Chapter 8
Relational Dynamics: The Flood Solution – Sustainable Energy and Rural Tourism

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ABSTRACT
The effects of global warming are becoming apparent throughout the world. Europe has begun to experience more severe winters and increased rain (Steffen, 2011). Massive flooding in South Eastern Europe has devastated communities and repeatedly strains the economy of these regions resulting in mass trauma to the residents of multiple countries (Sito-Sucic & Djurica, 2014). Intergenerational effects of trauma (Bathory & Celik, 2014; Kaitz, Levy, Ebstein, Farah, & Mankuta, 2009) have been noted to be an increasing world-wide concern. These traumatic effects are not only psychologically based but result in structural and functional changes within the brain and body (D. Bathory, 2012; D. S. Bathory, 2013a, 2013b; van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005). This chapter explores the application of decision making and Relational Dynamics to mass victims of floods by creating healing sites of sustainable energy and rural tourism to assist mass victims of natural disaster flooding.

OVERVIEW
Psychological trauma occurs without regard to age, race, gender, ethnicity socio-economic status, or setting. From common place events such as car accidents and natural disasters such as floods, life threatening events are rampant throughout the world (De Zulueta, 2007). Massive floods and other natural disasters are on the rise due to global warming and the devastation, both to people and property are becoming more substantial. Seventy-two people died in Hurricane Sandy in the United States in October of 2012 (Sharp, 2012) and there was an estimated $70 billion in damage as compared to Hurricane Katrina that resulted in over $100 billion in damages and 1,836 deaths in 2005 (Stone, 2012). In 2014, South Eastern Europe and the Balkans were devastated with the worst floods in over 120 years. Over 1 million people were affected when three months of normal rainfall fell in a matter of hours, 62 people died in these flood waters (Sito-Sucic & Djurica, 2014) and there was an estimated €1.55 billion worth of damage. DOI: 10.4018/978-1-5225-1826-6.ch008

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The end result, is that floods kill, they leave behind economic fallout that takes years to replace and repair, from debris removal, to reconstruction of homes, buildings, and infrastructure, and rebuilding families lives that have been washed away.

Relational Dynamics is a non-linear theory of how we interact with others and things. At the base of Relational Dynamics, is the ability to move non-cooperative relationships into those of cooperation. In the case of floods and disasters, Relational Dynamics provides a means for people to heal from the devastation and loss and form positive interactions with weather and water again. Relational Dynamics was generated from theories within mathematics (chaos (Gleick, 1987) and game theories (Nash, 1950)) and psychology (personality, social, cultural, neurobiological and trauma) (Freud, 1905 (1962)) (Jung, 1916 (reprinted 2002)) (Maslow, 1943) (Erkison, 1963) (Frankel, 1963). Within Behavioral Economics, Relational Dynamics provides a means of exploring both the aspects of personal and monetary losses and ways to repair and rebuild from disasters, as well as understand basic interactions and cooperation.

Economics has relied on three principles related to behavior rationality, willpower and selfishness. These principles have guided economics into a static corner of attempting to predict outcomes in the all too human world of diversity. In 1955, Herbert Simon proposed unlimited information processing capabilities and called it “bounded rationality” and applied this concept to decision making (Simon, 1955; Simon, 1959). Kahneman et al. has explored the human factor or departures from rational choice within judgements, beliefs and decision making (Kahneman & Tversky, 1974; Kahneman & Tversky, 1979; Kahneman, Slovic, & Tversky, 1982; Kahneman, 2003).

Kahneman said, Economists often criticize psychological research for its propensity to generate lists of errors and biases, and for its failure to offer a coherent alternative to the rational-agent model. This complaint is only partly justified. Psychological theories of intuitive thinking cannot match the elegance and precision of formal normative models of beliefs and choice, but this is just another way of saying that rational models are just psychologically unrealistic. Furthermore, the alternative to simple and precise models is not chaos. Psychology offers integrated concepts and mid level generalizations, which gain credibility from their ability to explain ostensibly different phenomena in diverse domains. (Kahneman, 2003, p.1449)

Psychological theory and these behavioral economic models still do not provide a way in which human behavior that is seldom purely rational, can be explained. Models do not have to be linear in mathematics, economics or psychology, yet the majority are linearly based. Relying on cause and effect, sequential logic, and supply and demand does not provide an accurate description of the interaction of humans with each other, or with objects. Relational Dynamics provides a novel approach to understanding the interplay of the drives for dominance and acceptance in understanding the process that occurs when two or more players attempt to interact. Within in this dynamic, there is the ability to form cooperative interactions from what was once non-cooperative, as well as destroy cooperation, or create chaos and misunderstanding. Relational Dynamics is useful for managers and others within the field of behavioral economics to understand how to create cooperation with individuals or groups (Bathory D., 2015a), assist with helping to heal painful experiences such as psychological trauma from disasters (Bathory D. S., 2013; Bathory D. S., 2013a) and understand human interactions with objects (as it can be applied to advertising and marketing, human resources, employment, and customer dispute/satisfaction). It has been applied in Art in finding ways for artist to convey important messages through their work in sculptures such as monuments. (Bathory & Lajbenšperger, 2014; Bathory D. S., 2013). Relational Dynamics has