) constructs.

Decades of research in psychology show human ability to cope with pain and anxiety is significantly impacted by the amount of perceived control over their circumstances (Lefcourt 1982). Recent research about health habits also indicates individuals with internal locus of control tend to be more willing to stay informed about the state of their health (Bennett, Brooke L. et. al. 2017). Climate change poses similar existential risks and might, by extension, motivate individuals with internal locus of control to engage in information seeking to a greater extent than those closer to the external locus of control orientation.

**Research questions**

R1: Which TMIM variables significantly predict individuals’ intentions to discuss climate change impact on the environment with their friends?

R2: How do Locus of Control orientations (i.e., internal, powerful others and chance) relate to TMIM anxiety about discrepancy?

R3: How do Locus of Control orientations relate to TMIM efficacy assessment variables?

R4: Is the TMIM model different for individuals with internal and those with external Locus of Control orientations?

**Methodology**

*Data collection instruments*

Data will be collected in February 2018 at a large public university in the United States via online data collection tool Qualtrics. Items representing TMIM variables were adapted from Afifi et al. (2006). Locus of Control construct will be measured using Levenson’s (1981) IPC scale. Both scales have historically established satisfactory levels of reliability and validity. Responses will be measured on a 7 point Likert Scale ranging from strongly disagree to strongly agree.

*Procedures*

Prior to model building all items will be screened for univariate normality. Following subscales assessment for internal consistency reliability, items representing TMIM constructs will be tested via structural equation modeling (SEM) procedure using LISREL software package for the entire sample. Correlation tests will be conducted to assess Locus of Control constructs’ relationship with anxiety about discrepancy and efficacy assessments variables. Finally, sample will be separated according to locus of control orientation (i.e., internal and external) and both will be tested individually for TMIM model fit using SEM procedure.

**Preliminary Discussion & Conclusions**

Previous studies in the health information realm have validated the TMIM framework and the theory holds great promise as an explanatory mechanism for climate change information seeking.

The main goal of the current study is to examine mechanisms predicting the likelihood students will discuss climate change with friends. The study also examines how locus of control relates to efficacy judgements and affective response to discrepancy between how much they know and how much they desire to know about climate change.

Evidence in support of TMIM in this context would provide a detailed picture of the extent to which cognitions and affect interplay as they influence information seeking decisions. Subsequently, interventions could be designed to reduce discrepancy anxiety and consequently improve both outcome expectancy and efficacy leading toward increase in climate change information seeking likelihood.

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