

whose primary interests lie in daily interactions with children, families and communities' (p. 3) will undoubtedly find this text of particular interest.

The editors have done an effective job in compiling a highly useful text that innovates as it educates. It is a book that is international in scope and is inclusive of contributions that embrace diverse theoretical frames and a range of methodological approaches, thereby setting the scene for exploring further ways forward and opening a transnational dialogue in ECEfS that is both provocative and exciting.

Reviewer Biography

Leissa Kelly is a lecturer at Deakin University. She has been involved in environmental education and science research and practice, and in community and professional education and training for almost 30 years. Until now, her research has primarily focused on environmental education (particularly in regard to the marine environment); teaching and learning in higher education; how the environment is perceived and understood; how science is communicated; and the process of transition. She has recently completed a PhD in Marine Education, working with teachers and educators in the marine environment.

Disasters and Social Resilience: A Bioecological Approach

Helen J. Boon, Alison Cottrell, and David King Routledge Explorations in Environmental Studies, 2016
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Reviewed by Chris Harle, Australian Association of Social Workers, Sydney, Australia

Disasters and Social Resilience: A Bioecological Approach proposes a theoretical framework and method for the study and research of disaster preparedness in individuals and communities. The title of this book immediately provoked my interest due to the promise of a model with potential to inform disaster resilience support programs. So it was with great interest that I delved into the book, authored by Helen J. Boon, Alison Cottrell, and David King. The authors are variously situated within the College of Arts, Society and Education (Boon) and the College of Marine and Environmental Sciences (Cottrell and King) of James Cook University in Queensland, Australia. As I work within the field of sustainability, including disaster preparedness, with a team of various academic backgrounds, I was encouraged to see the interdisciplinary background of the authors. Following the theme of this interconnectedness is the idea that in the context of a world increasingly threatened by the effects of climate change and subsequent increase in natural disasters, comprehensive modelling is required to assess the preparedness of individuals, communities, organisations, and governing bodies. There is limited ability to currently assess, measure, and monitor how each of these groups impact upon each other in regard to their ability to be resilient in the face of natural

disasters. According to the authors, this book ‘fills this gap by introducing to the field of disaster studies a fresh methodology and a model for examining and measuring impacts and responses to disasters’ (Foreword).

The chosen theoretical framework is Bronfenbrenner’s theory of child development. Bronfenbrenner was a Russian-born American developmental psychologist who developed a biocological system’s theory on child development (p. 9). Bronfenbrenner is more of a nurture than nature theorist, if you will, where nurture is generally taken as the influence of external factors on child development, such as the product of exposure, experience and learning on an individual, and nature is the prewiring of the brain as influenced by genetic inheritance and other biological factors (McLeod, 2007). Bronfenbrenner proposed a model examining the points of influence of those external factors. It is through this lens that the authors seek to provide a model for the examination of social resilience in disasters.

The book contains 10 chapters, with the introduction setting it in the context of climate change and the expected rise in severity and number of natural disasters, and considers the terms ‘disaster risk reduction’ and ‘resilience’. The authors come to the conclusion that there is no set definition of ‘resilience’; however, they note that most definitions refer to resilience as an ability to return to prestressor functioning or shift to adaptive functioning after a stressful episode. The challenges in defining resilience are mirrored by the challenges in measuring and monitoring it. To this end, an introduction and explanation of Bronfenbrenner’s theory is provided, with Boon noting ‘not only is this theory useful at the level of the individual but the same lens can also be applied to whole communities to examine their vulnerability and assess areas of resilience’ (p. 15).

Bronfenbrenner’s theory describes the ecological systems in which people find themselves facing disasters as comprising the following categories (p. 12):

- Setting (a place where people have face-to-face interactions; i.e., a home or school);
- Microsystem (pattern of activities, roles, and interpersonal relations experienced within a setting; i.e., family relationships);
- Mesosystem (interrelations between two or more settings such as between home and school);
- Exosystem (a setting not involving the individual but that can affect the individual in some way such as the Department of Education);
- Macrosystem (culture, belief systems, or ideology); and
- Chronosystem (changes over time that affect a person).

Chapter 2 provides a rationale for the use of the biocological systems theory emphasising the interconnectedness of individuals situated within communities and the interrelations between them. Chapter 3 seeks to test the biocological theory as a theoretical lens by investigating the case studies of two disaster-affected towns in Australia and their levels of resilience to disaster. The chosen towns were Beechworth, Victoria, impacted by bushfire in 2009 and Ingham, Queensland, impacted by floods in 2009. The aim was to link individual-level resilience with community-level factors, with the key hypothesis being that individuals who remained in the disaster-affected communities were more likely to be resilient to disaster. A mixed methodology study was undertaken that involved a first step of focus group interviews and then a survey-based phase with response data coded into Bronfenbrenner’s categories. The research resulted in a number of implications that supported the hypothesis, such as the attribute of adaptability and its positive influence on resilience. Adaptability can be promoted through activities that support social cohesion.

Chapter 4 focuses on current knowledge about individuals’ resilience to disaster and Chapter 5, in its study of the microsystem, examines the influence of the individual’s

social and physical milieu. There is also a focus on children and adolescents' disaster resilience that may be of interest to those reading this journal. Chapters 6 to 9 expand respectively on the mesosystem, exosystem, macrosystem, and chronosystem and their roles in disaster resilience in communities. All the chapters make their points through the use of sample studies, case studies, and other relevant research. The book concludes with 19 recommendations for policy and emergency management, and specifically identifies the absolute requirement for integration within the sphere of disaster risk reduction and resilience building.

This book is clearly aimed at researchers and policy makers and I believe it can also be used by practitioners in promoting disaster preparedness by providing a useful model through which to view communities and their capacity to respond to and recover from natural disasters. The chapters are arranged in such a way as to step the reader through the context and framework of the model and how it can be applied. I particularly found Chapter 3, with its research focus on Australian case studies and the application of the theory, to be of interest. It did raise questions for me though, in relation to the consistency of the authors' application of Bronfenbrenner's categorisation system. For instance, Table 3.1 (p. 45) categorises Beechworth's Indigo Shire Council into the macrosystem whereas Ingham's Hinchinbrook Shire Council is categorised into the exosystem. I found the flow of the book from chapter to chapter varied and the use of technical jargon more prominent in some chapters. I put this down to the different authoring of the chapters, and of course, the influence of my own background in reading the book.

A number of the chapters also consider and note the importance of processes that increase social capital, or the levels of trust and interconnectedness between individuals, systems, and groups within a community. I was keen to note how crucial this can be in building community resilience to disasters, possibly even more so than costly efforts to improve infrastructure, as this validates my own understanding of increasing resilience to disaster preparedness. There are multitudes of references to national and international disaster-related events such as the U.S.'s Hurricane Katrina, which allow the reader to contextualise the theoretical framework. The reader is also led to understand that resilience is not an internal character trait but is acquired over time, although it can be influenced by an individual's perceptions.

Overall, I found this book provided a framework with which to consider disaster resilience in the local context. It provided me with ideas and a method with which to assess, monitor, and evaluate programs and activities that are designed to increase disaster preparedness in my local government area. The book introduces the concept of Bronfenbrenner's bioecological theory and provides the context of why this is such a useful lens to determine disaster resilience in communities. The book attempts to demonstrate how it can be applied, through two Australian case studies, and then explores the individual components in some detail. This framework allows the reader to understand different systems, how they are interconnected and influence each other, and how they need to be assessed on their own merits to develop the whole story of disaster resilience in a community. I recommend this book for anyone who wants to apply rigour to planning, monitoring, and evaluating their disaster resilience programs.

Reference

McLeod, S.A. (2007). *Nature nurture in psychology*. Retrieved from www.simplypsychology.org/naturevsnurture.html

Reviewer Biography

Chris Harle is the Sustainability Engagement Coordinator for Lake Macquarie City Council, focusing on engaging individuals and communities in all aspects of sustainability, including in increasing disaster preparedness and resilience. She has a social work background, previously working in a diverse range of social work roles in community organisations and a local health district setting. After obtaining a Master of Public Health (Health Promotion) she became a Health Service Manager, managing a community health service in a local health district for 4 years prior to joining local government. Chris is a member of the Australian Association of Social Workers.

Social Learning Towards a Sustainable World: Principles, Perspectives and Praxis

Arjen E. J. Wals (Editor) Wageningen Academic Publishers, The Netherlands, 2007
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Reviewed by Annette Gough, School of Education, RMIT University, Melbourne, Australia

Social Learning Towards a Sustainable World: Principles, Perspectives and Praxis was an ambitious project. Arjen Wals, now UNESCO Chair of Social Learning and Sustainable Development at Wageningen University, brought together numerous well-known writers in environmental education in the late 20th and early 21st century (Stephen Sterling, Daniella Tilbury, David Selby, and Paul Hart) with some lesser known Europeans and North Americans, some (then) emerging scholars, and a few Australians (Richard Bawden, Valerie Brown, Robert Dyball and Meg Keen), then topped and tailed the volume with a foreword by Fritjof Capra and afterword by Michael W. Apple. Across the 27 well-written chapters, the authors confront some big issues in environmental sustainability education across principles, perspectives, and praxis, in three parts. These three parts are introduced by Wals and Tore van der Leij and epilogued by Wals. The focus of the book is an exploration of social learning from the perspective of a range of fields that are challenged by sustainability, including: organisational learning, environmental management and corporate social responsibility; multi-stakeholder governance; education, learning and educational psychology; multiple land-use and integrated rural development; and consumerism and critical consumer education. With these multiple foci there is almost something for anyone in this edited collection.

Importantly for scholarship of this nature, Lowan-Trudeau positions himself for his readers, sharing his background as a Métis-Canadian of mixed Algonquian and European ancestry. Although raised in a city, he acknowledges living a childhood characterised by a 'constant métissage of urban and rural environments' (p. 7) and outlines that his professional background includes vast experience as an outdoor and environmental educator. With this positioning comes the adoption of a reflexive posture throughout his research journeys. Also important, particularly for an international