

Creating hazard resilient communities: understanding how people make meaning of hazard information and now this influences preparedness

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Hazard information and creating resilient communities

Although having good information about hazards is important, a number of studies provide evidence that the dissemination of information as a sole strategy will not be a strong influence on whether people take action and become more prepared (e.g. Ballantyne et al., 2000; Johnston et al., 1999; Lindell & Whitney, 2000; McClure et al., 1999; Mulilis et al., 1990; Paton et al. 2000; Paton et al., 2005; Paton et al., 2006; Ronan et al., 1999). Rather, motivating people to form intentions to prepare (and having them follow this up with actual preparation) is a complex process that comes about only as the result of interaction between a number of key factors.

Research has shown that a number of community and individual attributes can be used as indicators of resilience. These indicators include outcome expectancy, action coping, articulation of problems, community participation, empowerment, trust and self-efficacy (Paton et al., 2006). A model of community resilience which incorporates these attributes is currently under development (Figure 1). This model seeks to outline the relationships between the different influences, and to make suggestions for increasing community preparedness¹.

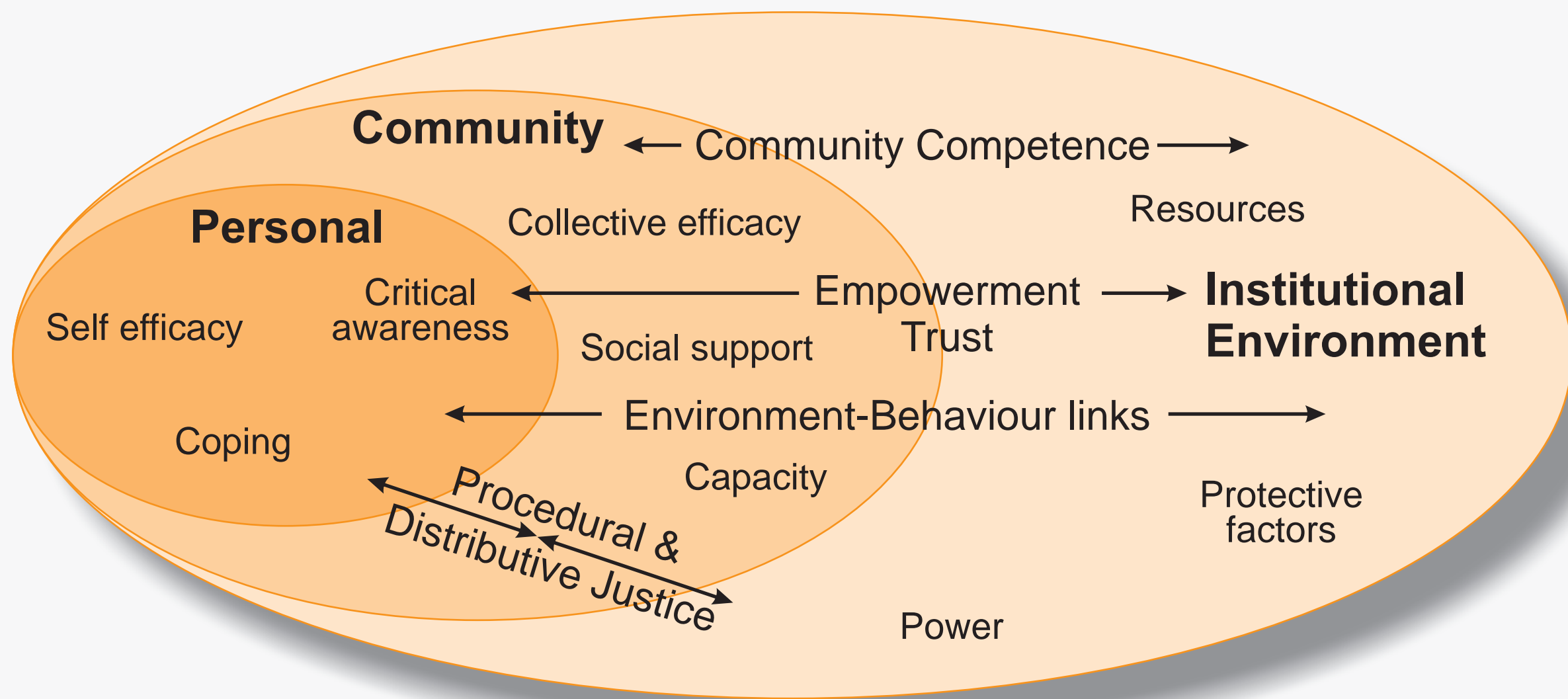


Figure 1. A model of community resilience, showing selected resources at each level and selected transactional resources (after Paton, 2006).

To date, as part of the modelling process, research has focussed on identifying predictors and defining the linkages between them to construct a model. However, there has been very little in depth study on the processes that influence specifically how individual, community and societal factors interact to determine how people render hazard information meaningful, and how this interactive process translates into preparedness actions. Research over the following three years will investigate this issue.



Figure 2. Community clean-up and recovery after the 1999 Queenstown floods, New Zealand. (photo: Otago Daily Times)



Figure 3. Items tossed from shelves during the 1987 Edgecumbe earthquake, New Zealand. (photo courtesy of Adrian Muller)

Research methodology

Following a literature review, and the selection of a conceptual methodology to work within, three community case studies will be chosen. The case studies will be carefully selected to ensure that the context of the environment (including key parameters) is broadly comparable. For example, one criterion of the selection of geographic locations will be the degree to which the hazardscape affords comparable levels of risk for citizens. Locations will also be selected to ensure that risk management is undertaken within the context of similar legislature/regulatory frameworks and implemented through similar civic institutions.

Approximately 20 unstructured interviews will be undertaken with individuals in each community to explore how people make meaning of hazard information, and the factors behind why these people do, or do not, prepare. Communities will also be monitored over time to explore the effects of any subsequent education programmes and engagement strategies.



Figure 4. Residents collecting water after the Edgecumbe earthquake. Having pre-prepared stocks of water could reduce demand and assist with resilience after an event. (photo courtesy of Adrian Muller)

Application of this research

The ultimate aim of this research is to enhance community resilience to natural hazards. With a better comprehension of the influences and mechanisms that enhance sustained household and community preparation, we hope to contribute to the creation of effective policies for hazard management at central government and local civil defence emergency management group level.

¹The model is being developed as a collaborative effort, with input from Massey University, University of Tasmania, Central Queensland University, GNS Science, FRST, EQC, other research institutes and universities, hazard practitioners, stakeholders and communities.

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