

論文の内容の要旨

Dissertation Abstract

論文題目

Dissertation Title

PSYCHOLOGICAL AND SOCIO-CULTURAL FACTORS INFLUENCING
PUBLIC PERCEPTION AND ENGAGEMENT WITH CLIMATE CHANGE:
THAILAND AS A CASE STUDY

(気候変動に対する認識および積極的関わりに影響を与える社会
心理学的・社会文化的要因：タイ国を事例として)

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Climate change caused by anthropogenic greenhouse gas emissions is acknowledged as one of the greatest threats to global sustainability in the 21st century. Extreme weather and climate events have become more frequent and violent over time. In 2011, evidently, Thailand experienced one of its worst floods in half a century. But despite mounting evidence of the dangers posed by climate variability and change, the level of public understanding and engagement is often minimal. Often times, the belief in and formation of environmentally friendly behavior is influenced by a multi-faceted and dynamic system of mediating factors including individual characteristics, personal values, and social influences. The problem however, is that the contribution of empirical climate change research in the area of sociology is relatively weak. In particular, in Thailand there have been limited studies conducted on local perceptions of climate change, and on citizens' intentions to respond to climate change issues. Is this because the role of affect and social influence is often ignored by the scientific point of view?

A core aim of this research is to explore the relationship between psychological and socio-cultural factors influencing the perceptions of and how Thai citizens deal with climate change. The specific objectives are: i) understand how climate change is conceptualized by Thai citizens, ii) examine the influence of psychological and socio-cultural factors concerning the perceptions of climate change by Thai citizens, and iii) investigate the possible barriers preventing mitigation and adaptation actions in response to climate change. It drew upon mixed methods from both qualitative and quantitative approaches. Literature reviews, on-site observation,

interviews, and questionnaire surveys were conducted. Following this; correlation, regression, and cluster analysis were further performed. Three survey cases were explored as follows:

To begin with, questionnaires were administered to 253 selected households in village 4 of the Nongbuasala sub district, Nakhon Ratchasima province. The survey results reveal that the majority of respondents tend to associate climate change with local environmental problems in their community and believe that climate change is most likely to be caused by deforestation and industrial emissions rather than fossil fuel burning. In terms of perceptions, in this study, there are two different types of evaluation: Category 1 (perception score was calculated by considering both correct answers together with common points of confusion about climate change), and Category 2 (the score was calculated by considering only the perception of climate change definition and its primary cause as *any long- term change in temperature and weather patterns over time* and *fossil fuel burning*, respectively). The following results were obtained:

Category 1: Significant positive correlations were found between climate change perceptions and five affective components of awareness on climate change in general and mitigation, belief in human causes and the feeling of worry, and self-efficacy ($0.141 \leq r \leq 0.538$). Conversely, two components of cognitive dissonance ($r = -0.435$) and belief in fatalism in a sense of powerlessness ($r = -0.190$) were found to be significantly negatively correlated with the perceptions of climate change. Using regression analysis, seven components of awareness in general, belief in reality of climate change and human causes, fatalism, worry, helplessness, and cognitive dissonance could significantly predict the perceptions of climate change (accounting for 41.6% of the variance). Further, through social processes, sixteen contextual components of attention and conversation norms on climate change and environmental issues, social experiences, climate risks distance (to Bangkokians and their community), socialization agents (friends, family, community leaders, associations, temple, experts, TV, radio, newspapers, and Internet) were significantly positively correlated with the perception of climate change ($0.132 \leq r \leq 0.552$). Only social support by central government was found to be significantly negatively correlated with climate change perception, with $r = -0.043$. Multiple regression analysis showed that, among

twenty-four factors, only eight components, namely: attention norm on environmental issue, conversation on climate change, perceptions of climate risks to their family and community, socialization agents such as friends, associations, industry, and newspapers can significantly predict the perception of climate change with 62.9% of the variance.

Category 2: Among twelve psychological factors, using multiple regression analysis, four components of awareness on climate change in general, fatalistic thinking, the feelings of fear and worry can significantly predict the perception of climate change as ‘*any long-term change in temperature and weather patterns over time*’, with 24.1% of the variance. Meanwhile, only two components of awareness in mitigation and the feeling of helplessness could significantly predict the perception of the primary cause of climate change as ‘*fossil fuel burning*’, with 14.1% of the variance. As expressed through social processes, among twenty-four contextual factors, only television can significantly predict the perception of climate change as ‘*any long-term change in temperature and weather patterns over time*’, with 21.1% of the variance. However, none of these factors has been significantly associated with the perception of the primary cause of climate change as ‘*fossil fuel burning*’.

Apart from these aspects, in terms of engagement, there was a significant positive correlation between the respondents’ perception of climate change and the intention to modify their own behavior for climate change ($r = 0.139$). Among five mitigation actions, only the intention to make afforestation ($r = 0.262$) and reduce plastic consumption ($r = 0.325$) bore significantly positive correlation with climate change perceptions. Within the agricultural group of respondents ($n = 70$), the survey results also illustrate the problem that local farmers have more difficulty understanding what their kind of agricultural practices contribute to climate change. Most of them only perceive that the reduction of open burning was considered to be one of the most important actions in response to mitigating climate vagaries. Some mitigation practices such as household energy saving, waste recycling, avoiding bare fallow land can be enacted without an understanding of climate change (e.g., if financially motivated). Altogether, cluster analysis was able to classify the respondents into two distinct groups, i) those who are less likely to perceive

and make sacrifices to change their behavior in response to climate change (Cluster 1), and ii) those who are more likely to perceive and show more willingness to engage with the problem (Cluster 2). These two groups are different in terms of their own belief in fatalism, cognitive dissonance, the acceptance of social support, awareness, concern, norms of attention and conversation on environmental and climate change issues, climate risks perception and interconnection among the agents of socialization.

In the latter case, an online questionnaire was electronically distributed to residents potentially affected by flooding, especially in Bangkok's metropolitan region (n=437). The aim of this survey was to investigate people's perception of the event of flooding and their interpretation of risk communications in Thailand's flood crisis of 2011. According to the Protection Motivation Theory, survey results indicate that Thai residents usually have both cognitive and affective biases (e.g., over-or underestimate risk, fatalism, cognitive dissonance) in flood risk perceptions. These biases might occur because people have difficulty evaluating flood probability and may lack adequate information. Both general failure of preventive action and poor risk communication have been reported. Face-to-face interviews were finally conducted to investigate the possible barriers that limit climate change mitigation and adaptation. People who lived in urban areas of Thailand (e.g., Bangkok and Pathum Thani provinces) were primarily targeted (n= 100). In line with the above case studies, the lack of knowledge on adaptation and mitigation, affective biases, and insufficient social support can be barriers to engaging in proactive responses.

To summarize, building upon this empirical study, the relationship between psychological and socio-cultural factors influencing public perception and engagement was statistically examined. Understanding how these relationships behave is important from a management perspective, for addressing a wide range of issues such as determining the effectiveness of various approaches designed to enhance their perception and engagement and in communicating with citizens about the importance of climate change as a public issue.