

Religious Belief, Disaster Awareness, and Disaster Response: Findings and Implication for Disaster Risk Reduction

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Keywords: Religious Belief, Disaster Awareness, Public Disaster Response, Disaster Risk Reduction

Abstract: Through reviewing the literature about religion belief and natural disaster, this paper argues that religious belief is an important contextual and identity factor in how religious persons understand, interpret, and respond to natural disasters. Religious belief can impact the public's disaster response in both helpful and harmful ways. Based on these findings summarized and synthesized in this study, the implication for disaster risk reduction in religious communities is also discussed.

Introduction

Within the context of increasing attention to culture in disaster research, academics gain more insight into the role of religion and/or religious belief in the context of natural disasters [1, 2]. This paper reviews and synthesizes a wide range of relevant studies, all of which deal in some way with the religious-related issues in the context of natural disasters. This paper aims to take stock of what is known and discuss its implication for disaster risk reduction.

Methodology

This study is based on thematic analysis method. It includes papers from broad range of studies related to religious belief and natural disasters. The article collection involved utilization of several databases including Web of Science, Google Scholar, Science Direct, Taylor & Francis, and Elsevier. In the meantime, this study also used similar terms via China search engines, such as CNKI to find studies published in Chinese but with English abstract.

Thematic Analysis: the Impacts of Religious Belief

Thematic analysis of these studies [1-22] shows that religious belief is an important contextual and identity factor in how religious persons understand, interpret, and respond to natural disasters (Fig 1). As Fig 1 shows that religious belief may impact believers' choice of particular interpretation of natural hazards (i.e., religious attribution). To some extent, this determines believers' risk perception, perception of individual and collective efficacy, outcome expectancy of response. Believers use their own thinking-ways to construct natural hazards and/or disasters into their belief system. It constrains or promotes their agencies to respond to natural disasters and affects public emotions in a disaster situation.

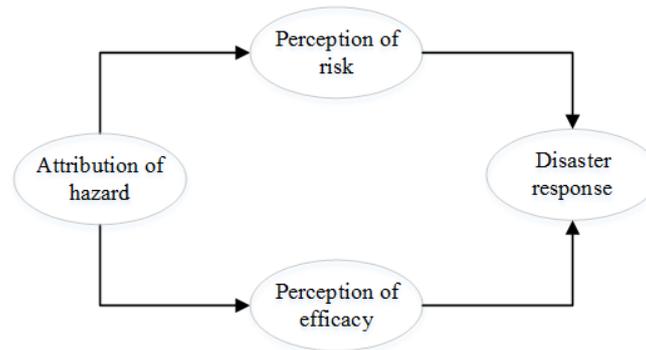


Fig 1 A summary of impact pathway from religious belief to public disaster response.

The main findings are summarized and synthesized as follows:

Natural hazards and disasters thought to be divine retribution seems like a common phenomenon in religious communities cross religious denominations [3-9], even in communities where individuals are well aware of alternative scientific explanations [10-13].

Religious attribution may result in low level of risk perception [2, 4, 8]. An overview of relevant literature shows that usually, religious believers' lower level perception risk (compared to non-religious counterparts) derived from at least three kinds of beliefs: the belief that God will protect them [4, 8, 13], the belief that potential loss are under the control of divine forces [14], and the belief that natural hazards just are manifestations of the mundane and routine activities of spirits [15].

Religious attribution may result in passive response. Schipper [4] concluded two thinking-ways were used by inhabitants in Bajo Lempa (El Salvador) to justify their negative attitudes and behaviors to floods and droughts. One is that nothing can be done because natural hazards are god's will; the other is that take actions to respond natural hazards might influence the actual event due to natural hazards are supernatural forces. The similar "logics" were also found to be used by some less-educated inhabitants in Agadir, Morocco [8] and several people from communities along the Volta River Volta River, Ghana [12].

Religious attribution can sometime serve as a cultural and psychological adaptation to disasters for disaster survivors. Several anthropological and geographical studies stated that for disaster-affected community, spirituality and belief can offer answers to questions such as why natural hazards occur, in which way they occur, and what are the meanings of injury and death [7, 15, 16]. It is vital a lot for the people who lack the sufficient capabilities and resources to alleviate, mitigate or eliminate living and psychological distresses in disaster situation [9, 16, 17].

According to the religious coping dichotomy (i.e., positive and negative) [18, 19], coping strategies based on divine retribution fall into the negative category, and positive coping strategies attempts to seek spiritual support. Several studies indicated that negative religious attribution was related to poor mental health after disasters, and positive religious attribution was associated with better psychological health and less distress in disaster situations [20, 21].

People can combine and negotiate manifold co-existing coping strategies (e.g., worship, prayer, and non-religious actions) in an enduring entanglement of secular, scientific, and religious interpretations of natural hazards/disasters [11]. This finding is also supported by [6, 13, 22]. So, fatalism which is often associated with passivity and apathy in western connotation should be reexamined in the context of some developing countries [17].

Implication for Disaster Risk Reduction

Religious belief is an important contextual and identity factor in how religious persons understand, interpret, and respond to natural disasters. Both helpful and harmful impacts of religious belief could have on the public's response to natural disaster were indicated. Generally, religious belief can become main causes for the public's vulnerability to natural disasters, while in some cases it can

foster and promote resilience. These findings matter a great deal for disaster risk reduction. Generally, a better disaster risk reduction is definitely not transforming existing religious belief systems or wish people's religious belief system go away, but to incorporate them in the arena of disaster risk reduction.

It is important for DRR policymakers and practitioners to value the practical effects of religious belief. For certain cultural contexts, negative religious attributions drives individual's fatalistic attitude, and become obstacles for disaster risk reduction. However, current academic stances also highlight that negative religious attributions to some extent could also be regarded as a "cultural and psychological adaptation to disasters". Moreover, the findings that the "secular and religious interpretations of natural hazards and disasters" co-existing phenomenon should attract enough attention. In some sense, it means the possibility that the close combination of science-based and religious-oriented disaster education strategies.

For the need for cultural-acceptable and effective disaster risk reduction strategy, it is warranted that systematically analyze and explore both the negative and positive impacts of religious belief, then capitalize on the positive impacts and make effort to moderate them where they may be obstacles.

Acknowledgement

This research was supported by the projects of the National Natural Science Foundation of China (Grant No. 40971274; 41601567). It was also supported by the project (its National Natural Science Foundation of China Grant No. is 41661134013) and the project "Research on post-earthquake comprehensive relief strategies for large and medium-sized cities" (No. 2016QJGJ15).

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