Chapter 61
Economics and Practical Applications for Applied Trauma Theory: 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. Intergenerational effects of trauma (Kaitz, Levy, Ebstein, Faraone, & 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 (van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005; Bathory, 2011; Bathory, 2012a; Bathory, 2012b). This paper explores the application of sustainable energy and rural tourism to assist mass victims of natural disaster flooding. The author provides the cultural precedents for marketing, as well as the psychoneurobiological rationale and application for an intervention to a large non-clinical population.

OVERVIEW
Psychological trauma occurs without regard to age, race, gender, ethnicity socio-economic status, and 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). Applications of neuropsychology are primarily in clinical and academic settings, such as assessment and treatment and brain function mapping. There have been rare exceptions in applying neuropsychology within business- the conciliation being subliminal messages and images. Applied Trauma
Theory combines psychoneurobiological trauma theory within cultural dynamics and has demonstrated applications for promoting healing to large populations exposed to trauma in architecture, museum, and memorial design, in the formation and preservation of cultural identity, and in forging relationships among individuals and groups (Bathory, 2011; Bathory, 2012a; Bathory, 2012b). This paper explores an application of Applied Trauma Theory in economics by proposing an intervention to victims of major floods in response to global warming and provides a possible source of sustainable energy that may deliver improved public health and finances.

**APPLIED TRAUMA THEORY: CULTURE**

The role or influence of culture on people’s response to trauma has been addressed through Sotero’s (2006) Model of Historical Trauma and other studies. A related concept and application of trauma work is research completed in Serbia, Bosnia and the Balkan Region on national identity, after the dissolution of Yugoslavia (Biro, Mihić, Milan, & Logar, 2002; Đorđević, 2003; Puhalo, 2003; Đorđević, 2007). The Western Concept of a National Identity is tied to sharing a common space, political and governing structure and recognized citizenship. The Non-Western view of National Identity involved a “subjective feeling related to genetic lineage and common ancestors” (Đorđević, 2007, p. 387). The Non-Western National Identity is that of what Jung (1916 [reprinted 2002]) called the collective unconscious (shared history, myths, and archetypes). Đorđević (2007) completed a factor analysis of National Identity within Serbia comparing data from both 2003 and 2006 and determined there is an embedded factor of identity by this collective unconscious that exists outside of a country’s borders (Đorđević, 2003; Đorđević, 2007). This embedded identity is what we refer to as a Psyche. It ties the history, traditions and share culture into an identity that can exist outside of traditional Western views of a National Identity and is resilient over time.

Viktor Frankel’s interpretation of survival in concentration camps describes attributes to those factors identified as essential to resiliency (Frankel, 1963). Serbs were found to have the following commonalities by Zunjić (1999): a traditional Greek-European way of thinking, being critical and self-reflective, and socio-cultural ties to their history, arts and religion ethnicity and mental belonging as part of their psyche. In 2006, the views of relationships among ethnic groups were studied on a continuum of flexibility. Flexibility is defined as the “degree to which they tolerate change among national identity” (Đorđević, 2007, p. 385).

Refugee studies conducted with a population exposed to the Marmara Earthquake in which 17,000 people were killed and 44,000 injured (Aker, Onen, & Karakilic, 2007) points to cultural differences affecting the treatment of people exposed to disasters and trauma and describes both the influence of Turkish and Muslim values related to the expression of symptoms and recovery. Aker (2007) sites other studies conducted by Sabucuoglu who investigated Bulgarian refugees and Yurbay who treated Albanian Muslim children who were refugees from Kosovo and also found the importance of including cultural values in their treatment as well as a high resiliency within these populations.

In Sotero’s Conceptual Model of Historical Trauma, a dominant culture oppresses a population or social group and creates an effect that increases exponentially affecting the oppressed group’s physical health, sociocultural, political, and economic status (Sotero, 2006). Cultural resiliency and other protective factors can influence the effects, as can mitigating or aggravating factors in later generations, as was found in the Native Hawaiian population (Ka’opua, Braun, Browne, Mokuau, & Park, 2011). Combining this research with that of other studies on resiliency in children,