CULTURAL AND RELIGIOUS BELIEF SYSTEMS, TSUNAMI RECOVERY AND DISASTER RISK REDUCTION IN AMERICAN SĀMOA IN THE AFTERMATH OF THE SEPTEMBER 29, 2009 TSUNAMI

A THESIS SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAI‘I AT MĀNOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN PSYCHOLOGY MAY 2012

By Kathleen M. McGeehan

Thesis Committee:
Charlene K. Baker, Chairperson
Clifford R. O’Donnell
John F. Mayer

Keywords: American Samoa, 2009 tsunami, culture, religion, disaster risk reduction
Acknowledgements

There are several people without whom I would not have been able to complete this project, to whom I would like to express my most sincere gratitude.

To my committee, Dr. Charlene Baker, Dr. Cliff O’Donnell, and Dr. John Mayer, for mentoring me through this arduous process and providing expertise and support. Special thanks to Dr. Baker for her support through several challenges encountered over the past two-and-a-half years.

To the Taufa’asau family for welcoming me into their home, for showing me what the fa’aSāmoa really is, and for making me feel like a part of their ‘āiga. To Kris and Kross, for teaching me Samoan words and reminding me it’s okay to eat chips for breakfast (sometimes). To Karmen and Keilani, for sharing their stories with me. To Kurt, for sharing his last few days with his family before leaving the island with two pālagi girls.

To Tui and Vincent, I will never forget your kindness and hospitality.

Fa’aafetai. Fa’aafetai.

To Fa’aalu Faletese-Iuli, for your guidance, humor and kindness throughout this journey.

To Elisapeta Alaimaleata, Director and Founder of the Le Fetuao Samoan Language School, who welcomed me into their community and also served a crucial role in securing housing for me during my time in Tutuila.

To Mary Tiumalu, from the Feleti Barstow Public Library, for providing images from the library archives, and for providing valuable contextual information.

To my participants, I wish I could acknowledge you each by name. I am indebted to you for your willingness to talk with me, your contribution to this project was invaluable.

To Mai Nakasone, Diana Thompson, and Jana Shiraishi who assisted with transcription of my interviews, mahalo nui loa!

To Sherri Brokopp Binder, who started an incredible journey with me three years ago. While we weren’t able to collaborate on our research, we most certainly had an adventure. Thank you for supporting and challenging me.

To several close friends who supported and encouraged me throughout this process, mahalo for your support and encouragement.

To my parents, who have always encouraged me to work just a little bit harder, and not to let a challenge defeat me. I hope I make you proud.

And to Frank Sinatra, for providing the soundtrack for my countless hours of research, data analysis and writing.
Abstract

Factors impacting a community’s disaster vulnerability and recovery include: economic stability, socio-political structure, and cultural and religious values. These contextual factors impact the way communities: 1) interpret disaster; 2) recover; and 3) approach risk reduction. This qualitative study examined key factors in American Samoa after the 2009 tsunami, including: socio-political framework; role of faith; and influence of culture through interviews with village matai, congregation faifai’au, and community members. Religious beliefs shaped event interpretation and recovery approach. Socio-political structures impacted distribution of aid and pre-tsunami disaster risk. Cultural values, including focus on strength, service to others, and future orientation facilitated recovery. Practices such as disinclination to criticize and avoidance of negativity may create barriers to reducing disaster risk. The findings of this study suggest that by capitalizing on community strengths and creating culturally relevant solutions to barriers, better post-disaster outcomes may be leveraged in this and other culturally diverse, hazard-prone communities.
# Table of Contents

Abstract ........................................................................................................ iii
List of Maps ............................................................................................... iv
Introduction ............................................................................................... 1

## Literature Review
- Lessons from the Indian Ocean Tsunami ................................................... 5
- Sustainable Development: The Relationships between Economic & Ecological Stability & Disaster Vulnerability ......................................................... 5
- The Relationship between Socio-Cultural Systems & Disaster Vulnerability .......... 13
- The Relationship between Cultural & Religious Values & Disaster Vulnerability ... 17
- The Importance of Understanding Activity Settings ................................... 20
- American Samoa ..................................................................................... 22
- The Present Study .................................................................................... 23

## Method
- Participants .............................................................................................. 25
- Procedure ............................................................................................... 26

## Results
- Impact of the Tsunami ............................................................................. 31
- Beliefs about Causal Attribution: The Role of the Faith Community ............. 31
- The Role of Cultural & Religious Values and Practices in the Disaster Experience ... 44
- Systems of Disaster Management ............................................................ 64

## Discussion
- Tsunami Recovery ................................................................................... 76
- Considerations for Disaster Risk Reduction ............................................. 84
- Recommendations Moving Forward ....................................................... 91
- Contextual Influences and Research Limitations .................................... 93
- Future Research .................................................................................... 96

## Conclusion ............................................................................................. 98

## Appendices
- Appendix A: Interview Questions .......................................................... 99
- Appendix B: Introductory Overview of Project ......................................... 100
- Appendix C: Participant Consent Form .................................................. 101

## Glossary ................................................................................................. 102

## References ............................................................................................. 103
List of Maps

Map 1: Tutuila, American Samoa .................................................................35

Map 2: Village Map, Tutuila, American Samoa ........................................35
Introduction

Over the last decade, the number of natural disasters that have had catastrophic effects in communities across the globe has received much attention in the media and in the scientific community. In 1999, flooding destroyed sections of 9 Mexican states (Norris, Baker, Murphy & Kaniasty, 2005); the 2004 Indian Ocean tsunami wiped out large portions of Indonesia, Sri Lanka, India, Thailand and 7 other countries, killing nearly 300,000 (Sarvananthan, 2007); 2005 witnessed the destructive force of Hurricane Katrina in the United States; the devastating earthquake that rocked Haiti in January 2010 claimed close to 230,000 lives (“History of deadly earthquakes,” 2010); the earthquake that hit Chile the following month displaced 1.5 million people (“History of deadly earthquakes,” 2010); widespread flooding in Pakistan has displaced close to 21 million (“2010 Pakistan floods,” 2010); and Japan still struggles to recover from the tsunami that initiated a nuclear meltdown in 2011. While the number of natural hazards may be on the rise (Mileti, 1999), the extent of the catastrophic damage on the human population and physical infrastructure in inundated areas has grown exponentially, primarily as the result of globalization and lack of sustainable development, including rapid urbanization, settlement in hazard-prone areas, and environmental destruction (UNDP, n.d.).

What distinguishes a natural hazard, a purely atmospheric or geophysical event, from a disaster, is the impact the event has upon people. An earthquake that occurs deep within the sea, disrupting the structure of the ocean floor far from land, is a hazard. The resulting displaced water that forms a rushing wall of water, gaining in momentum and strength until it disperses across land (Levy & Gopalakrishan, 2005), is also a hazard. When that wall of water claims lives, destroys homes and physical infrastructure and disrupts communities and livelihoods, what was a hazard becomes a disaster (Perry & Quarantelli, 2005; Schilderman, 2004; Mileti, 1999). Unfortunately, communities with the fewest internal resources are at disproportionate risk for the devastating consequences of natural hazards turned disastrous.

Several economic and ecological factors make a community more vulnerable to the impact of disaster: 1) Economic instability limits community resources and capacities; 2) Communities and constituents with limited economic resources are less likely to have the capital necessary to implement recommended safety precautions, even
when appropriate needs assessments have been conducted and preparedness and mitigation strategies have been developed; 3) The destruction of local ecosystems through rapid urbanization, global tourism and commerce-driven development, (i.e., the infiltration of coastal areas by the tourism industry), not only disrupts the ecosystem but puts human settlements at greater risk, as natural buffers no longer provide protection for areas further inland; and 4) Non-sustainable development further exacerbates existing socio-economic gaps. These compound vulnerabilities are often concomitant and can be seen in diverse communities across the globe.

Another set of vital components in the contextual framework of a disaster-affected community are its embedded socio-cultural and religious values systems. For preparedness and mitigation strategies to be practically implemented and ultimately effective, it is essential that they be based within the cultural framework of the local community, specifically as related to underlying cultural, social and religious belief systems and ideologies. The cultural and religious lens through which the disaster is interpreted will have a significant impact on the types of preparedness and mitigative measures communities are likely to adopt, as well as their ability to recover from future stressors. Therefore, preparedness and mitigation plans which are, despite their structural logic and evidence-based effectiveness, incongruent with implicit and explicit local socioeconomic and cultural systems may encounter obstacles in implementation and long-term viability (Schilderman, 2004). For instance, in a community that views the negative effects of a disaster as punishment for wrongdoing, this culturally bound belief system may engender a community resurgence of cultural and religious propriety, but may not lend itself to investment in mitigative measures. Some subsistence-based communities relying on fishing and agriculture may be motivated to implement preparedness and mitigation measures that will protect crops, prevent damage to the fishing industry, or to foster healthy reefs and mangroves. These same communities may be resistant to moving away from the coastline behind protective buffer zones because of disruption in access to their livelihoods. Conversely, in the wake of such physical destruction and psychological trauma, communities may choose to relocate to higher ground, but may do so at the sacrifice of abandonment of traditionally inhabited areas.
Relocation may thus create resultant issues related to livelihood viability, land ownership, social structure, and religious and cultural tradition.

Therefore, disaster research must consider the culturally and religiously bound value systems and ideological frameworks of a community that has suffered a massive system shock, as these systems and frameworks impact: 1) the immediate post-disaster experiences of the affected communities; 2) the way the event is interpreted; and 3) the immediate and long-term strategies that are implemented for both recovery and future mitigation. Concomitantly, the community’s experience of the disaster, the way that it navigates the recovery process, and the mitigative measures that are implemented may fundamentally alter the socio-cultural operating system of that community. As Norris (2006) emphasizes, “most quantitative studies have done little that explicitly expands our knowledge of how culture shapes the experience of disaster stress” (p. 183). A better understanding of the relationship between cultural and religious belief systems and disaster recovery, preparedness and mitigation can offer crucial data that will inform the way that diverse communities navigate the processes of recovery and mitigation of future hazards. The current qualitative study examines these elements through the experiences of the survivors of the 2009 tsunami in American Samoa.

On September 29, 2009, two nearly simultaneous geophysical events, a magnitude 8.1 earthquake followed by an 8.0 megathrust in the Tonga trench of the Pacific Ocean, created a tsunami that hit the islands of Samoa, American Samoa and Tonga, (Lay et al., 2010) killing 194 (“Contract Awarded,” 2010) and causing massive damage to the physical infrastructure of the affected communities. As an unincorporated territory of the United States, American Samoa is locally governed and culturally distinct. Local social structure is predominantly governed by the matai system of village chiefs. Christianity, in various denominations, has pervaded the traditional Samoan cultural belief system since the arrival of missionaries in the late 19th century. These economic, socio-cultural, and religious contextual factors have implicitly shaped the way that the community experienced the tsunami as well as the course of the recovery process and the extent of implementation of preparedness and mitigation measures.

Through interviews with local cultural leaders (village chiefs or matai), religious leaders (congregational pastors, or faife’au), and members of the community, I examined
the role of embedded cultural and religious values and ideologies on the communities’: interpretation of the event; their recovery experiences; and the implementation of disaster preparedness and mitigation measures in American Samoa in the wake of the September 29, 2009 tsunami.
Literature Review

To better understand how embedded cultural and religious belief systems shape the way that a community experiences disaster and approaches recovery, it is helpful to consider the different ways in which communities with divergent socio-cultural histories and religious values systems view a single event. The 2004 Indian Ocean tsunami provides an excellent framework to examine these factors, as the event impacted the inhabitants of eleven different countries with communities that varied across a range of factors including: severity of impact; economic stability; socio-cultural framework; religious affiliation; and extent of previous experience with acute disaster or chronic community-level trauma. An examination of the differential experiences and recovery processes of the diverse communities hit by the 2004 tsunami helps to explicate the importance of economic, ecological, and social factors, along with embedded cultural and religious values systems in the interpretation of and response to a catastrophic disaster. The emergent lessons learned from the 2004 Indian Ocean tsunami thus serve as a framework for understanding the factors important in the recovery of the American Samoa community in the wake of the 2009 tsunami.

Lessons from the 2004 Indian Ocean Tsunami

December 26, 2004 was a Sunday, and the Buddhist Boxing Day holiday. An underwater 9.1 magnitude earthquake (U.S. Geological Survey, n.d.), which came to be known as the Great Sumatra-Andaman earthquake, caused a massive tsunami that claimed 300,000 lives, displaced another 1.85 million, and destroyed 440,000 houses or left them uninhabitable (Sarvananthan, 2007) in 11 countries bordering the Indian Ocean. On a holiday weekend, many families were at the beach, and many fishing boats, which would have been safer in deep water during a tsunami, were moored in their harbors. The loss of life and property was massive as a result. The fishing industry was decimated. The countries affected by the Indian Ocean tsunami varied widely in loss of life, extent of infrastructural damage, and capacity to recover. Among the most severely affected countries were Indonesia, Sri Lanka, Maldives and Thailand, with India, Burma (Myanmar) and Malaysia also suffering significant losses (Keys, Masterman-Smith, & Cottle, 2006). In addition to differences in the impact of the 2004 tsunami, these
countries vary widely in cultural and religious ideologies, political context, social construct and economic stability. These embedded socio-cultural, political and economic factors are integral to understanding: 1) the interpretation of the event and its catastrophic effects among the populations of the various nations; 2) the economic and social resources available for recovery, preparedness and mitigation; 3) the value placed upon investment in disaster risk reduction and sustainable development; 4) the way these distinct populations approached recovery, reconstruction, and hazard mitigation strategies; and 5) the reciprocal impact the disaster experience and recovery process has upon existing socio-cultural systems.

While disasters by their very nature are destructive, they also create opportunities for system-level change. By disrupting normal day-to-day functioning, disasters expose existing weaknesses in community infrastructure (Burkle, 2006); these pre-existing vulnerabilities exacerbate risk and jeopardize recovery. As the Special Envoy for Tsunami Recovery after the 2004 Indian Ocean tsunami, former U.S. President Bill Clinton offered recommendations for “Building Back Better,” a call for governments and non-governmental aid agencies (NGOs) to prioritize sustainable development and to leverage post-disaster opportunities to identify these vulnerabilities and take measures to mitigate them in order to rebuild stronger, more resilient communities (Clinton, 2006). While this concept gained much attention as nations struggled to recover from the 2004 tsunami, there was a call for qualification of this concept. Kennedy, Ashmore, Babister & Kelman (2008) suggested that utilizing the term “better” as a goal may be problematic, depending on how the concept of “better” is defined (i.e., more modern, more structurally sound, more hazard-resistant) and who is defining the concept (those managing the recovery process, those implementing the rebuilding process, government agencies, non-governmental organizations (NGOs), survivors, etc.).

Furthermore, these authors argue that in some areas after the 2004 tsunami, a results-driven push to “build back faster” resulted in the use of unskilled laborers and poor construction quality, thus resulting in increased vulnerability to future hazards (Kennedy et al., 2008). Both of these frameworks for recovery (building back “better” or “faster”) are problematic. Kennedy and colleagues instead recommend a shift to “building back safer” which implies more quantifiable disaster risk reduction strategies
that include attention to impacts on ecosystem stability, hazard mitigation, livelihoods, and the economy, as well as socio-cultural factors related to community-level sustainable development. The logic stands that a mere return to pre-disaster status fails to build capacity and leaves communities equally if not more vulnerable to the next hazard. Disaster risk reduction must not merely address the possible consequences of hazards, but must also address the system-level vulnerabilities that prevent community-level sustainable development and leave communities at greater risk.

**Sustainable Development: The Relationships between Economic & Ecological Stability & Disaster Vulnerability**

**Economic stability.**

Two of the most important factors in disaster vulnerability are the economic and ecological stability of the at-risk community. “The most profound and enduring impacts of disasters are concentrated where population pressure causes the carrying capacity of the land to be exceeded” (Alexander 1997, p288). Industrialization, rapid urbanization and overcrowding are contributors to as well as symptoms of deepening poverty, growing inequalities, and exacerbated vulnerabilities (Oliver-Smith, 1996; Vermaak & van Niekerk, 2004). Poverty lends itself to rapid urbanization and unsafe housing conditions including: inadequate construction, unsafe building practices in structurally unsound and geophysically unsafe areas such as floodplains, along coastal flooding corridors, or on steep hillsides that are vulnerable to collapse and landslide. Furthermore, disasters often act as poverty traps for the already disenfranchised. These factors put people at greater risk before a natural hazard even enters the equation.

When disaster hits, the obstacles to poverty reduction become even greater. In reviewing 161 empirical disaster studies, Norris et al. (2002) cite twelve studies that found that those with lower income or education showed poorer post-disaster outcomes, and Sarvananthan (2007) reports an increase in poverty in post-tsunami Sri Lanka. The economic-disaster dyad is locked in a deadly downward spiral: economic instability increases vulnerability to disaster and disaster exacerbates economic disparities. The result is that communities with insufficient pre-disaster capacities also have insufficient resources to mobilize in disaster recovery, and have even fewer to invest in long-term
mitigation that would ultimately increase resiliency and decrease risk to future hazards. What is more, when the same areas are hit time and again, the recovery modus operandi becomes one of constant relief with little potential for real recovery and sustainable development.

Easter (1999) cites level of economic diversification and trade dependence as two significant factors in assessing a country’s economic vulnerability to disaster. A country’s gross domestic product (GDP) is inversely related to its economic rank, and can be used as a measure of the economic fallout from disaster (Alexander, 1997). “Small states require a higher GDP in order to… withstand external shocks without outside assistance” (Easter, 1999, p. 403). It follows that small nations with greater dependence on external trade relations are more vulnerable than larger, more economically diversified countries. Thus, diversification of local economies and investment in community infrastructure can mitigate some hazard vulnerabilities (Clinton, 2006), as risk is spread over a broader economic base (Brouwer, Akter, Brander, & Haque, 2007). The differential impact on the nations affected by the 2004 tsunami provides a clear example of this recovery paradigm based on pre-disaster economic stability and diversification. While the Maldives suffered less overall destruction from the 2004 tsunami, losses (predominantly to its tourism industry) totaled roughly half of its GDP, which has greatly impacted the country’s ability to recover (Sarvananthan, 2007). In countries with more diversified economies, such as India and Thailand, not only were there existing infrastructures capable of dealing with large-scale disaster and therefore greater internal resources to be tapped for relief and recovery efforts, but these countries’ diversified economies and access to external resources made them more resilient to system shock and better able to move more quickly through the process of recovery. That those most impacted by the tsunami were those living in deep poverty is another indication that disaster exacerbates vulnerabilities and disproportionately affects those already in need of assistance. The United Nations warns that “without adequate assistance in recovery… disparities and inequities will be exacerbated and poverty will be deepened” (UNDP, n.d., p. 2).

Reliance on external funding, however, can be problematic. International NGOs (INGOs) have their own funding priorities, and aid is often distributed according to
outcome maximization, at the sacrifice of realistic community needs (i.e., quantity of houses built prioritized over quality of construction or appropriate socio-cultural customs, relevant to the “build back faster” concept discussed above; see Kennedy et al., 2008) and failure to maximize existing community resources and capacities. That sustainable development and mitigation strategies require longer-term commitment and implementation is often in direct conflict with donor priorities, and short-term timetables on deliverables further complicate the recovery process (Arnold, 2006). This tendency toward “upward accountability” to the priorities of donors neglects to consider the needs and existing resources of the community in the context of its long-term movement toward sustainable development.

Furthermore, when external funding sources allocate aid to disaster-effected communities, these dollars often do not constitute new funding streams. Instead, disaster relief monies are often diverted from other funds that had been earmarked for longer-term development needs (Walker, Wisner, Leaning & Minear, 2005; Burkle, 2006). Unfortunately, while these diverted funding streams serve as a stop-loss for immediate disaster losses, the diversion and re-allocation of long-term sustainability funds reduces community resiliency and increases vulnerability to future hazards. Although funds for immediate relief are crucial, an investment in sustainable development is an investment in hazard mitigation (Walker et al., 2005). In reality, limited funding streams and donor fatigue mean that eventually external funding sources are expended (Brown & Minty, 2008), and in a funding vacuum, long-term goals are sacrificed for short-term relief needs.

The case for sustainable development as an avenue to hazard mitigation becomes the cost-benefit analysis of immediate needs versus long-term stability. Without sufficient capital, a community with limited economic resources lacks the capacity to: perform adequate risk assessments; create adequate response and relief systems; implement disaster preparedness and hazard mitigation measures; conduct community education; implement sustainable development and poverty reduction initiatives; protect and promote ecosystem health; and many more preventive measures and coping methods. While the most comprehensive mitigation plans may create community best practices, in reality, with limited resources, communities and individuals must weigh immediate
subsistence needs with the potential for long-term risk when making decisions about investment in preparedness and mitigation strategies. For instance, the lack of tsunami warning systems in the countries hit by the 2004 tsunami was a critical factor in the high levels of loss of life (Satake et al., 2007). Despite the clear benefit of hazard warning systems in diminishing human loss, the cost of implementing such systems were prohibitive for many nations in Southeast Asia, given the perceived risk, and communities were forced to make the trade-off between current subsistence needs and investment in long-term sustainability and mitigation. Therefore, as Clinton (2006) contends, governmental agencies and INGOs must “make the strengthening of local capacity in recovery from an emergency a priority equal to that of service delivery” (p. 17) in order to build resilience, foster better post-disaster outcomes and move to more sustainable community development.

It is also important to note that some mitigative measures that are scientifically sound, evidence-based best practices for hazard mitigation will still likely be met with resistance from the community due to their collateral impacts on other system factors. For instance, the implementation of buffer zone restrictions in inundation zones may force fishermen to live farther from the source of their livelihood (Hyndman, 2009; Prashantham, 2008; Khasalamwa, 2009). If a community does not have a diversified economy, or if fishermen lack other viable livelihood options, an unintended consequence of buffer zone enforcement may be loss of livelihood and a weakened economy, resulting in a decrease in the community’s capacity to recover (as discussed above). Thus, mitigation against one type of hazard should not be implemented without assessing its potential impact on in increased vulnerability in another area (Kennedy, et al., 2008), as inevitable conflicts that arise compromise the effectiveness of the implemented strategies.

The economic factors addressed above are particularly salient for the community of American Samoa. As a geographically isolated island community, dependent largely on trade, with a minimally diversified economy that is based predominantly on government and the fishing/canning industries, the economic stage is set for increased vulnerability to the impact of disaster. Furthermore, some of the difficulties associated with reliance on external aid have been evidenced in the slow recovery process in
American Samoa, including delays and financial concerns over housing construction, (“Tsunami in Samoa,” 2010) and concerns over non-distribution of disaster relief funds (Sagapolutele, 2010a). Investment in a tsunami warning system had, prior to September 2009, been discussed but not prioritized in American Samoa, and without such preparedness measures, a lack of clear hazard communication and evacuation procedures contributed to greater devastation and loss of life (Harper, 2010). The community has moved toward building local disaster response capacity with the installation of a tsunami warning system, but economic factors continue to be a concern as the community works toward reducing risk in the midst of the current global economic downturn, the recent closing of the Chicken of the Sea tuna cannery (“American Samoa feeling effects,” 2010), and the mammoth task of tsunami recovery.

**Ecological stability.**

Economic and ecological instability, both factors in sustainable development, have been identified as mutually embedded, community-level vulnerabilities that can serve as barriers to effective disaster preparedness and hazard mitigation. Both of these factors must be addressed in order to work toward disaster risk reduction, greater adaptive capacity, and increased resiliency to system-level shocks. As Mutter (2008) explains:

“Cause and consequence become interlinked in a feedback trap when the quest for basic human needs causes environmental degradation, depletion of forest resources, fertile soils, and other natural assets that then deepen the conditions that perpetuate poverty. Though resulting from poverty these outcomes are equally determinants of poverty” (Mutter, 2008 p. 714; see also Bankoff, 1999 for a review of this process in the Philippines).

The link between poverty and environmental degradation is then exacerbated by exposure to natural hazards (Alexander, 1997). This cycle acts as an obstacle to preparedness and mitigation, serving to increase vulnerability to the next hazard.

As noted above, with limited resources, when faced with immediate subsistence needs, economic growth and short-term survival goals often trump efforts to maintain ecological health or long-term environmental stability (i.e., coastal development for tourism creates jobs and boosts the local economy; logging creates viable export materials and supports livelihoods; inundation zones may be settled in the absence of
more viable, safer housing options). Destruction of coastal wetlands, mangrove swamps and sand dunes, coral bleaching, and deforestation have all been shown to exacerbate the damage created by the destructive forces of tsunamis and other hazards, as was seen across the region affected by the 2004 Indian Ocean tsunami (Venkatachalam, Price, Chandrasekara & Sellamutu, 2009; Levy & Gopalakrishnan, 2005; UNDP, n.d.; GoSL, 2005). These natural ecosystem components prevent erosion and act to buffer extreme tidal forces, support biodiversity, and help maintain the overall health of the ecosystem. In the absence of these protective barriers, coastal communities are hit with the full force of colossal tsunami waves. Thus, the health of the ecosystem is crucial in reducing risk for coastal communities.

Other global events with local ramifications must also be considered. The global environmental burdens of atmospheric and ecosystem degradation are disproportionately borne by the communities with the least capacity to cope with their effects (Parks & Roberts, 2006). Rising sea levels due to global warming and polar ice cap melting will increase inundation zones, mostly in developing nations. This has led to a precarious situation for the island nation of Tuvalu, where rising sea levels are threatening to force evacuation of the entire population from their home islands (Parks & Roberts, 2006). A similar situation is occurring in the Maldives (Keys, Masterman-Smith & Cottle, 2006; Easter, 1999). As ecosystems across the globe weaken and disintegrate due to destruction and abuse, the global capacity to rebound is likewise weakened (Mutter, 2008; Bankoff, 1999), thus increasing ecological and economic vulnerability across the global village, and exacerbating existing hazard risk for vulnerable coastal communities.

As an island community, American Samoa is particularly at risk to the impacts of coastal hazards. The health of the ecosystem, including mangroves, sand dunes, wetlands and other protective barriers is an important component of assessing ongoing risk and implementing mitigative strategies along the islands’ coastlines. Additionally, like their island neighbors on Tuvalu, rising sea levels have the potential to significantly alter inundation zones. With a geophysical layout on the main island of Tutuila consisting of a large, sheer mountainous region bordered by narrow shoreline, the establishment of coastal buffer zones leaves precious little room for expansion or relocation into the
interior of the island. These ecological factors are an integral part of the development of disaster preparedness and hazard mitigation strategies.

**The Relationship between Socio-Cultural Systems of Governance & Disaster Vulnerability**

In addition to the economic and ecological considerations discussed above, embedded socio-cultural systems play a considerable role in effective disaster management and hazard risk reduction. Socio-cultural relevance is the key to successful implementation of disaster recovery, hazard mitigation, and sustainable development strategies. The United Nations Educational, Scientific and Cultural Organization (UNESCO) argues this point:

“By failing to take account of cultural diversity, development strategies risk perpetuating or compounding the shortcomings they are supposed to remedy. Consideration of social factors and cultural context, as well as community participation in project design and implementation, are essential to sustainable development efforts.” (UNESCO, 2009, p. 24)

It is important for communities to be involved in the development of recovery, preparedness, mitigation and sustainable development strategies so that these local contextual factors can be incorporated from inception through implementation. “Community-based study is needed to expose both vulnerabilities and community capacities for inhibiting or supporting local recovery efforts” (Flint & Luloff 2005, p. 402).

When disaster strikes, philanthropic nations, INGOs and professionals from a wide array of disciplines descend, with their own (often industrialized, “Western”) worldviews, values systems and biases. These biases are implicit in the way outsiders: define, interpret, and approach a disaster; interact with other organizations, governments, and recipients of aid; conceptualize sustainable development and risk reduction; and develop and implement relief and recovery interventions. The danger lies in the implementation of “better” solutions that neglect to incorporate local knowledge, values systems and worldviews (as discussed above; see Clinton, 2006 and Kennedy, et al., 2008 for further discussion). This was seen when efforts for gender equity in land titling conflicted with the existing culturally bound inheritance framework in post-tsunami Sri
Lanka (GoSL, 2005). While increasing equity is a noble and just pursuit, when catalyzed by international organizations, social change that upends existing social hierarchies and relational networks walks the fuzzy line of cultural imperialism (Bell & Carens, 2004; see also Marsella & Christopher, 2004). The spread of “hegemonic globalization” (Marsella, 2009, p. 124) has the potential to amount to an insidious new form of cultural imperialism where the impacts are, once again, borne by the least powerful communities. To approach disaster preparedness and mitigation from the dominant Western perspective, without consideration for traditional customs and indigenous practices would be a continuation of this colonization of culture, thus putting disaster-affected communities at greater risk for cultural disintegration and collapse of the social framework. As a result, community vulnerability is drastically increased. Indigenous knowledge, local contextual factors, and technological advances must be woven together into disaster mitigation strategies that are both locally relevant and scientifically sound.

In addition, local power structures may significantly impact the method by which the extent to which a community is able to recover. According to the rule of relative need versus relative advantage, aid is initially directed toward those with the greatest need, while in the long run, those with greater advantage benefit from the most assistance (Kaniasty & Norris, 1995). Thus, inequitable power structures may set the stage for “elite capture” whereby those in power inappropriately divert resources away from those who need it, thus making it more difficult for those with less power to access aid (Phillips, 2009). In communities where the embedded socio-cultural system is hierarchical, such as the caste system in India (Prashantham, 2008), distribution of aid may be particularly problematic, as a highly rigid social structure places significant demands upon members of the community regarding sanctioned behavior and perception of equity. Inequitable distribution can lead to resentment and hostility, as was seen in Tikopia in the British Solomon Islands by Spillius (1957). Thus, the existing, pre-disaster civil and political context is an important factor in recovery, as embedded inequities and ongoing conflict (i.e. chronic trauma such as oppression, civil war, famine, etc.) may impact resource accessibility and distribution (de Silva, 2008). The socio-political context and power differentials within a disaster-affected community will
contribute to the capacity of the entire community to recover, with those lacking resources (political, economic and social) faring worst.

In particular, power differentials and resulting inequities in access to resources across social strata can serve to further weaken the social networks that are so crucial to recovery (Norris, et al., 2005). Brun and Lund (2009) discuss the ways in which development and resettlement programs in Sri Lanka (similar to ones implemented in the 1960’s aimed at poverty reduction) drastically conflicted with culturally embedded social norms related to class and caste. This led to disintegration of social networks and heightened conflict among ethnic groups, both already weakened by ongoing civil war (see also Keys, Masterman-Smith & Cottle, 2006; Ruwanpura, 2009). While reconstruction efforts were better by structural and mitigation standards, by implementing housing models and community layouts that were culturally illogical, long-term community sustainability was compromised, and the opportunity for increased resiliency through strengthened communities was lost. Inappropriate building design was also problematic, as related to customary social and gender interactions as well as bathing and cooking practices (Ruwanpura, 2009). In this instance, governing structures did not appropriately consider the needs of those receiving aid, ultimately making the members of these communities more vulnerable. These disaster survivors lacked a voice in the political process of recovery, and were therefore unable to leverage appropriate resources for long-term recovery and community sustainability.

By contrast, communities that are empowered to tap into existing social networks and to mobilize existing resources and capacities show the best adaptive capacity when faced with system shock (Blaikie, 2009; Kaniasty & Norris, 1995; Norris et al., 2005). For example, Rigg et al. (2008) found that communities that tapped into existing social capital fared better in the recovery process than those with weaker social networks (fishing communities over tourism-based communities; Muslim communities were more cohesive than Buddhist communities). In subsistence communities, where extended kinship networks have traditionally been crucial to family survival by enabling families to maximize shared resources (Arredondo, Bordes & Paniagua, 2008), the functioning of the social and kinship networks impact the community’s capacity to recover from system shock. The implication is clear: existing social networks and relationships enhance
recovery outcomes. Furthermore, preventing the deterioration of social networks and “providing indigenous networks with the resources they need to help one another” (Norris et al., 2002, p. 248) builds adaptive capacity and cultivates community resiliency (Kaniasty & Norris, 1995; Norris et al., 2008). Thus, a focus on embedded socio-cultural factors is crucial to facilitating better community-level outcomes post-disaster.

The importance of the strength of social networks is also evident in the effectiveness of local education, hazard communications and indigenous knowledge in disaster preparedness. While warning systems are an important component of hazard mitigation, formal systems do not mitigate all risks, as remote areas are unlikely to receive such warnings (reaching this “last mile” is an ongoing challenge for disaster managers). Local education at the community level is crucial, as was seen in some areas impacted by the 2004 Indian Ocean tsunami, where local indigenous knowledge foretold the coming destruction, and entire communities were able to escape to safety (Morin et al., 2008). Schware (1982) found that in West Bengal, “The presence of an unofficial folk network enhance(d) the ability to disseminate warnings,” (p. 212) which supplement more formal governmental warning systems that may not reach all areas or may not arrive in time. Thus, both official and informal local methods of communication should be utilized concomitantly in order to provide coverage in the event that one fails to operate effectively. For Sri Lankans, whose local language did not even have a word for tsunami (GoSL, 2005), lack of local education regarding risk was a tough lesson learned. For communities seeking to establish mitigation and preparedness measures, leveraging community strengths by tapping into existing social networks and capitalizing on indigenous knowledge is a crucial component for success.

The socio-political context in American Samoa is unique: the embedded social hierarchy and strict socio-political structure provides the basic framework for the social milieu, and all interactions therein (see Shore, 1982 for a full description of this structure). The social framework is an extended kinship network governed by the matai system of village chiefs. Extended families, ‘āiga, live together on communal land, presided over by the family’s highest-ranking member (usually a male). However, while power within each village is centralized within the hierarchy, power across villages is decentralized: each village system operates independently from neighboring villages.
This complex governance structure creates a unique context for equitable aid distribution and prioritization throughout the recovery process. It also has important implications regarding proactive implementation of disaster risk reduction initiatives, as well as post-event analysis and strategies to build on lessons learned. All of these socio-cultural factors play a role in the way that the community navigates the recovery process, and serve as the framework for the way that the emergent post-disaster community takes shape. Without attention to existing, cultural norms and structures, disaster risk reduction strategies may fail.

**The Relationship between Cultural & Religious Values & Disaster Vulnerability**

In addition to the social and political framework of a community, its embedded cultural and religious values systems are key to understanding the impacts of disaster. Communities use their cultural and religious belief systems to interpret events and look to these systems to guide their recovery. “Culture constructs our realities and shapes the way we perceive and experience reality” (Marsella, Johnson, Watson & Gryczynski, 2008, p. 5). Thus, the “culturally constructed meanings assigned” to an event may have a greater impact on recovery than on the objective features of what occurred (i.e., severity of exposure) (Wessels, 1999, p. 272). Rigg, Grundy-Warr, Law & Tan-Mullins (2008) describe the way the 2004 Indian Ocean tsunami had such an impact on the people of Thailand:

“It is not, therefore, simply that the tsunami killed people, sank fishing boats and destroyed hotels and guesthouses. It also changed the way that people thought about their futures, what was important to them, and the ways that they wished to make a living.” (p. 149)

For these Thai communities, the experience of the tsunami fundamentally changed their pre-disaster worldview. Emergent post-disaster cultural shifts may impact the way the community functions as well as the types of measures they choose to implement to mitigate future hazards. In communities where hardship is a part of daily life, the tragedy of disaster may be seen through a lens of chronic suffering, and thus there may be resolution to the status quo as opposed to expectation of positive outcomes found in communities with greater resources (Abi-Hashem, 2008). Cheng (2006, p. 15) reported that in Sri Lanka, the traumatic experience of the tsunami in a country that has been
suffering through a violent, decades-long civil war led to a “loss of trust and belief in a future.” This newly developed worldview may have a direct impact on the implementation of mitigation measures. If the emergent post-disaster belief is that there is no hope for the future, the need for investment in mitigation is moot.

It is clear that existing values systems implicitly shape the way that a disastrous event is interpreted as well as the coping responses that are (or are not) explicitly activated. In a review of disaster studies in developing countries, Norris (2008) reports that among other factors, perceived control, hope and optimism, and social support were positively associated with better outcomes post-disaster. The view of the future that is created after the event (i.e., hopeful versus hopeless) will impact the recovery process. Future orientation has also been shown to lead to better outcomes (Norris et al., 2002). If these resiliency-related factors can be harnessed as a part of the recovery process, and integrated into the local perception of recovery and culturally-bound coping systems, better preparedness and mitigation outcomes may be leveraged. However, these factors in coping may be in direct conflict with embedded belief systems within the community. Finding common ground between fatalistic belief systems, and perception of control and optimism is a delicate balance, not easily achieved.

From a religious perspective, if disasters are interpreted as having been precipitated by a higher power, religious and cultural leaders may be seen as those most qualified to restore balance and harmony to the community (Arredondo, Bordes & Paniagua, 2008). Thus, cultural and religious community leaders are uniquely qualified as the gatekeepers to the community’s interpretation of the event, as well as the primary guides to coping and recovery. The way that these community leaders interpret the event and frame the value of preparedness and mitigation may set the tone for both individual and community-level response. Thus, implicit religiously bound belief systems have explicit impacts on actions taken post-disaster.

Religioulsly bound belief systems have the potential to support or inhibit recovery and disaster risk reduction. Release of control to a higher power may foster hope, providing a sense of relief that enables movement forward, or it may alternatively undermine the perceived sense of control and mastery that has been shown to lead to better post-disaster outcomes (Norris et al., 2002). For instance, the concept of fatalism,
embedded in both Hindu and Muslim belief systems, purports that life is entirely in the hands of a higher power (Norris & Alegria, 2008; DeVries, 1996). If human intervention is believed to have no impact upon the physical realm (Arredondo, Bordes & Paniagua, 2008; Wilson, 2008), this implicit belief may manifest explicitly as little or no value placed upon the need for or usefulness of disaster preparedness or hazard mitigation.

Muslim survivors of the 2004 Indian Ocean tsunami (Riddell, 2007), the 2005 earthquake in Pakistan (Kalayjian, 2009), the Cook Islands cyclone (Taylor, 1999), and the 2006 earthquake in Java, Indonesia, (Schlehe, 2010) reported similar causal beliefs regarding disaster as a retributive message from Allah for the people to reform their ways, and return to fundamental values. This perception of disaster as retribution may “engender excessive guilt and anxiety” (Dudley-Grant & Etheridge, 2008, p. 223), and feelings of helplessness and subsequent inaction may serve to decrease resilience and increase risk when communities are faced with future hazards (Taylor, 1999). In the Buddhist faith, suffering and sorrow are considered a natural part of life (Wilson, 2008; Kaplan & Huynh, 2008). If hope for a better outcome after disaster potentially leads to spiritual suffering, implementation of mitigation may be seen as antithetical to positive outcomes. Additionally, an “underlying belief in karma could lead to quicker acceptance of the inevitable,” (Prashantham, 2008, p. 200) which may lead to indifferent or negative attitudes toward preparedness and mitigation (Levy, Slade & Ranasinghe, 2009).

However, religious belief systems may also build resilience. Since karmic good deeds in this life will impact future lives of self and family (Prashantham, 2008), this Buddhist belief could lead to increased engagement in recovery and mitigation, and may foster community cohesion as members reach out to provide assistance to one another. At a community level, this could mean more successful post-disaster development outcomes. (For further discussion about the Buddhist belief system in the experience of tsunami survivors in Sri Lanka, see de Silva, 2006). Other varied interpretations of disaster causation can be seen in religious belief systems across the globe. A positive outlook on recovery that empowers the faith community to work together to rebuild engenders greater community cohesion and may facilitate recovery. Among Latinos, faith in God and hope that He will provide and protect may lead focus away from the negative aspects of a disastrous event (Arredondo, Bordes & Paniagua, 2008). While this positive
outlook may contribute to greater social cohesion and hopefulness, if the community does not acknowledge practical weaknesses that contributed to negative disaster-related outcomes, recognition of the importance of preparedness and mitigation may be undermined.

It is clear that the religious interpretation of a traumatic event can have a considerable impact on the way that a community recovers as well as how the community views the value of disaster mitigation; thus, religious beliefs may serve as a significant barrier to or catalyst for the implementation of mitigative strategies. Reciprocally, the disaster experience may have repercussions for the religious life of the community. The trauma of disaster may cause faithful individuals to question their beliefs and lose faith; others may feel a greater closeness to their higher power. The role of religious belief systems in recovery and resilience is complex, and requires examination within a specific cultural context in order to understand the way that the local perspective frames the interpretation of the event and the role of human intervention.

In addition to embedded cultural and religious values systems, implicit and explicit community-level perceptions of risk and resiliency can serve to hinder or leverage effective disaster risk reduction. (See Wilson, 2008 for further exploration of the role of cultural “perceptual filters” as related to post-disaster interpretation, coping and resilience.) “Risk perception occurs in a social context where individual notions of risk are filtered by community influences such as shared experience and existing power relationships (Hannigan, 1995; Fitchen et al., 1987).” (Flint & Luloff 2005, p. 406). Furthermore, “the ways risks are perceived within communities influence the range of actions undertaken to reduce them” (Flint & Luloff, 2005, p. 408). If perceived risk is high, communities may take significant measures to mitigate that risk, such as relocation. However, in communities where livelihood and social structure are intrinsically tied to the land, the associated social and economic consequences of relocation may be too great to be considered worthwhile.

The Importance of Understanding Activity Settings

Education programs that espouse disaster preparedness and hazard mitigation interventions that do not tap into community-level priorities and individual-level values
systems have been shown to be poorly implemented and ultimately ineffective. It is crucial to adapt these disaster programs to align with culturally bound systems. As such, it is helpful to analyze disaster risk reduction strategies in the context of the affected community. Activity Settings Theory (see O’Donnell & Tharp, 1990; O’Donnell, Tharp, & Wilson, 1993) provides a framework for understanding how a catastrophic event impacts an existing social system. “Settings are recurring events in individuals’ daily routines in which two or more people interact around some joint activity” (Gallimore, 2005, p. 207). As such, activity settings are conceptualized as the “basic unit of analysis of communities” (O’Donnell, Tharp, & Wilson, 1993, p. 504), providing context for behavior, interactions, and patterns of activity at the individual, group and community level. Through these settings, individuals collaborate, develop shared meanings, and engage in reciprocal learning.

The key components of activity settings theory can be applied in the context of disaster risk reduction. Effective interventions must: be delivered through appropriate community gatekeepers; capitalize on and extend the roles of local leaders; complement and supplement existing local resources; and coincide with local community goals and values. Furthermore, the scripts for accomplishing the recommended tasks must also be explicit and locally relevant. Community members must understand the purpose of the intervention(s) and the value in its implementation.

In the context of this study, an example of a Samoan activity setting is the village. Village chiefs (matai) and congregation pastors (faife’au) are important social, cultural and religious leaders, with specific roles to play in the community. They also serve as gatekeepers to the members of the village. Social interactions in the village are governed by the expectations and scripts that are determined by one’s place in the social hierarchy. These scripts are based on the values of the community, such as strength, resilience, and responsibility to one’s family. Each village has a set of resources available, based on the size of the village and the number of families who are represented. Tasks in the village are ongoing; in the context of this study may include the disaster recovery process and the implementation of strategies to reduce future disaster risk. This framework will be utilized to better understand the context of the disaster experience for the communities of American Samoa.
For instance, as noted above, the preservation of social networks is crucial to the ability of a community to adapt to drastic changes within the system (Blaikie, 2009; Kaniasty & Norris, 1995; Norris et al., 2005). These networks serve as resources for social support; if the network is disrupted, resources may no longer be available. Furthermore, the shared meanings that are crucial to the network’s ability to thrive may change, as members of the community develop new or different beliefs, practices and values as they begin to rebuild post-disaster. Thus, changes in pre-disaster social systems and activity settings can have a significant impact on both disaster recovery and disaster risk reduction strategies.

American Samoa

The disaster experience and the recovery process are both complex and dynamic. Recovery from disaster has shown to be dependent upon a community’s economic and ecological health and stability. Additionally, as discussed above, the social, political, cultural, and religious framework of the disaster-affected community shapes the interpretation of the event, the way the community approaches recovery, and the preparedness and mitigation measures they choose to implement. Reciprocally, the experience of catastrophic disaster and the implementation of mitigation strategies have the potential to fundamentally alter the pre-existing socio-cultural fabric of the affected community.

These issues are of particular relevance in American Samoa. Economically, several factors make the community more vulnerable to system shock, specifically: trade dependence; reliance on subsistence agriculture and fishing; reliance on remittances from family members living abroad (mostly in New Zealand, Hawai’i and California); and a minimally diversified economy (predominantly canning, fishing, and government employment). The islands’ remote location in the Pacific and the geophysical composition of the islands (predominantly mountainous with minimal land area along the coast) create ecological vulnerabilities and barriers to the implementation of coastal buffer zones.

The social organization of American Samoa is based on a system of extended kinship and hierarchical social governance. Local social structure is predominantly
governed by the *matai* system of village chiefs. Extended families, *āiga*, live together on communal land, presided over by the family’s highest-ranking member (usually a male). Socio-politically, the hierarchical social and governance structure creates a unique context for aid distribution and prioritization throughout the recovery process. Additionally, cultural values and practices, such as the preference to avoid negative thoughts, actions and memories may impact post-event analysis and implementation of strategies aimed at capitalizing on lessons learned from the event.

The dominant religious affiliation in American Samoa is Christianity, in various denominations, which has been woven into the *fa’aSāmoa,* or the Samoan Way, since the arrival of missionaries in the late 19th century. There is a strong belief among the community in the will of God, which shapes the way the community understands and copes with this traumatic event. The community recently celebrated the *talagateu,* marking the one-year anniversary of the tsunami and the loss of 34 members of the community, bringing a sense of closure to the event, despite ongoing recovery (Sagapolutele, 2010b). The way that this unique community utilizes its faith, intertwined with its traditional Samoan coping practices is integral to the recovery process. All of these contextual factors (i.e., economic, ecological, socio-cultural and religious values and practices) shape tsunami recovery and disaster risk reduction as the communities of American Samoa navigate the disaster experience.

**The Present Study**

The present study seeks to investigate the contextual factors that have shaped the experience of the 2009 tsunami in American Samoa, including ecological, economic, socio-cultural, and religious aspects of the community. There have been many lessons learned from the experiences of the nations affected by the 2004 Indian Ocean tsunami. Ecological factors related to mitigation, such as the implementation of buffer zones and relocation out of inundation zones has been shown to have economic and social impacts such as decreased community cohesion and livelihood viability. Similarly, massive ecological destruction of subsistence and agriculture-based communities is well noted.

---

1 For a description of the *fa’aSāmoa,* see Ngan-Woo, 1985.
Economic constraints such as lack of diversified economic infrastructure and reliance on external trade resources have been shown to be an impediment to investment in sustainable development and hazard preparedness and mitigation. The social framework of a community and its embedded cultural values and practices, and religious belief systems provide a framework for interpretation of the event itself as well as for the recovery and disaster risk reduction processes. Each of these contextual factors plays a crucial role in the way that a coastal community experiences and responds to traumatic system shock.

Through interviews with members of the community of American Samoa, as well as their cultural and religious leaders, I endeavored to gain a deeper understanding of the experience of the American Samoan community by examining the ways that socio-cultural and religious factors have shaped the experience of the September 2009 tsunami. I examined the following factors: 1) the importance of religion in interpreting the cause of the tsunami 2) the ways in which cultural and religious values and practices (in addition to economic factors) may foster or constrain the implementation of disaster risk reduction strategies; and 3) the impact of the mitigation measures that have been implemented since the tsunami. Through analysis of the data collected, culturally-bound impediments to recovery and effective disaster preparedness and hazard mitigation emerged, and the nature of the reciprocal relationship between the existing socio-cultural context and implementation of mitigation strategies was evident. The strength of the people of American Samoa also emerged: their deep care for their families, and their values of service, reciprocity, and faith bolstered their communities as they began the process of rebuilding and recovery.
Method

Participants

Participants of this study included cultural and religious leaders in Pago Pago and nearby villages as well as members of communities who were directly impacted by the September 29, 2009 tsunami. Participants included cultural leaders (village chiefs or matai) from 3 local villages impacted by the tsunami; 3 pastors (faife’au) from major religious congregations; 2 representatives of a federal territorial management agency; and 8 members of the community who were impacted by the tsunami. Seven participants were women; nine were men. All of the participants were referred by trusted members of the local community who served as liaisons for this project and agreed to assist in the identification and recruitment of potential participants. Five key informants, including members of my host family as well as contacts who assisted with the development of the research project, served as referral sources. Participants were also referred by contacts via snowball sampling once I arrived in American Samoa.

Measures

Specific topics for interviews varied slightly based on the role of the interviewee in the community. However, all participants were questioned regarding: 1) their experience during and in the immediate aftermath of the tsunami; 2) the impact that the tsunami had had on their lives up to the time of the interviews, 18 months after the tsunami; 3) their interpretation of the tsunami (what happened and why); 4) their level of preparedness prior to the tsunami; 5) the types of preparedness and mitigation measures they have taken since the tsunami; and 6) the effects these measures have had on their lives (related to livelihoods, physical location, social interactions, and cultural and religious belief systems).

In addition to these questions, cultural and religious leaders were asked questions relevant to their roles as leaders in the community. Topics specific to religious leaders included the way that they “framed” the tsunami for their congregations from a faith-based perspective, including its cause, strategies for recovery, and plans for preparedness and mitigation; and the impact the tsunami had upon the faith of the people. Topics specific to cultural leaders included the types of preparedness and mitigation measures
taken in their villages since the tsunami; and the ways that these implemented measures may have impacted the village, including its physical layout, livelihoods, and social structure. Additionally, questions addressed the importance of the following concepts in Samoan culture, and the way that these concepts shaped the interpretation of and response to the tsunami: social structure and the role of the sea in the life of the community. The ways that subsequent preparedness and risk reduction measures have impacted these pre-existing embedded socio-cultural belief systems were also addressed.

Interview questions were open-ended. At times questions not included in, but relevant to the themes and topics addressed in the initial interview protocol (Appendix A) emerged and required prompts for additional information.

Due to the sensitive nature of the topics of personal religious and cultural beliefs, as well as the participants’ personal experiences with the tsunami and its aftermath, it was possible that participants might become distressed during the interview. Participants were fully informed of the topics to be covered prior to signing the consent form and were informed that they were free to withdraw from the interview at any time. Only one participant became upset during the interview process. I used my own personal discretion as a trained counselor and allowed the participant to decide whether or not to continue the interview. The participant wished to continue and expressed gratitude for the opportunity to tell her personal story of survival.

**Procedure**

Snowball sampling was utilized in order to minimize potential distrust of an outsider asking very personal questions about cultural and religious beliefs as well as experiences with the tsunami and its aftermath. A potential heightened sense of wariness and mistrust of researchers was due in part to controversial research conducted and published about American Samoa in the past (see Freeman, 1983, for a discourse on this topic). Thus the involvement of local cultural and religious leaders, who were able to provide the researcher and the current study with credibility, were crucial to gaining access to members of this tightly knit community. By establishing rapport with cultural and religious leaders and other members of the community, I hoped to foster credibility with the members of the community in order to elicit candid feedback during interviews.
These referral sources were provided with a brief introduction of myself and an overview of my project (Appendix B) that served as a resource when approaching potential participants to inform them of my research interests, the purpose of the study, the reasons feedback from cultural and religious leaders as well as members of their communities would be valuable to the study, and the applied use of research outcomes.

Several cultural considerations specific to Samoan tradition and values shaped the way that the interviewing process unfolded. The Samoan way of life, or fa’aSāmoa, embodies the cultural traditions of the Samoan people. The highly structured social framework includes a long history of oration and hierarchical leadership over large kinship networks. Social interactions include expectations for both formal and informal exchanges, with formality expected in initial meetings and a movement toward informal conversation, or talanoa (described in more detail below), developing slowly over additional interactions (Lesa, 2009). (For a full discourse on Samoan social structure and a description of social interactions, see Shore, 1982). Thus, the Western approach to formal, structured interviewing and information collection does not coincide well within the Samoan cultural and social interactional framework. Information requested in a formal manner (such as a structured interview) may be shared sparingly, depending on the level of respect and trust that has been established among individuals. In order to cultivate open relationships, to foster an atmosphere of trust and open communication indicative of talanoa requires an investment of time and demonstrated respect (Lesa, 2009), which is undermined by the truncated, sterilized Western data collection methodology. Talanoa implicitly requires the involvement of the researcher in the interpersonal exchange; there is no removal of the self from the research interaction. Instead, talanoa is a collaborative approach that is based on the formation of relationship and the development of rapport (Duranti, 1981; Lesa, 2009). This approach required that I be open to sharing about myself, my background, and my personal life in a way that is uncommon to Western research methods. The incorporation and valuing of indigenous cultural systems and social structures also helps to foster greater transparency and sharing of ideas, thus hopefully increasing the validity of the information collected (Otsuka, 2006).
The traditional *talanoa* approach to interaction includes: 1) a more formal initial meeting, followed by several meetings over time in order to develop rapport; 2) a greater give and take of personal information between researcher and participant than would be considered appropriate for the research milieu; and 3) presentation of a small gift, per Samoan tradition, to the person who is being asked to participate (provide a favor). Upon arrival in the field, my referral sources did not feel that the extended process of a series of meetings was necessary; if the person who was serving as my referral source “vouched” for me, participants were willing to be interviewed without an extended period of relationship development. In fact, I included personal information about myself in my Introductory Overview of the Project (Appendix B), which provided a description of my research, in order to place myself within the setting and begin to build rapport before the start of the interview. I did find that participants were curious about my personal life. The two most frequent questions related to whether or not I was married, and how I could be so far away from my family. Thus, the building of rapport through personal exchange with the participants was an important piece of my methodology. Because Samoan culture incorporates a strong sense of hospitality and the sharing of food, research through *talanoa* includes the sharing of food in a way that traditional Western research does not (Lesa, 2009). As such, as a sign of respect and hospitality, I offered a small gift of food to show hospitality, and friendship, as well as appreciation for their willingness to share with me.

It is important to note that one village leader required that my referral source be present for the entire meeting. This participant spoke in Samoan repeatedly throughout the interview to the referral source, often apologizing for doing so. Since the participant required the referral source’s presence in order to proceed with the interview, I would not have been able to collect any data from this participant otherwise. Whether this presence impacted the content of what was shared is unknown. No other participants requested that the referral source be present during an interview.

**Interview protocol.**

Once initial contact with participants had been made, a meeting was then arranged for me to interview potential participants, either through the facilitation of the referral
source or through my direct contact with the potential participant. After introducing myself, and thanking the person for agreeing to meet with me, I described my research interests and explained how their experiences would contribute to my research. At this time, I asked if they were still willing to participate in an interview. Upon agreement, all potential participants signed a participant consent form (Appendix C). I asked each participant if they would permit me to audio record our interview, assuring each person that names would not be attached to the audio recordings, and that after they had been transcribed, the audio recordings would be deleted. Each participant agreed to be audio recorded, and we proceeded with the interview. At the end of each interview, I presented each participant with a small gift of nuts or cookies to show my gratitude, and understanding and respect for the fa’aSāmoa.

Data Collection

All interviews, written and photographic observations were conducted during field research conducted on the island of Tutuila, in American Samoa from January 1 – 25, 2011. I traveled to American Samoa with another Ph.D. student who was concomitantly conducting independent research distinct from my own but also related to the 2009 tsunami. It was suggested by a trusted advisor that a portion of field research be spent living with a Samoan family. Funding constraints prohibited us from lodging in a hotel for our three-week trip. As such, we rented a room from a family living in Pago Pago along the harbor. This lodging arrangement was set up by a contact in Honolulu with whom we had developed a relationship prior to our departure for American Samoa.

Personal interviews were conducted in person and recorded with an Olympus DS-40 Digital Voice Recorder. The identities of participants and their feedback have been kept confidential. Aggregate information has been utilized to establish themes across participants and methods. All interviews were conducted in English in a place convenient to the participant.

Archival data were used to provide contextual information regarding economic conditions (including livelihood data such as employment status and reliance on agriculture and fishing); and community-level preparedness and mitigation measures prior and subsequent to the tsunami. Archival sources included census data and
government reports to establish the socio-economic and ecological contexts for the tsunami. Other sources that were utilized to provide contextual information regarding the impact of the tsunami and the perceived progress of recovery efforts provided cultural contextual information include: media reports such as news columns, TV news reports, opinion columns, letters to the editor, and archival records and photographs from the Feleti Barstow Public Library.

Observations of tsunami-affected areas were documented in written and photographic form. These data were used to provide additional context and to serve as a source of triangulation for the tsunami’s impact and the ongoing recovery efforts.

**Data Analysis**

All interviews were transcribed to a digital word file. Data were coded with Nvivo9 qualitative coding software. Open and axial coding were conducted with attention to the organizing cultural and religious themes identified by the researcher prior to data collection, such as: how people interpreted the cause of the event (i.e. was it an act of nature, or an act of God?) and how the social hierarchy played a role in the disaster experience. Themes that emerged naturally through the responses of the participants were coded as well (see Corbin & Strauss, 2008). Through the process of open coding, the raw data were categorized according to the concepts they represented, referred to as in vivo codes. For instance, if a person discussed aspects of Samoan culture that enabled the community to recover, such as gathering the ‘āiga together to cook and “talk story” (talk with one another), this may have been classified or coded as “talk story”. After all of the codes had been established, the concepts that were related were grouped into themes, such as “social support” or “healing.” These were then grouped into meta-themes, such as “systems of coping.” Through the process of axial coding (Creswell, 2007), relationships among themes were identified and supported by excerpts from the raw data. Themes were triangulated among different participants, as well as with archival data and the research literature.
Results
The results section is broken down into three main topics proposed at the outset of my research: factors related to: 1) the importance of religion in interpreting the cause of the tsunami 2) the ways in which cultural and religious values and practices (in addition to economic factors) may foster or constrain the implementation of disaster risk reduction strategies; and 3) the impact of the mitigation measures that have been implemented since the tsunami. Before these three topics are addressed it will be helpful to provide context for the results. Therefore, the next section describes the 2009 earthquake and subsequent tsunami in American Samoa.

Impact of the Tsunami

The event.

The people of American Samoa have termed the tsunami “Galu Afi” or “Wave of Fire,” and a year later, they are still healing from the devastation. The island of Tutuila is only 250 kilometers from the epicenter of the earthquake that precipitated the tsunami. There were only 20 minutes between the quake and the impact of the first destructive wave, which hit the island at 7:08am. (National Ocean and Atmospheric Association, n.d.) That the epicenter of the earthquakes that precipitated the tsunami was so close to the islands left precious little time to sound an alarm (without a functional siren system), and less time to evacuate. Thirty-four members of the American Samoa community lost their lives that September day, a staggering number for the tight-knit community of just over 55,000 (U.S. Census Bureau, 2011). That the tsunami occurred in the early morning saved lives, as many people were already awake and going about their morning routines, some already en route to work and school. If the waves had come at night, when the villages were cloaked in darkness, with all inhabitants deep in sleep, evacuation and escape would have been nearly impossible. The villages that had the most damage would have likely lost the lives of all who lived there.

The areas of American Samoa hardest hit by the September 2009 tsunami were the capital, Pago Pago, and the west side of the island. The deep harbor and crescent shape of the harbor in Pago Pago created a spiraling effect that amplified the damage inflicted by the tsunami waves. The west side of the island bore the brunt of the force of
the tsunami waves. In Poloa, all structures save one church were completely destroyed. Much of the village of Leone suffered similar destruction. In many areas around the island, the coral reefs sustained severe damage, as did the sea wall protecting some villages. Sea life populations are still recovering from ecosystem damage. Nearly three hundred homes were destroyed, thousands were damaged and there was significant damage to the physical infrastructure of the island community; assistance greater than $33 million was reported, with an additional $107 million for future distribution (FEMA, 2010).

Sixteen months after the tsunami, at the time this research was conducted, the community was still struggling to rebuild. The islands’ isolated location in the Pacific Ocean some 2,500 miles southwest of Hawai‘i has hampered rebuilding efforts. As an unincorporated territory of the United States, American Samoa is locally governed but entitled to federal assistance from U.S. government agencies. The Federal Emergency Management Agency (FEMA) was rapid in initial response and has been involved in rebuilding the community, though only 8 of 41 homes due to be constructed had been completed at the time of data collection. FEMA tents are still in use in the villages that were hardest hit. Road and bridge repair and reconstruction are making slow progress. These examples illustrate that recovery is underway but far from complete.

Some families’ homes and businesses have been restored, some are still in process, and some will never return to their pre-tsunami lives, as they cannot afford to
rebuild their businesses, even with assistance. Some have resumed their lives in total, living and sleeping in the same places where their families have lived for generations, beside the sea. Many others struggle to resume their former lives, still haunted by the traumas of that September morning.

“People were running and yelling, saying ‘Leone village is gone… it’s gone…”

To some extent, the geophysical structure of the island determined the severity of the impact of the tsunami. The west side of the island took the brunt of the tsunami’s force, destroying towns such as Poloa, Amanave and Leone. In areas where homes perch on a narrow strip of land between the mountain and the sea, people found themselves with precious few routes for escape, forced to claw their way up the mountain to escape the waves, some half-dressed, clothes torn from their bodies by the force of the waves. While the first wave was the worst in Pago Pago harbor, in Amanave, the third wave did the most damage. This difference saved lives in Amanave, where the third wave was so high it washed over the tops of buildings, tearing the roof entirely off one of the churches.

Those few extra moments before the most damaging third wave tore across the town allowed its inhabitants to escape. In the capital, Pago Pago, the deep crescent-shaped
harbor funneled the wave to the back of the harbor where it met the mountain with incredible force.

In Leone, the wide, flat stretch of land between the sea and the mountain meant that the wave rushed back to the mountain and died there; the water did not recede for several days. In Poloa, where a very narrow strip of land separates the sea and the mountain, the wave rushed over the houses and crashed immediately into the steep wall. The town has no siren and no bell. Village members ran and yelled for others to evacuate. The elementary school was washed away. Luckily, all of the children were successfully evacuated, but one teacher lost her life.
Villages of Tutuila

Source: Post-Tsunami Coastal Resource Damage Assessment, 2009
The force of the tsunami waves had an ecological impact as well, destroying the sea wall in some places, and in many places around the island, the coral reefs were severely damaged. Loss of coral has an impact on viability all the way through the ecosystem, as species that rely on the reefs for food and shelter struggle to survive. The fish farm in the lagoon also suffered losses to its population, and fishing there has declined substantially since the tsunami.

The destructive water was not the deep crystal blue of the South Pacific; it was black, filled with waste, oil, debris, and pieces of corrugated metal. The force of the wave was destructive in and of itself, but filled with sharp and heavy projectiles swirling in the black water, the waves were even more deadly. When the first wave receded, people ran to give aid to those who had been caught, saving many of their lives from the force of the second and third waves. As they struggled to higher ground, people ran down from the mountain to provide aid, to cover them, and to rescue those who had been trapped in cars and buses, or had clung to trees, fences and poles to keep from being thrashed about in the water until the waves receded. While there were some reports of looting, and reports that people who had not been affected by the tsunami sought and received assistance, the overwhelming memories of that day were of gratitude, courage and heroism. Some were more knowledgeable about the risk of tsunami, and this knowledge saved lives.

The faife’au (pastor) of the London Missionary Society (LMS) congregation in Fialolo ran through the village shouting for people to run to higher ground, and then led them through a shortcut up the mountain. When the waves had receded, he waited at the edge of the village for people to return, to greet them, to calm them, and to give them information about where they could find their family members. Every life in the village was saved. In Amanave, the pule nu’u² (village mayor) anticipated a tsunami after such a strong earthquake, based on training he received through the government in his role as mayor. He feared that if he rang the village bell, people would be confused and run

² The role of the pule nu’u is to serve as a liaison between the village council (or fono) and the central government. The person (usually a man) who serves in this role retains his own position in the village hierarchy, with no additional authority bestowed upon him. (see Va’a, 2000; Riddell, 2006 for a full description of the pule nu’u)
toward the ringing (which did occur in some villages). Instead, the Amanave mayor used
a bullhorn to shout explicit instructions to evacuate to higher ground. The result was
similar to Fialolo; every life in the village was saved.

The tsunami was not the only source of damage: the earthquake damaged the
geophysical stability of some areas of the island, in addition to infrastructural damages in
the community. After the earthquake, there were rocks and debris rolling down from the
mountains. The severity of the earthquake was a shock, as it was the worst earthquake in
living memory. Many were afraid:

“And then, we are thank to the lord because who knows if this mountain will fall
down, cover all us.”

“My house, this house would be, I’d be, maybe, falling down. Too much strong
that time. And I told my, my daughter over there and my kids, go outside, go
outside, save the life because maybe I think maybe this house be destroy or what,
the strong the, the, the earthquake.”

While the strength of the earthquake was a shock, many still did not suspect that a
 tsunami could be imminent:

“At this time, nobody ever thought of having a tsunami after this big earthquake.”

“So as soon as about two or three minutes I was calling up the house to tell her to
hurry up, that’s when I hear a big sound from the ocean from right behind me and
people was yelling and screaming, ‘oh here comes the big wave!’ and I thought, I
wonder what big wave is that?”

This was the first time in living memory that an earthquake this strong had hit
near American Samoa. The islands had experienced smaller earthquakes over the years,
but nothing as strong as this. Many believed that this was the first time the island had
experienced a tsunami, and this was true, to some extent. Some of the older respondents
recalled a tsunami in 1960 where the wave covered the roadway with a couple of inches
of water. Pararas-Carayannis & Dong (1980) report 60 tsunami events in the Samoan
islands between 1837 and 1980. So while this was not the first tsunami event in living
history, it was certainly the first event of this magnitude, and previous events not been
incorporated into oral history. Thus, living history may not have prepared members of
the community to expect a tsunami.
Impact on the relationship to the sea & livelihoods.

There are conflicting reports regarding the way the people of American Samoa regard the sea, in this post-tsunami world. Some report that fear of the sea is still an issue. However, the majority of respondents reported that most people avoided going back to the sea for about 2 months after the tsunami and then resumed their normal activities, fishing and swimming, but with a greater awareness of the strength and power of the sea and the dangers it poses.

Participant: “and ever since then everybody doesn’t want to go swim no more. Interviewer: Right, right. Participant: They were kind of like, you know, afraid of, you know, what might be happen. Interviewer: Ah, how long did that last? Are people still afraid? Participant: Uh, probably a month, yeah, or two month. Interviewer: And then, um, and then after that people just… Participant: Yeah, they just kind of like, … and just go ahead and do their own thing. Interviewer: And people were able to go back, and so people are back fishing and, and swimming again and, um, but they’re more aware of, of the danger? Participant: Yes, of the danger and they would know what to do if something does happen.

This respondent initially seems to be reporting that fear still exists, but then explains that this fear and avoidance of the sea only lasted one to two months. When asked whether this fear still exists, another participant summarized:

“I doubt it, because if so, then there would have been like, you would hardly ever see any people at the beach or go fishing, I think, I don’t think it’s… it’s made more people aware of it, but it’s, it’s in terms of like affecting their livelihoods, or how they go about their, no, I don’t think so. Maybe just the elderly, because they’re more traumatized by it, but, uh, I can’t speak for everybody else on the island, yeah? Because that, I would think if it were, my aunt would not be sleepin’ out here [in her home by the water] anymore.”

Livelihoods were undoubtedly disrupted by the tsunami. The underwater ecosystem was damaged by the force of the waves, disrupting fish populations, and therefore, subsistence fishing. Additionally, some fishermen, whose fear had led them to abandon fishing, have turned to subsistence farming, or have been seeking other types of work. Those who were unemployed prior to the tsunami due to the closing of the Chicken of the Sea cannery were at an even greater disadvantage, as they had been
seeking work prior to the tsunami and may have already been suffering economic hardship. Employees of businesses that were destroyed by the waves (such as the shops at the plaza, as well as a tool shop, sewing shop, cloth shop and snack shop, all located at the back of Pago Pago harbor) also found themselves out of work, with little opportunity to find employment elsewhere in the weeks and months following the disaster. Those businesses would take time to rebuild (if at all), and on a small island, the number of available positions elsewhere was limited. Many relied on remittances from overseas relatives, predominantly in Hawai‘i, the U.S., Australia and New Zealand, to get by while seeking to rebuild and find work. Family members overseas also sent shipping containers filled with goods needed that were not readily available on island, as supply and demand were at (or beyond) capacity during the immediate recovery phase.

The topics discussed above have dealt with the objective aspects of the tsunami event, including the impacts of the earthquake and tsunami on the physical infrastructure of the island, as well as the impacts on observable behaviors related to the sea (fishing, swimming) and people’s livelihoods. Next, I will discuss the subjective impacts of the event, namely causal attributions (what the people believe about why the event happened). From there I will present information on social factors such as the socio-political framework and systems of communication and coping, in order to understand important contextual influences that shaped these beliefs. Finally, information related to people’s causal attributions and the pre-existing socio-cultural framework will be integrated to better understand recovery, as well as the preventive and mitigative actions that were in place prior to and those that have been implemented since the tsunami.

Beliefs about Causal Attribution: The Role of the Faith Community

A devoted (predominantly Christian) community, much of social life in American Samoa is organized around church activities. There are men and women’s groups, and youth groups for socialization; choir practice for adults and youth occur several times per week. The social hierarchy within the church mirrors that of the village; those with leadership roles in the village often have leadership roles in the church. Prayer is incorporated into the daily life of the village and the family. Every evening a bell is rung three times to indicate evening devotions (prayer/curfew) – the first indicates that one
should prepare to pray or head towards home for evening prayer. The second indicates the start of prayer; wherever one finds oneself, s/he is expected to sit down and pray. The third bell indicates that evening prayer has been concluded. (For a brief description of Church life in Samoa, see Tuiavii, n.d.) It is also important to note that the Church has evolved as a source of education, as the establishment of mission schools marked the initiation of the formal education system (American Samoa Department of Education, n.d.). The *faife’au* (pastor) is regarded as a respected member of the community and provides support and guidance, in addition to serving as a social and educational resource.

As the villages and broader community of American Samoa began the arduous process of recovery, they struggled with understanding what had happened to them, and why. Naturally, many people turned to their *faife’au* to interpret what had happened, to provide comfort and assistance in coping, and to provide leadership in beginning to move forward. As one *faife’au* explained:

“So when the religious side came in we’re the ones to come in and confirm, affirm whatever we believe, it’s God’s curse or it is not God’s curse, we are the ones it falls upon.”

One *faife’au* explained his experience in responding to the questions posed to him by his congregation:

“Was this God’s doing? Was it God’s wrath? Or if it’s God’s love and how is God’s love shown in this, this, this ordeal that we had to go through.”

Thus, the way that the *faife’au* responded to their congregations was crucial in shaping the disaster experience and its meaning in the minds of the people. The importance of this role is not unexpected; the hierarchical social framework (described below), with its roles and scripts for leadership, is intact in both the socio-political and religious settings. *faife’au* had a strong influence on beliefs about causal attribution, and thus on the disaster and recovery experience of the communities. However, that is not to say that there was a unified set of beliefs across communities. Because *faife’au* of different congregations and

---

3 The *faife’au* is an honored spiritual leader, but his influence remains external to the political life of the village (J. Mayer, personal communication, March 1, 2012).
villages interpreted the event in various ways this, in turn, led to multiple sets of beliefs about what caused the tsunami and why the tsunami occurred.

“*It’s the nature of the world.*”

Some believed it was a geophysical event, a function of plate tectonics and displaced seawater. Whether or not the conception of these mechanisms was fully articulated is irrelevant. What is important is that some members of the community understood the event as completely unrelated to themselves as individuals or as a community; rather, they believed the tsunami was a natural event that occurred because “sometimes these things happen on our planet”. Even these causal attributions reflect a deep connectedness to faith, as natural causes were explained by asserting that the event was *not* related to God:

“I believe it’s not from God… That the nature of uh, of the world, ah? Yeah, that’s right. I tell them it’s not, uh, you think about it. You think about the love of God, but God don’t like to give the tsunami to us.”

“They’ve been taught very well that these are natural causes… it’s not like a curse or something like that but they were taught that because natural causes, there’s nothing we can do.”

“We didn’t blame God. It’s just like a disaster. … But, you know, that was not God taking that [lives]. You know, it just, it’s just, uh, neutral. It’s like a natural something that, uh, it can happen on the earth.”

One participant reasoned that the fact that there was not an explicit message from God (like Noah had received before the flood in the Bible) was evidence that the tsunami was not an act of God. While some took this stance of God’s neutrality and the inevitability of natural disasters, others of the faith community believed that God played either an active or a passive role in the event.

“This is the first time that happen in here, so, so who knows God’s working.”

“*It came from God*/ “*It’s a curse from God.*”

There are some whose descriptions of the tsunami reflect an underlying belief that God was responsible for the event. Some believed it was a curse from God, who had sent the tsunami to punish the people for their sins.
“This is a curse, this is… Samoa did something bad and God is slapping us in our faces to warn us.”

“Everybody’s saying it’s a curse from God, we did something wrong, somebody did something wrong. So, who is to blame? Is it God or is it us?”

“Yeah maybe think about the God … It was all, maybe it’s the earth, yeah, maybe the God makes the earth, yeah. If the God was angry… the people is no good…”

When asked what most people believed to be the cause of the tsunami, one participant shared:

“Oh, yeah, well first because of the earthquake, and because I don’t know (laughs), like because sin (laughs), too much bingo. (laughs) Yeah, really. Too much bingo.”

In American Samoa, Methodists are forbidden from playing bingo, but people were not abiding by this prohibition. The Methodist faife’au interpreted the tsunami in light of these transgressions: no one in the congregation plays bingo anymore.

Some believed that the people were being punished for sinning and not asking for forgiveness:

Interviewer: Did they blame God for doing this?
Participant: So what we blame who we ask God please forgive us.
Interviewer: Okay.
Participant: (laughs)
Interviewer: (laughs) Forgive us for what?
Participant: Forgive us if we had seen from you, you the one (laughs) who saw the people, so please for, forgive. Some people are okay, some people are dirty, God don’t want us. They pray but they guilty. And they had seen, but never say, “Please, God, forgive us.” (laughs) … Thank you for taking care, not if to forgive.

It is interesting to note that two of these participants laughed while discussing the tsunami as punishment for sin. Whether this is due to discomfort with the topic, embarrassment, shame, or the inclination that this matter is too private for discussion is unknown. However, the disinclination to criticize publicly and avoidance of negativity, discussed in further depth below, may shed some light on this point of interest.

In some congregations, the faife’au leveraged the tsunami as a catalyst to bring members of the congregation back to meeting social expectations for members of the religious community:
“He was [telling] the people that it’s their sins, they are sinning too much… He was even saying that the biggest villages here [Pago Pago and Leone] were the ones that got hit the most and they’re the ones with the biggest sins… He says it’s a curse. Uh, we are not doing, we are not following the bible enough. We are not following the bible enough and that is why we are sinning and this is [the result]…”

Thus, there is a belief among some that the reason the biggest villages were hit the worst (received the most damage, suffered the greatest loss of life) was due to the fact that these villages had greater sins. The sins that some believed to be the main reasons for God’s punishment included not keeping Sunday as a day of rest and prayer, (as evidenced by those who golf, drink beer and play bingo on Sundays). Accordingly, if the tsunami is seen as a curse from God, then according to the faife’au, in order to prevent such things from happening in the future, people must return to God, follow the Bible more closely, follow the teachings of Jesus more closely, and move away from sin and toward a closer relationship with God.

Despite the belief among some that God sent the tsunami because the people had drawn too far away from God, not one person I interviewed placed blame for the disaster on God. Rather, the responsibility was placed on the people for their sins. After the tsunami, members of the community and faife’au alike, reported that people drew closer to God, as evidenced by increased attendance at worship service, and a decrease in non-worship related activities on Sunday such as bingo and golf.

Participant: Even those people that said that this was actually a curse from God, it didn’t actually go away, it didn’t falter their faith but it made them, ‘okay, sorry God we are going to do what this pastor is telling us because we were cursed by you because we did so much sins so we are trying to get away from these sins and even though the approach that we went through it was our fault it wasn’t God’s fault in the first place’ and they were like ‘okay let’s see what we can do’. So, in both approaches…

Interviewer: In both instances it brought people closer to God.
Participant: Much closer.

“It’s a wake up call.”

Some pastors framed the tsunami event as a sign from God rather than a punishment. While the event was seen as originating from God, it was not seen as having been created as a form of punishment for the people. Rather, it was a message from God
for the people to draw closer to their faith. One faife’au spoke of the world as a gift from God, and the people are called to take care of it. Several mentioned the current state of the world with global warming and destruction of the global ecosystem. In their view, God sent the tsunami as a call to the people to take better care of the Earth. Here, the issue of responsibility for the event again lies with people for failing to care properly for the earth, and instead taking continuous action that degrades it.

“Prepare your soul.”

Some saw the tsunami not as an act of God, but rather as a sign of the second coming of Jesus, and thus as a reminder from God that the people should prepare their souls.

“It’s a warning from God. This is the first time it has happened, so it’s a warning to prepare for something worse.”

“God still loves the world. That is the other way God is testing if we still have that kind of faith.”

“You were suppose[d] to be prepared, always prepared that’s the main thing that Jesus says. Whatever happens always be prepared, whatever comes, if you’re prepared your faith will not, your faith will always be solid. So, it was like a challenge to them… if things like this falters your faith then you shouldn’t be a Christian in the first place.”

“The bible tells us that it’s a sign when Jesus almost coming, you know, the weather, when this is a sign, the bible tells us there’s a sign, when you see a sign, you better [be] ready, you know? Prepare your soul, you know? Everything’s be sure that the end of the time, you know?... But if you are not ready, believe me, you cannot end up in the heaven.”

So for these congregations, it was a call to examine their lives, and to make preparations for their next life, in heaven. Those who were falling away from church attendance were encouraged to renew their faith, to renew their commitment to their congregation.

The Role of Cultural and Religious Values and Practices in the Disaster Experience

The Socio-Political Framework and the Disaster Experience

In addition to understanding the role of faith in interpreting the event, it is crucial to consider the way that the unique socio-political framework and the embedded cultural
belief systems in American Samoa provide context for the disaster experience. The socio-political framework can be examined in two ways: power within a village and across villages. Each of these power structures and the social constructs that are integrally tied to their functioning must be considered in order to better comprehend the way the disaster experience manifested in American Samoa. Thus, each power system and its supportive framework of cultural beliefs and social customs shall be considered separately. First, I examine the socio-political framework, and then in the subsequent sections, the social systems of communication, coping, and social support that are embedded within this framework. These social factors provide context for understanding the way Samoan communities recovered from the disaster event, and prepared for and mitigated against future disaster risk.

I. Collectivist hierarchy within each village.

Social systems within each village are controlled by the strict hierarchy of village chiefs, or *matai*, which governs all social interaction. This hierarchy manifests in daily life as in the form of protocols for: behavior, communication, and autonomy of each member of the village. Concomitantly, there is a collectivist focus on family and village well-being over that of the individual. Behaviors that are not in line with these expectations or would reflect badly on the family name are strongly discouraged, and censured when necessary (see Freeman 1984). The hierarchical social structure affords minimal autonomy, as decisions about what is good for the individual exist firmly within the context of what is good for the family.

“Everything is thought out for us. Our lives are planned according to what’s good to the family name, the village name, the district name…”

Individuals are discouraged from voicing opinions outside of appropriate venues, and instead are encouraged to rely on the decisions made for them by those in power. Just as the high chiefs of the village consult with one another in the *fono* (village council), when making decisions about the welfare of the village, so too is the family *matai* expected to

---

4 The role of the family *matai* is *tausi*, to protect, care for, and provide for all the members of the ‘*āiga* (extended family), and to represent the family’s interests at the village *fono* (council meetings). See Johnston (2010) for a discourse on the role of modern *matai*. 
operate in the best interest of the members of his family. Family meetings provide an opportunity for members of the ‘āiga to voice their opinions to the family matai (Johnston, 2010). However, once the family comes to consensus, all members are expected to abide by the decision that has been made (J. Mayer, personal communication, March 1, 2012; see also Metge & Kinloch, 1984). As a result, challenges and expression of dissent are minimized outside of the appropriate time and place. One participant described the result after she challenged the expectation of financial contribution to a chief in her village:

“My brother doesn’t take me to those kinds of meetings anymore. I’m not allowed anymore.”

Thus, there is an explicit protocol for when voices may be heard, and when individuals are expected to concede.

Within the hierarchical structure, actions by members of a family are seen as reflecting on that family, that village, for both accomplishments and infractions. As such, behaviors that would reflect poorly on the family or village are reproached. Individuals learn at an early age to avoid doing anything that would bring shame upon their families or their chief.

“When you move to a small town, rural area, small island, everybody is concerned about their credibility, their family name.”

“Think about your family’s name, think about your village, think about your church… It’s always that pride.”

Responsibility to one’s family and village thus may inhibit expression of individual (especially dissenting) opinions, especially in public. Here, two participants share their perceptions of the ways this social expectation manifests for the individual:

“We don’t think for ourselves—I’ve spoken earlier about critical thinking. We’re not good at critical thinking. Our education system teaches us to think critically, but when we go home at the end of the day, we’re told what to do. ‘You will go to church whether you like it. That’s not a good person for you to see’… everything is thought out for us… You do things because you have to or because of what people will say. So when you ask someone, ‘Why are you doing what you’re doing?’ … ‘Well, I don’t know, ask my mother, she knows.’”

“There are a lot of disciplinary [sic] in the Samoan culture and ‘you sit down and I will tell you what to think, how to feel’… It’s because of the whole matai
system. One person talks and everybody just keep it to themselves, depend on that one person that’s going to make that decision for everybody.”

The information shared by my participants indicates that this hierarchical system tends to foster de-individuation: as individuals learn the value of their place in the family and their responsibility to it, they are discouraged from seeking self-oriented direction and voicing dissenting opinions. Instead, individuals are encouraged to value the family’s welfare first, and to let those who are in leadership positions make the decisions he or she (often he) believes are in their best interest. Those who would challenge authority are discouraged from doing so, and if they continue to do so will face exclusion from such forums (as the participant above described). Individuals are expected to concede to the final decision, and not to ask further questions or demand different answers if they are displeased with the outcome. This collectivist approach to family and community life as opposed to a focus on the experience of the individual, reinforces the social hierarchy. It is important to note that this is not necessarily a malevolent suppression of independent thought; rather, these patterns may be a necessary component of maintaining a functional hierarchical system and, as such, are an expected/accepted part of day-to-day social functioning.

This hierarchical system played a pivotal role in shaping the rebuilding process. Many participants spoke of an unequal distribution of aid within villages. In some villages, those with familial ties to the village chiefs were reported to have received more aid than those without such relationships. Thus, it seems that the hierarchical system disadvantaged those who lacked social resources, and aid was distributed not based on need but on status (consistent with the rule of relative advantage as discussed by Kaniasty & Norris, 1995). Volunteers with the American Red Cross reported concerns over distribution of aid that were consistent with these claims (C. Iha, personal communication, April 27, 2010). While Red Cross protocols call for distribution of goods directly to disaster victims, the hierarchical system in American Samoa called for goods to be distributed through village chiefs, who retain responsibility for all within their village. Red Cross complied with requests to proceed in this manner in an effort to be sensitive to cultural norms in the affected area. The effect was that many who were in greater need of resources did not necessarily receive them. One participant shared that “It
was more about who you knew than what you needed.” There were also reports that some who were affiliated with the Red Cross received more aid than those without these connections. This was not an island-wide phenomenon, but rather localized to some areas. However, these occurrences were frequent enough to be mentioned repeatedly by the majority of my participants. Participants also reported that such inequitable distribution of aid was reported by local news outlets in the weeks and months following the tsunami.

“You know, that’s what you were hearing on the news, that’s what people were saying, people were disenchanted with the assistance, even with FEMA, you know.”

This inequity in receipt of aid led to division among the people that seemed to reinforce the existing social hierarchy, again consistent with the rule of advantage. Those with greater social capital received more aid, widening the gap from those who were in greatest need. There were reports of people receiving assistance who were not true victims of the tsunami. This may have been exacerbated by the Red Cross mandate that all who were affected receive the same aid (i.e., there can be no differential distribution “if one gets, everyone gets.”).

“Yeah, then they [Red Cross] go ahead and they dispense it to everybody. Which is, which sucks cause it, most of the people that affected that lived around this area like, most of the stuff is kind of rationed where they wanted to give it to everybody that’s in the village but not everybody was affected, cause we had people living up the mountain area and like they got stuff, you’re like ‘why are they getting stuff? Just cause everybody wants the free stuff?’”

There were also complaints within the community about how families who received aid spent the money, and whether or not it had been spent to rebuild or used for other purposes. There were widespread reports of comparison and competition when it came to who received aid and how much they received.

Although participants spoke of dissatisfaction of how those in power distributed aid, there was no evidence that the hierarchical system was disrupted (either by the actual tsunami event or its aftermath). There may have been disruption within families as members sought to rebuild on communal lands, but, according to the participants, the power structures within each village were not shifted in the aftermath of the event, and
there was no evidence of shifting of any chiefly titles. As shall be demonstrated next, power structures among villages also remained unchanged by the event.

II. Decentralization of power across villages/village autonomy.

While the social structure within a village entails a hierarchical system of social regulation, the power structure across villages is decentralized. Each village maintains its autonomy, without interference from other villages. However, as a territory of the United States, the traditional Samoan governing systems have shifted somewhat. The territorial government consists of a Senate and a House of Representatives, as well as a formal court system. Territorial leaders include the governor, as well as a non-voting member of the U.S. House of Representatives. While these governing structures are similar to U.S. states, the territory is unincorporated, and thus retains its own constitution. In accordance with Samoan tradition, villages largely maintain their autonomy:

“Our Samoan culture is hard to explain to people. Because even we are Samoans, each village has his own rules. Pago never rules Fagatogo.”

“Every village does their own thing. So, whatever happens here in Pago Pago may not work with another, Leone.”

This decentralization of power means a diffusion of responsibility for disaster preparation and mitigation.

In accordance with this decentralization of power across autonomous hierarchical villages, village mayors (pule nu’u), are utilized as gatekeepers for disaster preparedness, safety and education programs. As such, prior to the tsunami, Homeland Security held trainings for pule nu’u, who were then responsible for implementing disaster preparedness strategies in their home villages. Looking to village leaders as gatekeepers and caretakers of their villages is a culturally appropriate way to gain access to members of village communities across the island. However, this diffusion of responsibility led to differential implementation of disaster education and preparedness strategies in different villages. While at least one village reportedly had three tsunami evacuation drills prior to the tsunami, several participants reported that their villages had had no evacuation drills of any kind prior to the event. In addition to differing numbers of evacuation drills, members of different villages had varying levels of knowledge about what to expect in
the event of a tsunami. While some knew to expect a tsunami after such a strong earthquake, some were completely unaware of this possibility or its implications. Thus, both educational and practical implementation of disaster preparedness programs varied across villages. This is clear through the following discourse:

Participant: Well, I heard like on the news, for some villages, they have their own, their own, uh, what’s it, drill? Village drill? Like the ones that a lot of people, they said they were lucky because the village mayors, they had the drills way before the thing happened, the tsunami.

Interviewer: Okay, so some were more prepared…

Participant: Yeah, they said they, once they started hitting the bell like a certain way, like rapidly and stuff like that in an urgent manner, that’s when you know you should make your way up the hill, like help the elderly or the minor, the little kids, the minors, and stuff like that. And they knew all their evacuation routes, where to go, and stuff like that, like, yeah.

Interviewer: So some villages had that and some didn’t?

Participant: Yes.

Interviewer: And there’s no way really…

Participant: Like ours, ours, we didn’t have one.

Interviewer: You guys didn’t have one.

Participant: No.

Interviewer: And do you know if, um, if they’ve been doing things since then?

Participant: Well, I hear, but I’m not sure if they are. Well, for us, uh, no.

Interviewer: No.

Participant: Except for the elementary school.

Differential implementation of disaster preparedness at the village level may be due to several factors, including village size and geophysical area as well as involvement of key village leaders. It may be that smaller villages are easier to coordinate, as it may be easier to gather all village members or at least one representative from each family. In smaller villages, there is also more likely to be only one escape route, whereas in larger villages, specific location within the village may determine the quickest, easiest route to safety. For instance, the large village of Pago Pago spans the entire harbor area. Escape routes on one side of the harbor will differ from escape routes on the other side. It also may be more difficult to coordinate a village-wide drill in larger villages, due to the logistics of evacuation as well as the sheer number of families within the village. However, as a result of village autonomy, no mechanism of governance monitored to
what extent educational outreach activities for preparedness and mitigation were actually implemented in each village.

**Social Systems and the Disaster Experience**

From the data collected it is clear that the socio-political framework shaped and provided context for the disaster experience. It is also important to understand the socio-cultural systems that are embedded in this framework and that guide interpersonal interactions. Three systems emerged from the data: Systems of Interpersonal Communication, Systems of Coping, and Systems of Social Support. The data showed that these systems shaped the disaster experience and the recovery process.

**I. Systems of interpersonal communication.**

a) Communication style.

The first aspect of interpersonal communication is language. The Samoan language contains a plethora of dualities and nuanced meanings. For instance, the word for “go away,” *alu*, also means to push or encourage; *fa'alavelave* can refer to both a joyful and a mournful celebration. These two examples indicate how one word can bear both negative and positive connotations, depending on the context, the speaker, and the content of the message. Missing one of these pieces of nuance could change the meaning of the message that is received in its entirety. As a result, communication is not always clear or direct. The following excerpts speak to this duality in meaning and intention:

“We’re very guarded. You know, we’re very guarded and we will say, uh, we will say what you expect us to say rather than what we really feel because it’s very difficult to identify what we’re really feeling.”

“Yeah, there’s not that much communication, that’s what it is. We don’t communicate much in the family… we don’t talk about it.”

“But nothing was really discussed. Everything was quiet. You’d ask somebody, ‘Well, how are you feeling?’ and they’d say, ‘Oh, I’m fine, I’m fine,’ you know. It’s like nothing was happening. So everything was just kept under the rug. Nobody ever talked about it. Even now, nobody has ever talked about it. So it’s just still hush-hush. Nobody wants to talk about how they feel, they’re feeling. I talk it, about it all the time, but you know, my family doesn’t.”
Thus, in addition to the linguistic nuance in communication, there is a disinclination to communicate openly and directly. As the above participants indicate, Samoans communicate in a way that provides what they believe is expected of them. Superficial interactions are aligned with social expectations, but this does not necessarily reflect the underlying reality of the situation. This is also evidenced by the use of metaphors, whereby the listener must discern the intended meaning of the speaker through interpretation of the metaphor. It may be that a person who is embedded in the social framework is better able than an outsider to discern these nuances of communication, a phenomenon discussed by LeVine et al., (1994). These practices in interpersonal communication manifest in two ways that are pertinent to the experience of the tsunami: disinclination toward criticism and avoidance of the negative.

b) Disinclination toward criticism.

As discussed above, voicing of dissenting thoughts or criticism is discouraged. This disinclination toward criticism may be a mechanism that prevents dissenting opinions simply from being voiced (i.e., individuals form and hold dissenting or perceived negative opinions but do not share them). It is also possible that this socially embedded expectation renders critical analysis (an analysis, for instance of negative factors in a particular situation) moot and therefore an unnecessary communication tool, as the participants’ above comments on critical thinking seem to indicate. This disinclination toward criticism was elucidated through the following discussion regarding the installation of the tsunami warning system, which was still incomplete at the time the research was conducted, a fact about which many of the members of the community were displeased:

Participant: If they really wanted to implement it, they would have done it.
Interviewer: So there is a mechanism for that happening, but you haven’t observed it being implemented.
Participant: No.

The people were displeased that the project had not yet been completed, but it would be counter-cultural in American Samoa to publically make demands or place pressure upon

---

5 The tsunami warning system was in place and first tested in September 2011, on the second anniversary of the tsunami.
governmental leaders, as these would be overt acts of defiance, criticism and placing of blame, which are both implicitly and explicitly discouraged, and considered poor form. While, in some contexts, demands of the government (more training, more educational outreach, more explicit evacuation signage, installation of a functional warning system), may be more likely to be addressed if concerns were voiced publically, due to the discouragement of dissent and the hierarchical system within American Samoa that gives voice only to those at the top, it is unlikely that dissenting voices will be heard, unless community leaders also take up this call. As such, government leaders may not be confronted for failure to implement sufficient preparedness planning. This is evidenced by the following comment by one participant:

“We’ve not been called to the table again, you know, to say, ‘How do we go?’ or, ‘We did really badly.’ That’s why we are not coming to the table. Because we would then have to sort of either point the finger, and we’re not good at conflict resolution… but that’s what really stops us from coming to the table.”

“And, and I say that respectfully, really truly, I say that respectfully to the organizations, to the government, to the federal government, because no one’s to blame because we never talked about this. And, once again, we don’t talk about these things when the disaster’s finished. And we never really reevaluated, um, how it went or how any other disaster is going to happen in the future.”

This second excerpt also touches on the common problem in disaster management, whereby post-event evaluation does not result in changes to operational and coordination procedures for future events (Donahue & Tuohy, 2006). Thus, this phenomenon is not unique to American Samoa, but a common experience among disaster-affected communities.

c) Avoidance of the negative.

A related construct to the disinclination toward criticism is the general avoidance of negative topics, emotions and events, which are neither discussed nor, at times, even acknowledged, and are actively avoided.

“In fact, people are going to be saying, ‘Isn’t it a little bit tough that you’re asking these questions and bring things up again when we’re trying to, you know, forget?’”

“It’s hard to explain when we think of the [tsunami], in the past. Because, some of them, they died.”
“Some people don’t like to remember the dangers of that day.”

Throughout the data collection period, this avoidance of negative topics became apparent in several ways. Several participants avoided questions, answering part of the question and diverting again when prompted. There were also instances where upon being asked a direct question, the respondent answered a completely different question, or a portion of the question. For instance when prompted to describe the role that faith played in the way that an individual and her community recovered, one participant responded with a description of the community’s interaction with FEMA. It is unclear whether this was due to: the participants’ discomfort with the topic; reluctance to discuss negative events; belief that the topic was too personal; miscommunication of the question; or due to some combination (or none) of the above factors. (See Metge & Kinloch, 1984 for a commentary on Samoan communication style.)

II. Systems of coping.

In examining the way that communities coped with the trauma of the tsunami, three themes that emerged from the data can be categorized as “systems of coping.”

“Samoan healing? For Samoans I am going to tell you the truth, Samoans they’re, they’re the type of people that tough it out. They usually don’t talk about these types of things, psychological healing…they’re the type of people if you’re, you’re hurting just go sit in a room and pray to God, he will help you, God will help you. That’s the type of approach that we have in Samoa. Uh, the way we try to approach it as, as Christians, is we try to talk to them, we offer so many, um, counseling, we offer counseling but they’re not the type of people that shares a lot.”

This excerpt reveals much about each of the systems of coping discussed below.

a) Pride/focus on strength.

Related to the expectation of interpersonal communication that proscribes avoidance of the negative, is a focus on pride in one’s self, family, village, and community, as well as a strong aversion to showing weakness in any form. One must not show weakness, for it shames the family. This imperative to be strong, to not show weakness also serves to reinforce the de-individuation created by the social hierarchy (discussed above). This cultural construct serves as a proscription for coping.
“There’s that pride… it’s one of those non-spoken things. You gotta be strong, for Samoan person, you gotta be… you show that you are strong. That pride, that don’t show that they are weak… Inside there is that pride… ‘I am not weak, my kids will not be weak’.”

Those who express weakness are chastised for doing so, and not simply for showing emotions that are considered negative (and should therefore be avoided), but for displaying the weakness that those emotions imply, as this excerpt indicates:

“‘Why you such a weakling? … think about your family’s name.’ That’s, like I said, it’s that pride. ‘Think about the last name, think about your village, think about your church…’ it’s always that pride. Which is a good thing, I guess.”

It is interesting to note that here, the participant expresses the way that those showing negative emotions are chastised, and follows his comment with a positive frame, showing the reflexivity of both disinclination to criticism and tendency to frame in a positive way. This participant further elucidated this imperative to strength, referencing an interview aired on the local news that showed a mother who had lost several young children in the tsunami.

Participant: The dad [the woman’s father] is standing there saying, ‘Be strong, be strong.’ He’s scolding her.

Interviewer: For crying?

Participant: For crying.

Participant: Was right above her, was standing next to her… ‘Be strong, be strong, don’t, don’t be weak.’ He was saying that, this is on video you can even ask…”

Another participant shared the following when prompted about the way people went about healing after the tsunami:

Participant: “We talk to them, we try to, to heal the, we try to heal our own people from what happened.”

Interviewer: And how do you do that?


Here, the participant demonstrates the way the communities came together to support one another. He went on to describe that the sharing of stories was “not too really serious.” Instead, the approach was to:

“try to get the fun, ‘cause the more we get fun… the more we get fun, the more that we not think about it, and the more like we are, … uh, there was nothing happen.”
There were clear expectations about the sharing of stories related to the disaster event. The “making story” was not a deep, emotional processing of what happened, but more a glossing over of the event in order to get to a point where it was as if “nothing happened.” By joking, they minimized the impact that the event had, and set the tone socially that it was time to move on. This sharing of experiences is consistent with the informal *talanoa* form of communication described above, and is also consistent with the value of focusing on the positive in order to move forward. He goes on to describe what happened when other members of the community who had not yet told their stories joined their gatherings:

“And they cried. They cried and say their story. They cry, and here we go, ‘Okay, so what are you crying for?’ You know, that’s what we told them. ‘Why are you crying?’ The memories, they still have the memories from, from the time they got hit. And then we share our story with them. We told them, ‘Everything that you been cut down, carried by the waves, you know, almost dying, it’s the same thing that happened to us. We all affected, you know. But just thank God that we live’.”

Like the protocols for expressing dissent, there are expectations around when it is appropriate to show grief and sadness. For this participant, the continued expressions of grief and fear were *so’o*, or too much; those who were still grieving had exceeded the expected time and place for mourning, and were therefore encouraged to focus on the positive and begin to move forward. Thus, the pride in one’s strength and ability to move forward may serve to increase resilience for some.

For those who experienced severe psychological trauma, the aforementioned boundaries of a determined appropriate time and place for processing of grief may be too restrictive. There is evidence of ongoing post-traumatic stress symptomatology among some victims, as intrusive thoughts and anxiety continue to interrupt daily functioning. For those who are continuing to struggle with the trauma of that day, the imperative to be strong and to refrain from showing weakness may be difficult. One participant related that she doesn’t want to talk about it with people sometimes because she “can’t hold [her] tears, it’s very hard.” Here, the implication is that there is an expectation that she should not cry or show her grief anymore. As a result, while she still wants to talk about her experiences, she feels inhibited by the socially bound expectation that she should be able to be strong and move forward at this point.
Although the desire and expectation to be strong may become an obstacle to recovery for some, this cultural mandate for demonstrating strength helped one respondent to cope the day of the tsunami:

“I just imagined myself being strong that day.”

Therefore, the ability to spend time and talk story with others may function as a mechanism for healing. The reliance on the great strength of the Samoan people enables some members of the community to move forward. Thus, the pride/focus on strength imperative may facilitate or impede the coping process, depending on the way in which this coping mechanism is employed.

b) “Just move on”.

Implicit in the narrative above was the expectation that in addition to demonstrating strength and focusing on the positive, members of the community will move forward. Many participants, when questioned about how they coped with the trauma, related the following type of response:

“They come together and what, uh, things we’ve been doing in the future, yeah. They’re thinking about like that. … Look to the future, to move forward.”

While the culturally bound method for dealing with a tragedy is to be strong and to move on with life (as opposed to engaging in analysis and processing of the trauma espoused by U.S. psychological approaches), the people of American Samoa did send mental health professionals into villages to talk with people who had been affected. It is important to note the participants with whom I spoke were in general agreement that the American “talk therapy” approach was a concept that was strange and ill-suited to Samoan culture. People are unaccustomed to talking privately one on one with an unfamiliar person, and are unaccustomed to being asked directly what their thoughts and emotions are, let alone to share them with someone they may not know well, if at all. The mental health workers who went into the field in the wake of the tsunami asked questions about their levels of fear, anxiety, depression and other mental health
concerns. One participant shared her experience with the mental health outreach initiative:

“Well yeah, they asked questions… There was [sic] questions like, ‘if you were scared,’ like and stuff like that, I was like, ‘I wasn’t scared for myself, I was scared for my aunt.’ That was pretty much it. It was like, uh, ‘Are you afraid of the water now?’ I was like ‘Psh, no, why? It’s, it happens. Stuff happens.’ … You can’t just dwell on stuff, you gotta move on…”

This participant demonstrates both a desire to show personal strength, as well as the expectation that one should “move on”.

Once the waves had receded, the people of American Samoa promptly set about the tasks of rebuilding their communities and their lives. By not dwelling on the negative aspects of the event, they were able to focus on the tactical steps necessary to rebuild. In applying the cultural approach to loss (as discussed above regarding loss of a loved one: don’t mention the loss; focus on tactical planning; there is a time and place for grieving), the community had a pre-existing framework for how to deal with the process of rebuilding. To this end, the tactical approach of “Just Move On” may have helped to foster faster recovery for those who were not severely traumatized. If this is the case, it seems that the scripts (per activity settings theory) for recovery from loss of a loved one transferred well into the tsunami recovery setting, and people immediately set about moving forward.

c) “Turn to God.”

Faith is a central coping mechanism for the Samoan people, and is recognized as the appropriate outlet for feelings of grief (or other negative emotions). The community of American Samoa is a devoted Christian faith community, with vibrant congregations in each of the following denominations: Congregational Christian Church of American

---

6 A full analysis of the mental health care initiative that was deployed in the wake of the tsunami, its origin, its cultural relevance, its implementation and its effectiveness are areas of great interest but are outside the scope of this analysis. It is important to note, however, that these mental health initiatives were implemented. The ways in which these programs reflect the culturally bound coping mechanisms and communication patterns discussed above (avoidance of negative events and emotions, use of indirect communication, focus on strength and minimizing expression of weakness) are additional areas that deserve further investigation.
Samoa (EFKAS); Methodist; Catholic; Assembly of God; Seventh Day Adventist; Church of Christ; Church of Jesus Christ of Latter Day Saints (Mormon); Baptist; Calvary Chapel; Community Christian Church; Church of the Nazarene; the London Missionary Society (LMS); and United Pentecostal Church (Across Pacific & Asia, n.d). Tutuila is also home to a theological seminary, Kanana Fou, which is affiliated with the Congregational Christian church. When traveling around the island, one may pass several large churches in each small village; in fact, the churches themselves are often the most prominent structures in a village. Village life is intimately and inextricably tied to church life.

As such, one’s relationship with God is seen as a natural conduit for emotions that must not be expressed with others:

“So, in the culture, in the Samoan culture their approach to it, is just get together as a family and pray… Uh, if someone passes away or something like this happens, just tough it out, just have faith in God, that’s one approach. Have faith in God.”
“My mom’s a tough woman, anybody that dies in our family, she sees someone crying, ‘Why are you crying, why are you crying…. Isn’t your faith strong enough?’”

A strong relationship with God is both a goal in and of itself, and it additionally serves as an outlet for negative emotions that are avoided interpersonally. Diverting doubt, grief, sadness, and other negative emotions to the personal relationship with God serves as a conduit to avoid showing weakness to others, and prevents any potential disruption in the social fabric that such weakness might be considered to cause. Thus, the desire to be strong and to avoid showing weakness in front of others is linked to pride in the strength of a person’s relationship with God. These social constructs are integrated in such a way that each serves to bolster and inculcate the others; they are fully embedded in the fabric of daily life, and are accessed when facing troubling times:

“If you are sad about what had happened, um, just depend on God, God will give you the, um, strength to be able to comprehend what, what just happened.”

III. Systems of social support.

Life within the extended family unit, or ‘āiga, also comes with responsibility to care for one another. Two major systems of social support that were integral to the disaster experience are the desire to share hospitality and to support the family during times of need. That a portion of the economic base of the territory is supported by remittances from family members abroad also speaks to the connectedness of the family and the inherent desire and expectation to support the ‘āiga throughout one’s life.

1) Hospitality.

The fa’a Samoa, the Samoan way of life, is imbued with a deep and abiding sense of hospitality (a combination of the values of fa’aaloalo, respect, and tautua, selfless service to others), which is extended especially to honored members of the community, to visiting family and friends, as well as guests. One participant shared the following about that embedded sense of hospitality, the sense of care for one another in the Samoan community:

“We can call on each other… like that [snaps fingers]… It’s, you know, without question. That’s what you do. You know, and it’s still very strong in our community, that sense of you know, helping each other out.”
When the tsunami hit the shores of American Samoa, many of those who were hardest hit evacuated to family homes farther inland, where members of the ‘āiga provided food, shelter, and clothing, among other needs. In some families, dozens of members of the family sought shelter among their ‘āiga in the days following the tsunami. However, with repairs and recovery taking time, days turned into weeks and months, and the responsibility to provide hospitality, including food, to displaced family members for an extended period of time may have created additional financial strain for some.

Participant: Well, during the tsunami when the warning came, everybody was up at my house. Um, but we had to feed all these people but nobody would pitch in. So, my whole family had, I had to go buy food and, um, and feed everyone that was at my house, all my family members and everything. … Everyone comes to my house and we have to feed everybody.

Interviewer: So, how many people is that, would you say?
Participant: Um, well, let’s see. We had about, probably about 80 people at my house.

Interviewer: Wow. For how long?
Participant: With the kids. Um, two weeks.

Interviewer: Wow!
Participant: Well, we have a, um, we have, one, two, three, four, five houses, so, you know, everybody’s living room and in the rooms.

One aspect of the values of fa’alaloalo and tautua within the ‘āiga relates to the issue of communal land ownership. Post-tsunami, members of the ‘āiga who were affected may not have perceived moving to another family member’s home as hospitality at all, since the land is communal, and therefore all members of the family have a right to that land. Furthermore, with several houses on an area of communal land, members of the ‘āiga are more likely than traditional nuclear families to be able to host large numbers of extended family. Therefore, family members had not only a social expectation to provide hospitality, but also a responsibility to provide housing within their portion of the family’s jointly owned land.

2) Fa’alavelave.

The fa’a Samoa also instills within each person a set of expectations for support which members of the ‘āiga are expected to meet. When a situation arises that requires the support of the family, members are called upon to contribute food, money, or fine
mats in accordance with cultural custom. The term fa’alavelave refers to an event that causes disruption to daily life and results in a gathering together of the family. A fa’alavelave may be a joyful celebration such as a wedding, birthday, or bestowing of a title; it may also occur after a mournful occasion such as death. Such occasions are often marked by a large gathering together of family and friends, who must be fed, and appropriate cultural customs are often observed, such as the presentation of fine mats to honored guests. The fa’alavelave provides an opportunity for family members to gather, to provide support, to talk story, to contribute by cooking or making preparations for the event, and to show one another their care and concern. It is a ritualized mechanism to begin the process of healing and moving forward after an event has disrupted daily life.

This embedded cultural construct provides a framework for dealing with expected, but disruptive events:

Participant: Fa’alavelave is, like, it’s a disaster… So, fa’alavelave is disaster, but we have come to calling, we’ve come to call weddings, funerals, and anything else that we come together to celebrate. Graduation, you know, bestowing of titles, um, birthday parties or, you know…

Interviewer: So all of these [types of events] are all being called fa’alavelave? So, is it more, has the, has the definition been moved more towards, um, a, a big event that causes change?

Participant: Stress. And stress. Lots and lots of stress. We’ve used fa’alavelave to, to describe something that’s very precious to us. You know, why is it stressful when your child gets married? Because the whole damn, you know, village has to be invited!

Here, you see the implication that the constraints and expectations of the social system and its hierarchy have the capacity to create additional stress within the context of the event (as described by Tui Atua, 2009). According to one participant:

“You know, it’s more coined toward big gatherings, when people come together for weddings and funerals… and then you’ve gotta give $200 to the chief… uh, because we’ve gotta make $5,000. So your family gives this much, your family gives this much, you know, no, doesn’t matter if you’re struggling and you’re having problems. You little chiefs, you’ve gotta come together and get that money together because we’re having a fa’alavelave.”

This expectation of financial contribution may be a burden to members of a family without available funds, which may create a tension within the family between those who are unable to contribute what is being asked. A fa’alavelave, then, provides an
opportunity for gathering and support, but is often costly and may be a source of additional stress for the family as it is imbued with strict expectations for involvement and contribution of family members.

In the context of the tsunami, the event itself was a *fa’alavelave*. Nested within the community-level *fa’alavelave* were the smaller *fa’alavelave* events experienced by villages, congregations, and families. Families engaged in much of the social support aspects of the *fa’alavelave*, coming together in the days and weeks following the event to cook, talk story, and provide support. Additionally, families and communities worked together to begin the physical tasks of clearing debris. However, the *fa’alavelave* construct for collection of monies was not employed in the same way in the disaster recovery process. While it may have occurred in some families, when asked whether families were expected to help other family members rebuild, the following conversation emerged:

Participant 1: You know, um, some families will help each other out in building the house again, and other families will let them do it themselves.
Interviewer: It’s so interesting when you say that, you know, for, like, a graduation or for a birthday or for something that is a regular event, it’s a, it’s a big event, but it’s an expected event, for instance, that there’s so much organization around who contributes and how much they contribute, that in an unexpected *fa’alavelave* like a disaster, that that same rule didn’t seem to apply.
Participant 1: No.
Participant 2: No, it didn’t.
Participant 1: It didn’t.
Interviewer: It is interesting.

*Fa’alavelave* support systems were activated during the recovery, but contribution imperatives did not emerge in the same way during rebuilding. However, while the logic model may not have been applied to the post-tsunami rebuilding process, there is significant indication that villages are able to collect sufficient funds for construction/renovation very quickly, when deemed necessary:

“*We can get a church building up in a matter of three months. We can raise up to sixty, eighty, one-hundred-thousand dollars in a small community, and you wonder where the money comes from. People will give willingly. And they will get a church up like this [snaps fingers] with no loans sometimes… So, why is, then, that you’re right? Why is it that we can’t apply the same principles to responding to a disaster which we have every, maybe every two, three years.”*
While the *faʻalavelave* concept literally translates to “disaster”, the protocol/scripts for funding an expected *faʻalavelave* did not seem to have been activated to fund the rebuilding process. Alternatively, these protocols for contribution may have been activated, but the capacity of the community may have simply been overwhelmed by the massive scale of the event.

**Systems of Disaster Management**

Now that contextual political and social systems related to the disaster experience are better understood, this section describes the disaster preparedness and mitigation aspects of the tsunami event.

**I. Disaster preparedness.**

Disaster preparedness relies universally on both awareness and educational outreach. As an island territory, the existence of a tsunami warning system and evacuation routes are also crucial to understanding the disaster experience in American Samoa. These four aspects of preparedness are described below.

**1) Awareness.**

The level of awareness about the possibility of tsunami and all its inherent implications varied widely across the island. While some members of the community had the benefit of on-the-job disaster preparedness training, the majority of people did not know to expect tsunami, and therefore were unprepared, and without knowledge of safe evacuation routes, ill-equipped to escape the waves.

“Most of the Samoan people did not know the tsunami will come.”

“I don’t know where to run.”

Participant: So, I do believe that they didn’t do any exercise or do any drill, you know, to notify us, um, or the people in my village if there’s a tsunami then how they can act when…what to do when thing happen. I don’t think there, I don’t think there was no, any … drill was done. There was, but, uh, just like, uh, just like people that, you know, they work for private companies, and they, they want, they want their different kinds of business and organization. … And those company where those people work at, I think they are really conduct their own,
um, um, uh, it’s like, a seminar, uh, for them. So, they pick up from there. They pick up from, from there, where they work, they pick it up from there.

Interviewer: So, but the rest of the people in the community wouldn’t know that?
Participant: Wouldn’t know that.

The experience of the tsunami and the implementation of outreach programs post-event have increased levels of awareness and preparedness:

“I think everybody’s like really, really good and being prepared and knowing what to do, they’re very aware. They won’t, once they feel a little tremor all the cars, you don’t even have to listen to a, a siren or anything everyone starts going up.”

The people no longer wait for a warning (as some participants indicated happened the day of the tsunami) before moving uphill when there is an earthquake. They move to safety and then listen to the news reports.

“As of right now…small, small shake, we still leave. We evacuate, and we wait for the news. So, by the time the news come in, our family’s all in the safe area. That’s what we doing.”

Participant: Uh, the first change is that people are now aware of what’s going to go happen… you know, they know what to do, as soon as you hear the bell ring because the, uh, they were supposed to bring, uh, the alarm…

Interviewer: The tsunami warning system?
Participant: Yeah, and I don’t know if it ever got here or not.
Interviewer: Okay.
Participant: But, now they’re using the bell, no matter what time of the day, they ring that bell, then everybody realize that it’s an emergency, you call that, and then, uh, other people were ready, prepared, packed, they had an emergency pack, especially in our church, that’s, that’s what we really, uh, being prepared of, emergency pack, as soon as you hear that bell you just grab that pack and get out of here, you know…

2) Educational outreach.

As the varying levels of awareness suggest, the pre-tsunami level of preparedness also varied from village to village. Some people did not know to expect subsequent waves, and were caught in them after descending from higher ground when the first wave receded. Educational seminars on disaster preparedness were conducted prior to the tsunami, but many of the members of the community were still unaware of the possibility
of a tsunami and unprepared to respond/escape. Perhaps the educational outreach had not yet been fully integrated into the consciousness of the people.

For example, outreach and education programs regarding tsunamis and other disasters had been conducted in the schools. It was also reported that there had been outreach to religious congregations regarding disaster preparedness but several respondents reported that no presentation had been conducted by Homeland Security in their congregations. Despite this discrepancy, some government officials believe that the casualty rate was lower than it could have been because of these outreach programs.

Since the tsunami, multiple media outlets are being utilized on a regular basis in order to provide continual preparedness information to the public, including radio, television and print media. Inundation zones, evacuation routes and shelter locations have all been publicized widely since the tsunami. Community members have been advised to create survival kits for their families for 3-7 days including food, water (1 gallon per person per day), a flashlight, blankets and clothing, to sustain them until aid arrives. Additional recommendations are made regarding surviving the first few days after a disaster event. For example, people are advised to use disposable dishware to save water in the short term. The territorial management office also provides basic survival skills training, such as ways to utilize fallen coconuts that might otherwise not be eaten, as sustenance. During September, National Preparedness Month, the territorial management office reaches out to pule nu’u and their village councils to gain access to villages across the island, often meeting in a large village fales (open air meeting houses) to talk to large groups.

One faife’au reported that representatives from FEMA made a presentation to his congregation regarding preparedness measures, emergency kits, and how to plan an
escape route, among other topics related to emergency readiness. The congregation was instructed to create emergency kits:

Interviewer: And what’s in that pack?
Participant: Mostly first aid kits, uh, canned food, clothing, and water, as long as something that can cover you within the 24 hour…

Here again, it seems that villages that have utilized religious leadership as gatekeepers have shown greater awareness among community members and better preparedness outcomes. In addition, village leaders are also seeking to cultivate preparedness among their communities:

Participant: Um, even our other relatives’ and friends’ neighborhood. We already, we made our own plan for next, next tsunami or whatever happen next time. Even the small shake of the earthquake, we already make a plan of that. And even now, if you go into them house or whatever, we already packed, like, um, your, your, your, your packed for everything. …

Interviewer: An emergency kit?
Participant: Oh, emergency kit, uh, one pair of t-shirt, pants, or, and then…um, light bulb.

Interviewer: Water and things like that, okay.
Participant: Water inside your backpack. Just put it there, you know. If things come, just grab your bag and leave everything and go. That’s what we do now. We, we have our, we have our kids already, even our small kids, and sometimes, um, you know those buoy for anchor the boat, a small buoy? We kept that now at the, around the house. So, if there any flood or, you know, the water flood or whatever… Just grab that and then, yeah, and then go. … We need some life vest so maybe sometimes this year, we’re going to get the help from them [marina patrol]. And then we distribute it to all these families.

**3) Tsunami warning system.**

There has been much debate about the impact that a functioning warning system would have had the day of the tsunami. The installation of a siren system was completed in September 2011, two years after the tsunami event occurred (Radio New Zealand International, 2011). There have been several impediments to the quick implementation of this warning system. The system that had been designed initially was not installed, and required revision before it could be implemented post-tsunami. The contract then had to be bid out before being awarded. Additionally, the issue of communal lands posed a unique obstacle for the community of American Samoa. Because the actual sirens
would need to be placed on private lands owned communally by individual families, siren installation required approval and negotiation that would not arise in communities where publically owned lands could be used for installation sites. The slow implementation of this system has been a point of contention. Here, a participant discusses the lack of a central mechanism for facilitating the installation of the warning sirens.

Participant: If they really wanted to implement it, they would have done it.
Interviewer: So there is a mechanism for that happening, but you haven’t observed it being implemented.
Participant: No.

A tsunami warning was issued over the television the morning of the tsunami, but families who did not have a television on in the morning hours did not benefit from that warning. A dedicated tsunami warning siren system would require no prerequisites (like a television or radio being on) for families to receive the warning.

One matai in particular was publically vocal about the failure of the government to provide adequate warning the morning of the tsunami. With an epicenter so close to the island, there were precious few moments for escape. Had a siren sounded, some believe more lives could have been saved, as those who had taken a few extra moments to grab a purse or car keys may have instead ran immediately for higher ground.

“If there was a warning, I think people are safe… But that day, the warning down here, I thank to all those village that they went and ring their bell…to warn. But this village, there was no warning at all. You know, it just as, after, right after the earthquake, all we were doing, we’re just look down the sea about what was going on. And then we try to warn our family, but it’s kind of late. It’s only, like, three minutes, here we go, right after the earthquake. But there was no warning at all.”

In communities where a village leader, often a matai or faife’au, ran through their villages urging people to run for higher ground suffered fewer losses (if any) than those villages where no warning cry was raised.

Since some people were confused as to the meaning of the ringing of the village bell the morning of the tsunami, a new emergency bell signal pattern has been developed. Different patterns of bell ringing now designate emergencies (4 gongs, stop, 4 gongs over 10 seconds) from more common signals for Sunday service or funerals. This is one of the most crucial lessons learned from the 2009 tsunami that has resulted in island-wide implementation of an alert system.
4) **Evacuation routes.**

Without designated routes to provide easy access to higher ground, the elderly, disabled, the very young and the infirm were at significant disadvantage in attempting to escape. For instance, in some areas, signs mark areas that are inside the inundation zone, such as this:

![Tsunami Hazard Zone Sign](image)

However, the signs did not indicate the actual routes to higher ground, as this participant explains:

“Like, yeah, they had like tsunami signs and stuff like “go to higher ground,” like but where? … Where? How do you get there? (laughs) You tell me to go, now tell me where, where do I go?”

The geophysical terrain of the island does not allow for easy escape. Designated safety areas for evacuation had not been communicated to the community. The day of the tsunami, roads were blocked, and there were no other alternatives to get to safety. Able-bodied adults and older children did what they could to help the little ones and their elders climb the steep mountainous, jungle-covered terrain. People are more aware now of what the escape routes are in their own villages. However, in villages with vastly different geophysical characteristics, escape routes are far from apparent or uniform. As a result, in addition to signs indicating the location of the evacuation zones, signs were in the process of being posted (in mid-September 2011) indicating safe routes for evacuation in each village as well as along the road between villages. (“Tsunami hazard zone sign installation underway”, 2011)
While it seems that the school system has implemented preparedness and evacuation plans, the status of such plans on the village level is variable. As discussed above, there have been educational outreach initiative programs, as well as outreach through media outlets, but the proportion of community members who have received such education and the extent to which the information has been absorbed into emergency planning at the village and family level is unknown. Many participants (of varying age levels, from villages across the island, with various employment histories) reported not having received any specific education or training, or that the only training they had received was through their place of work, not through their home village networks or their congregations. As such, it seems that the community-level outreach programs are not reaching some members of the community.

II. Mitigation against future risk.

Some families that have chosen to rebuild in their original locations are implementing measures to mitigate against possible future flood or tsunami events by elevating the foundations of their houses on poles, creating holes in foundations to allow flood waters to pass through, or are using sturdier materials and designs to withstand the force of a major event. Two evidence-based disaster mitigation strategies that are more
complex to implement due to socio-cultural factors in American Samoa include the establishment of buffer zones and permanent relocation away from inundation areas.

1) Buffer Zones.

Buffer zones have been instituted by FEMA with the aid of the Pacific Disaster Center, these zones have been determined from FEMA Flood Insurance Rate Maps (FIRMS) ("PDC creates mitigation plan," n.d.). However, due to communal ancestral land ownership and village autonomy, rebuilding within the buffer zones has not been completely prohibited. Some families rebuilt homes that were damaged or destroyed in their original locations along the shoreline. The reasons for this varied. Families without land elsewhere were left without options to relocate farther inland, or higher up on the mountainside. Some families had lived along the shoreline for generations, and being culturally tied to this land, wished to remain. That the Samoan custom dictates that family members be buried on family land undoubtedly contributes to this desire to remain.

“We are still down there. So, I don’t think, I think the government is not really…enforce us to move away from there, because I know, you know how Samoan culture stuff, eh? Because, you know, we can’t leave our land.”

As such, families who wished to rebuild in newly designated buffer zones were free to do so, but were then ineligible to receive FEMA funds for rebuilding. The tiny village of Poloa sits entirely in the buffer zone. Just a narrow strip of land bordered on one side by the sea and the other by sheer cliff, there is only one way out of the village, up a steep driveway. Relocation for the people of Poloa would mean leaving their family land entirely.
2) Relocation.

There were very few reports of families who permanently relocated to another village after the tsunami. One family from Western Samoa who was renting a home in Pago Pago moved to land in Tafuna after the tsunami. This is not surprising, given that this family had immigrated to American Samoa and did not have communal family land. Another family in Leone reportedly moved to another village. Aside from these few accounts, the majority of families who were displaced by the tsunami moved temporarily to family land outside of the impact area (but usually within the same village) while they rebuilt their homes. Once complete, these families returned to their original homesteads or to new homes on family land outside of the inundation zone in their original home villages.

There is a common belief that after the tsunami the village of Fialolo moved to the plantations on top of the mountain out of fear. Conversations with members of this village, however, reveal a different story. The village of Fialolo suffered infrastructural damage, but was fortunate to have experienced zero loss of life. The double earthquake event that had precipitated the tsunami had caused geophysical damage to the mountain behind the village, shifting the rocks and creating an irregular run-off pattern for rain. This has increased the risk of landslide, especially in heavy rain. It was these risks that precipitated the village of Fialolo to relocate to the top of the mountain. The only access route is a steep and treacherous climb up a path tread through the jungle and up to the top of the mountain. This is a difficult trek for the elderly and infirm, and does not provide a safe and quick escape route in times of danger.
III. Barriers to preparedness and mitigation.

Some of the contextual factors discussed above, including religious interpretations and social values may manifest as barriers to the implementation of disaster risk reduction strategies. It is possible that the “prepare your soul for the next life” concept addressed above could undermine investment in formal preparedness and mitigation efforts, as the belief in the need to prepare spiritually could overshadow the practicality of planning for future hazards in this life. However, congregations that have adopted this interpretation are now well prepared, with some preparing emergency kits and supplies which were regularly monitored within their church as well as throughout their community. Other congregations requested that government officials speak to their congregations about preparedness planning. Thus, it seems that the goal to prepare one’s soul does not preclude preparing physically for potential danger in these congregations. However, the issue of the tsunami as an act of God did create some barriers to mitigation in other communities.

Some families have rebuilt in the original location, and have not invested in measures to mitigate against future risk. For these families, the belief that the tsunami was an act of God makes mitigation moot. One participant explained that while some families are rebuilding their homes higher up the mountainside (a mitigative measure), he is uncertain this will actually make a difference in increasing safety or protecting against disaster (if it is sent by God):

“If you think about the God, yeah, all same things, because if the tsunami comes then what your house come higher or, or maybe higher maybe 10 foot up, yeah and if the wave, the tsunami comes and hit that, yeah, so you will get…. maybe I think, maybe all the same if you build a house like low or build it up high, maybe all the same… yeah… there is no difference.

Here, his reasoning indicates that efforts to mitigate against future risk (i.e. building one’s house higher up the side of the mountain, out of the inundation zone) may be irrelevant; if God sends a tsunami to destroy the village, it won’t matter where your house is built. This logic indicates the belief that if God has sent a wave to destroy it, it will be destroyed.
IV. The economics of rebuilding.

Progress in rebuilding has been made. Debris has been cleared. Some homes and businesses have been rebuilt. However, there is work to be done, as bridges and roadways are still in need of repair. Questions have also been raised as to how the government has spent the disaster recovery funds (McCarter, 2010). Many are still struggling to make ends meet. Unemployment, both due to the pre-tsunami cannery closing and the destruction of places of business by the massive waves, has crippled the recovery process. Those whose homes and businesses suffered damage from the earthquake were ineligible for FEMA assistance. Additionally, while the community struggles to rebuild, availability of funds has influenced the extent to which some families have been able to invest in future hazard mitigation.

“That the money is the biggest thing. I think if many of them had a lot of money it would do those preventive measures. Just in case something might happen again. But, I think many of them say we don’t have the money so best thing to do is just go up to the mountains instead of trying to build a new house on hill or do a new wall or…”

Many relied on grants from FEMA to rebuild their homes. Often, however, this amount was insufficient to complete construction. One family had received $15,000 from FEMA to rebuild their home. They rebuilt in the area immediately behind the home that was destroyed, between the original lot and the mountain. The FEMA money was insufficient to complete the house. When I visited, the house was still rough concrete, the windows had been framed out but not installed, and the 2nd floor was framed out in cement but otherwise uninhabitable. The family was still working to find sufficient funds to finish the house. Another participant’s family was living in the shell of their destroyed home. All of the windows were framed only, the roof was still in danger of falling, and running water had only recently be restored to allow for the toilet to function, but the sinks were not yet functional. These families were still living amidst the rubble of their former homes sixteen months post-tsunami.

Some relied on loans from the Small Business Administration (SBA) to supplement replacement of structural damage or personal property that was not covered by FEMA. The loans were problematic, specifically for the elderly, who were concerned about their ability to repay the loan in their lifetime, and if they were to pass before
repaying the loan, that their families would be burdened with repayment. Thus, the system for rebuilding that necessitates the use of loans disadvantages the elderly and others with diminished capacity to repay loans. These examples illustrate how economic factors continue to play a role in the recovery and rebuilding processes.
Discussion

It is important to acknowledge all of the things that went right in the days and weeks following the tsunami. There were many heroes that September day. Lives were saved because formal and informal leaders thought and acted quickly; neighbors risked their lives to pull one another from the treacherous waters; family members ran toward danger to rescue beloved aunties and grandmas; adults grabbed young children, desperate to get them to safety. Families gathered together, ate, talked story, prayed, and slept together in their fales under the stars. Then, in the true fa’aSāmoa, they quietly and resolutely went about rebuilding their lives (see Young, 2010 for a collection of stories about the experience of the “Galu Afi”). In order to better understand the experience of this island community, it is useful to examine the factors that both facilitated and served as barriers to tsunami recovery and future risk reduction, such as the socio-political hierarchy, and the role of faith. Several of these a priori and emergent themes are consistent with the existing disaster literature, including the importance of social networks (Blaikie, 2009; Kaniasty & Norris, 1995; Norris et al., 2005; Rigg et al. 2008), the role of socio-political systems in aid distribution (Kaniasty & Norris, 1995; Prashantam, 2008; Phillips, 2009), and the impact of future orientation on recovery (Norris, et al., 2002).

There is no doubt that the people of American Samoa tapped into the strength of which they are so proud to sustain them, and utilized their unique Samoan values, beliefs and practices as they sought to move forward. These relevant political and social factors will be addressed in order to provide context for the way the community approached both recovery from the tsunami as well as general disaster risk reduction. Due to the complex social structure of the communities in American Samoa, it is also helpful to examine the experience of the tsunami and the recovery process through the various social settings that comprise the daily lives of the people. Activity settings theory (see O’Donnell & Tharp, 1990; O’Donnell, Tharp, & Wilson, 1993) is a useful tool for analysis of the disaster recovery and risk reduction processes. An activity setting is an event characterized by collaborative effort, shared meanings, and reciprocity. The key components of each activity setting are the roles played by the people within such
settings, as well as the scripts for interaction, and the resources available. For example, a relevant activity setting would be weekly church service. This activity setting is comprised of features including: location (church building); personnel (the faife’au and congregation members); roles (faife’au is a leader who provides direction and support); scripts (guidelines or expectations) for behavior and interaction (faife’au will speak to the congregation; congregation is expected to listen attentively); and resources available to the group (social support; monies). The congregation shares common goals and collaborates to meet these goals. Activity settings theory provides a framework for understanding how these components of daily life played a role in the disaster experience and will be utilized where appropriate throughout my discussion of study findings.

Tsunami Recovery

Many factors impacted the way the communities of American Samoa recovered from the 2009 tsunami. These factors, unique to the local culture include: socio-political systems; cultural values such as hospitality; the role of faith; methods of coping; and the importance of utilizing existing coping skills for dealing with system disruption.

Regarding socio-political systems, the collectivist hierarchy and primary focus on the welfare of the group, may have impacted victims’ sense of perceived control, a factor found to be critical in disaster recovery. Norris (2008) reported that greater levels of perceived control (the extent to which one has the power to affect change) have been linked to better post-disaster outcomes. Freeman (1983) discusses the importance of usiusita’i in Samoan social life, a term he explains to refer “specifically to the action of listening to an instruction and then unquestioningly carrying it out” (p. 192). This imperative for usiusita’i may have served as a moderator of perceived control, and therefore, may have affected recovery. The social hierarchy also had a direct impact upon the distribution of aid in American Samoa. Similar to Phillips’ (2009) notion of “elite capture” and Prashantam’s (2008) description of the experiences of disaster victims within the caste system in India, the social hierarchy in American Samoa proscribed that aid would be delivered through village matai, not to disaster victims directly. In all of these situations, post-disaster distribution of aid mirrored Kaniasty & Norris’ (1995) rules of relative advantage vs. relative need, whereby those with greater social capital have
access to greater resources over the long-term recovery process. The decentralization of power across villages in American Samoa also ensured that a systematic check and balance system was not in place to monitor aid distribution. Concerns over these issues were raised repeatedly through media outlets during the recovery process and by participants in this study.

In addition to the role of socio-political systems, traditional Samoan values effected recovery. The concept of hospitality is a core tenet of the fa’aSāmoa (Samoan way of life); guests are treated with the utmost warmth and respect. The concept was elucidated for the researcher when a worker visiting a home to make a repair was offered a meal. This fundamental aspect of the fa’aSāmoa undoubtedly impacted the communities’ ability to recover from massive system shock. According to prior research, communities that leverage the power of their existing social networks have been shown to recover better than those that experience disruption of social systems (Blaikie, 2009; Kaniasty & Norris, 1995; Norris et al., 2005; Rigg et al. 2008). Arredondo, Bordes & Paniagua (2008) found that subsistence communities that were able to rely on extended kinship networks maximized shared resources. In Samoan culture, the ‘āiga functions on a day-to-day basis as a unit: most extended families live together on communally owned family lands, sharing resources regularly. Consistent with the value of the importance of hospitality and fa’alavelave, after the tsunami, families took each other in, and also looked after pālagi (white people) who found themselves without basic necessities. This embedded value of reciprocal communal support and hospitality was crucial in the initial days of the response, preventing the deterioration of social networks that have been shown to be important for recovery. However, over the longer term, the expectation to provide hospitality may have become burdensome for some families. This suggests that the application of constructs that operate functionally on a daily basis or to address short-term needs may create stress to the system over the long term (as Tui Atua, 2009, suggests).

Faith has also been shown to be an integral part of the daily life of the Samoan people. As the communities that were hit by the 2004 Indian Ocean tsunami demonstrate, socio-cultural and religious contexts serve as the lens through which a catastrophic event is viewed. Religiously bound belief systems may facilitate or inhibit
recovery: release of control to a higher power may foster hopefulness and future orientation, or it may alternatively undermine the perceived sense of control and mastery that has been shown to lead to better post-disaster outcomes (Norris et al., 2002). There were various interpretations of the cause of the tsunami in American Samoa: 1) “It’s the Nature of the World”; 2) “It Came from God” / “It’s a Curse from God”; 3) “It’s a Wake Up Call”; and 4) “Prepare Your Soul”. It is important to note that three out of four of the causes attributed as the origin of the tsunami were related to God. It is clear that for a culture that is so intrinsically tied to its faith-based congregations, such as American Samoa, faith plays a crucial role in the way the community interprets a disaster. Concordant with Arredondo, Bordes & Paniagua, (2008), the people of American Samoa turned to their religious leaders, their faife’au, for help in understanding the meaning of the event and to provide direction in moving forward. It seems that regardless of whether the interpretation had a positive or punitive tone, all faife’au capitalized on the tsunami as an opportunity to encourage their congregations to draw closer to God. However, as can be seen in the varied causal attributions, the way the faife’au interpreted the event impacted the way members of a congregation conceptualized the event and their role in it. These interpretations shaped the recovery process; their repercussions for disaster risk reduction will also be addressed subsequently.

For those in congregations whose faife’au framed the tsunami as a punishment or “Curse from God”, the expected behavioral outcome was to return to fundamental values. As such, the recovery outcomes in these communities may be similar to those seen in communities with similar causal beliefs, such as Muslims, where belief that an event was retribution from Allah engendered a call to return to fundamental values (Riddell, 2007; Kalayjian, 2009; Taylor, 1999; Schlehe, 2010). It is possible that if this perspective led to resultant feelings of guilt (as discussed by Dudley-Grant & Etheridge, 2008), members of the congregation may respond by bringing behaviors into line with social expectation. This was seen among the Protestant communities who no longer play bingo on Sundays. Additionally, members of many different congregations recommitted to Sunday as a day of rest, forgoing work and recreational activities. For those who did become more involved with their church congregations, increased access to social support systems may have helped facilitate recovery. Some faife’au, however, interpreted the event in a
different way: while the act itself may be dependent upon God, it was seen as a call to “Prepare Your Soul”. Thus, while the event may be directed from God, people are expected to carry responsibility for being prepared both spiritually and physically. A hopeful, positive outlook and social support have been shown to lead to better post-disaster outcomes (Norris et al., 2002; Norris, 2008; Arredondo, Bordes & Paniagua, 2008). Thus, positive outlook and social support within congregations that incorporated this interpretation may foster better recovery outcomes and result in communities being more prepared for future events. Additional research is necessary to fully explore these suggested links.

As the importance of faith impacted the way in which communities recovered, so too did traditional Samoan systems of coping. Samoans are a people of great strength and pride, tenets that provide a framework for all social interaction as well as a proscription for appropriate behavior. This pride in the indomitable strength of the Samoan people may serve as a coping mechanism and a form of social support in the face of difficult times. Avoidance of negative thoughts and emotions, a focus on moving forward, and reliance on faith facilitate a future orientation and forward momentum that may foster recovery. This is consistent with Ablon’s (1971) findings after a 1964 church fire:

“Samoans speak of themselves as being strong and knowing that one has to take hardships without complaint” (p. 332).

This excerpt mirrors the experiences shared by the participants in my study.

This type of coping and future orientation may also support the social structure by minimizing upheaval in the daily life of a village. However, the desire to be strong, and not to show weakness may be burdensome for those who are struggling with the aftermath of catastrophic disaster. As one participant shared: “It just happened. It keeps ringing in my mind. I don’t know how to forget.” For these members of the community, the shame surrounding their weakness at not being able to put the event in the past may undermine their sense of perceived support (see Norris et al., 2005), thus leading to poorer recovery outcomes. This too, emerged among some of Ablon’s (1971) participants. Specifically, ongoing grief five years after the 1964 fire by two women who were widowed in the blaze was considered by others in the study to be extreme behavior.
When asked about bereavement, one participant in Ablon’s study remarked: “Samoans don’t do that. People don’t worry or grieve.” (p. 334) Thus, beliefs and practices that are adaptive on a day-to-day level to facilitate coping may exacerbate the experiences of those with severe trauma, as the only outlet for ongoing grief and other negative feelings is through one’s relationship with God. While this may serve a spiritual purpose to promote healing, the suppression of weakness combined with a low tolerance for deviation from the norm set by the rest of the community may alienate victims of trauma, thus further threatening healing and recovery processes.

The strategy to “Just Move On” also appeared repeatedly as a method of coping with the disaster experience, and is intimately tied to the communication style which minimizes negativity. Ablon (1971) also found this outcome:

“People held up pretty well. Maybe for a month or so they wanted to stay to themselves and think a lot about it, but after that, they just had to move on and they didn’t let it preoccupy them” (p. 335).

Future orientation and the desire to avoid negativity in thought, memory and action are reciprocally supported values for Samoan people. These practices may serve to facilitate recovery, as members of the community immediately set about the tasks of rebuilding. In fact, Norris, et al. (2002) found that future orientation can lead to better post-disaster outcomes. As such, in American Samoa, the future orientation that is a part of the fa’aSāmoa may be a crucial component of recovery. However, for those who are overwhelmed by the trauma, this focus on moving forward may actually hinder recovery.

**Applying activity settings theory to tsunami recovery.**

It is clear that the socio-political system and systems of interpersonal communication and coping interact in such a way to create a unique cultural context for disaster recovery. The dominant roles and scripts that are embedded within the collectivist hierarchical social system are pervasive across all Samoan social settings. This structure enables the social system to continue functioning by minimizing dissent outside of a designated time/space and cultivating a collective responsive orientation to the world. Socio-political scripts that emphasize the family over the individual, and interpersonal communication scripts of avoidance of the negative and reliance on personal strength feed directly into the systems of coping that support turning to God.
The fundamental centralization of power among the few also engenders a practice of turning to one in a position of power for guidance that fits seamlessly within the strong faith community. Individuals turn to God with their problems, allowing them to avoid showing weakness to others, and to maintain pride in their strength as a person and their faith in God. Thus, in American Samoa, faith is an explicit, normed, socially sanctioned avenue for recovery.

While the community defaulted to the values, beliefs, and practices discussed above, other culturally embedded solutions that typically occur in the management of disruptive events did not fully emerge in the recovery process. For example, the framework for handling an expected but disruptive event, a faʻalavelave, was not harnessed as a solution for managing the issues associated with rebuilding after an unexpected large-scale event, like the tsunami. The concept of faʻalavelave provides explicit guidelines for managing behaviors and expectations for providing aid in times of need. The social support and physical action aspects of faʻalavelave, (gathering together, sharing food and stories, physical cleanup) were crucial in the recovery process. However, other types of involvement did not seem to emerge in the traditional way. For instance, upon the death of a loved one, the family’s matai will require a contribution from each member of the family, often in the form of money, fine mats, and food, in order to provide for the activities surrounding the event (as discussed by a participant on page 49). Additionally, in the church community, congregations within villages frequently are able to raise large amounts of money quickly for church renovations, repairs and rebuilding. Both of these instances activate protocols for monetary contribution from members of a family or congregation to a communal need. Large family gatherings that accommodate extended ʻāiga happen frequently, and new church buildings require completion and renovation regularly. As such, both faʻalavelave and church construction are distinct activity settings, with their own personnel, roles, scripts, and resources to navigate the disruptive event (death, wedding, bestowing of a title, etc.) or community-level need. However, these existing settings with their guidelines for contribution and construction were not utilized across the board in the post-tsunami recovery process. Shelter and food were offered within the ʻāiga as family members provided hospitality for displaced relatives, but the collection of monies for the express
purpose of contributing to the rebuilding needs of specific members did not seem to occur unilaterally.

It may be that applying the scripts for a planned or expected event (such as a marriage) to a novel, large scale situation (unexpected event of a disaster) was simply not conceptualized. The emergence of a new activity setting (post-tsunami rebuilding) born of community-level trauma may be necessary; however, while the roles, scripts and resources of two separate and distinct activity settings (fa’alavelave, Church construction) may be applicable to the emergent activity setting, the analysis and incorporation of these resources may simply tax the community beyond its capacity during a time of extreme stress. Alternatively, it may be that this process is simply not a viable solution on such a large scale and over such a long period of recovery. While a death or need for church renovation is localized to a small portion of a village, the tsunami impacted the lives of people in every village across the island. Application of the fa’alavelave contribution system may simply be non-functional, as it requires resources that exceed the capacity of both individual families and villages.

Additionally, the existence of several congregations in each village may have created a faith-based partitioning of aid as villages went about the recovery process. The distinction between congregations may have created parallel faith-based activity settings seeking to meet the needs of the congregation and its members in rebuilding, which may have precluded collaboration or pooling of resources among congregations within a village. These distinct need-based activity settings may have never been merged in such a fashion before, and therefore may have been outside the realm of available solutions when problem-solving in the aftermath of catastrophic disaster. Collaboration of congregations from the same denomination across different villages, or collaboration between congregations from different denominations in the same village may offer an opportunity to pool resources throughout the recovery and rebuilding processes.

So how is it that small villages are able to regularly raise large sums of money very rapidly for their churches, but recovery in the aftermath of the tsunami is still slow? In addition to the need for a new activity setting (as described above), two factors are apparent here: the scripts for building differ from the scripts for recovery. It may be that there is an expectation post-disaster that there will be external aid, which then
undermines the community’s capacity to facilitate its own recovery. Alternatively, it may be that these congregation-based construction scripts are active, but in a state of community-wide disaster, the capacity for implementation of these methods for handling a “fa’alavelave for the congregation” is overwhelmed, as resources at both family and village levels across the island are depleted. In a situation where the entire system (families, congregations, villages, territory) has not been impacted by massive system shock, the opportunity tap into the resources of the congregations may be a viable option to support and facilitate recovery. Perhaps, as the communities begin to recover and resume pre-tsunami levels of functioning, villages may be able to tap into the strength of their congregations not only for support in coping and recovery, but practical support in rebuilding. (See Freeman, 1983 for a description of competitive fundraising among church communities.) In this way, the tactical approach to addressing community needs on a regular basis (accessing social groups within the church, utilizing faife’au as gatekeepers, raising money collectively), might be utilized to pool resources across families within a congregation, or even among congregations, in order to offset the resource depletion at the family and village level. Thus, the practice of fa’alavelave might be leveraged through the church ‘āiga in order to enhance recovery outcomes.

Considerations for Disaster Risk Reduction

As with recovery, several factors unique to American Samoa influence the implementation of strategies to reduce disaster risk. These include: socio-political systems; a responsive social orientation; the role of faith; and barriers to hazard mitigation. Examination of these factors will provide context for the way communities approach risk and endeavor to mitigate against it. While there are challenges to implementation of disaster risk reduction strategies, the people of American Samoa have tapped into existing cultural systems to develop strategies for disaster preparedness that fit within the daily life and patterns of villages across the island. For example, educational outreach and training programs that were consistent with the Samoan cultural context had been conducted prior to the tsunami. In some cases, this crucial training of pule nu’u (village mayors) and faife’au saved the lives of entire villages.
Although there were positive examples of disaster preparedness, there were discrepancies in levels of preparedness and the implementation of risk reduction strategies across communities. In particular, the socio-political system played a crucial role in American Samoa. The decentralization of power across villages led to diffusion of responsibility for disaster risk reduction, resulting in: 1) inconsistent implementation of disaster risk reduction strategies in villages across the island (as seen in differential awareness of risk and warning signs, knowledge of evacuation routes, and number of drills); and 2) lack of a formal system in place to ensure the timeliness or efficacy of the implementation of disaster risk reduction strategies. These factors increased communities’ vulnerability in the 2009 tsunami, and must be taken into account when developing strategies to reduce risk of future hazards. While the implementation of preparedness and mitigation measures varied across villages, it is important to note that those in leadership positions in disaster management recognized the importance of matai (chiefs) and pule nu’u (mayors) as gatekeepers to the villages; by building relationships with pule nu’u, emergency management professionals utilized the culturally-embedded socio-political system to gain access to groups in the community.

There was admittedly confusion the day of the tsunami. Without an explicit warning system in place, many did not know what to expect, nor what to do or where to go. In the immediate aftermath of the tsunami, the warning system was still in negotiation for installment. However, the villages were unwilling to wait; they adapted existing village communications systems for emergency purposes. Prior to the tsunami, each village utilized a bell (a large oxygen tank or other type of air tank) system for signaling evening curfew/prayer (described above). During this time, young men from the village, who serve as guards, stand sentinel along the roadways.
This reference to evening curfew serves three purposes: 1) religious beliefs are deeply embedded in the social fabric of the people; 2) the social structure and the expectations within it are visible and very much deployed in everyday life; and 3) there exists a village-wide communication system that is already utilized on a daily basis. After the tsunami, it did not take long for village leaders to recognize the importance of informal communication systems for use in emergency response: village leaders tapped into these existing values and practices (the nightly bell for curfew and prayer) to develop more explicit warning systems – a special pattern of bell ringing was developed to indicate danger. In this way, the communities of American Samoa utilized their values and practices to develop and implement disaster preparedness strategies to meet their immediate and long-term needs.

Traditional Samoan values also shaped the disaster experience. Together with the socio-political hierarchy, the expectation of obedience and the disinclination to voice dissent suggest a responsive orientation when faced with a given situation or event. Individuals are expected to operate autonomously within the range of accepted activity, but not to act independently outside of those boundaries. Thus, in a novel situation, without guidelines for expected behavior, people may have been unsure what to do. This responsive social orientation may have fostered a situational learned helplessness during the tsunami, whereby at the time of acute emergency, people were waiting for explicit instruction. Those who did not have a script for how to handle the situation (i.e., did not have an emergency plan, were unprepared for evacuation, as was seen in many villages with zero pre-tsunami drills), defaulted to wait for instruction from someone in authority, which cost them time before survival instincts kicked in. This is not to say that the people of American Samoa are not able to think for themselves, act quickly, or apply logic in times of acute distress, far from it. What this line of reasoning suggests is that due to the culturally embedded practice of operating within expectation, actions and decisions may have been stymied in the crucial moments when the tsunami was reaching the shores of Tutuila, as there was no precedent for appropriate action. Without recognition of the possibility of a tsunami after such a strong earthquake, many assumed that because they did not receive a warning, there was not a need for concern. One participant describes her experience the morning of the tsunami:
“Well, there was an earthquake, and since there was no warning, I figured that it was fine, so I went to go drop off my mom at work…”

Here, it is clear that danger did not seem to be a possibility because an explicit warning was not given. However, once this participant was aware of the danger, she immediately sprang into action, running to her aunt’s home, pulling her from the shower and ultimately saving her life. Another participant shared his analysis:

“Okay, the day it happened, they, actually, they were kind of hesitated because they didn’t know what to do, actually, they know what to do but they weren’t sure because this the first time happening… and I realized, you know, I guess the first time they were telling what to do they didn’t kind of like, you know, prepare or they kind of like ‘uh, it’s not going happen, it’s not going happen’ but now that it really happen and the second time [when there was a quake in Vanuatu a few days later] they tell ‘em what to do, they didn’t hesitate, they just took off, yes.”

The belief that “it can’t happen here, it won’t happen to me” is prevalent across cultures. Most people deny the probability of disastrous events impacting them, and therefore, do little to prepare for such emergencies. This is what may be referred to as a universal denial of risk. However, in a culture with a responsive approach to action, this may create an even greater barrier to implementation of disaster risk reduction strategies.

As I discussed previously, faith has been shown to be an important factor in the recovery process. Relevant to this discussion, faith-based causal attribution has implications for disaster risk reduction. Causal attribution that is based upon a rupture in the faith community (distance from God) and its proscribed remedy (draw closer to God) may serve as a barrier to practical implementation of disaster risk reduction strategies (as discussed by Taylor, 1999), as tactical strategies for prevention and mitigation may be dismissed in lieu of efforts for spiritual renewal. For the congregations who interpreted the event as a “Wake Up Call,” there is an inherent call to action. As a call to take better care of the earth, the proscribed remedy is clear: the communities must be better stewards of the earth. This perspective engenders both preparedness and mitigation that reduces risk for the community and cultivates ecological sustainability. Whether or not this has led to sustained behavioral changes is as yet unknown. For congregations whose faïfe’au who saw the event as a call to “Prepare Your Soul,” this approach may enhance the community’s level of preparedness as well as the recovery process, as it provides a link between physical and spiritual readiness. This was seen among the Mormon
congregations in American Samoa, who quickly enacted protocols for tsunami readiness, including placing emergency kits within the church that are checked on a monthly basis, and encouraging members of the congregation to prepare kits in their homes as well.

For those who interpreted the event through a fatalistic lens (see Norris & Alegria, 2008; deVries, 1996), the idea that no human intervention would make a difference upon the likelihood or outcome of a potential future disaster (see Arredondo, Bordes & Paniagua, 2008; Wilson, 2008), creates serious implications for disaster risk reduction. This ideology was evident in several interviews where participants indicated that prediction of future disasters was at the will of God, and that if God intended to punish the people, it would not matter what precautions had been taken “maybe all the same if you build a house like low or build it up high, maybe all the same… yeah… there is no difference.” If this belief system is employed, it becomes much more difficult to cultivate support for implementation of preparedness and mitigation strategies.

All of the socio-cultural factors that provide context for disaster risk reduction, including the socio-political system, responsive approach to action, and the role of faith, have a direct impact on the type of mitigative strategies a community is likely to implement. Due to the unique relationship of the Samoan people to their ancestral homesteads, the implementation of some hazard mitigation strategies, such as the establishment of buffer zones and relocation outside of inundation zones, have been somewhat complicated. Since the tsunami inundation zones have been established by the FEMA insurance flood rate maps, those whose lands fall into the buffer zones are ineligible for FEMA support in rebuilding. This is problematic for families who have spent generations by the sea. While communal land may exist elsewhere in a village, the familial tie to the original homestead is a significant barrier to moving out of buffer zones. In many cases, families have rebuilt in the same location without FEMA assistance. This approach, however, disadvantages those who lack the resources to rebuild without assistance. Those without sufficient capital are forced to make a choice that contradicts their culturally bound desire to remain on ancestral lands. Thus this risk reduction strategy, while a scientifically sound, evidence-based best practice for hazard mitigation, creates collateral impacts on the social system. While rebuilding behind buffer zones on other family lands in the same village does not necessarily disrupt the
social system, it does undermine the importance of living on ancestral lands, where loved ones are buried. This type of mitigation, therefore, may actually increase vulnerability (see Kennedy, Ashmore, Babister & Kelman 2008). If disaster mitigation is prioritized over such fundamental cultural values, these mitigative strategies may lead to a measure of cultural erosion, which can subsequently undermine a community’s resilience to future hazards.

Relocation may be deemed a reasonable measure if perceived risk is high, as was the case in the village of Fialolo. The village chiefs assessed the risk of subsequent danger as a result of earthquake damage sufficient to relocate the entire village. Although the risk may be high, so is the price they are paying for this relocation, as members of the village retreat to their homes on top of the mountain in the evening and daily traverse a treacherous climb to and from their homes along the shoreline. The move was widely perceived across the island community as a drastic measure. It is also important to note that in a community like American Samoa, where the social framework is intrinsically tied to the land, permanent relocation may mean loss of title and status. Additionally, since family members are buried on communal family lands, relocation away from ancestral homes is akin to abandoning loved ones who are interred there. Thus, the social implications of relocation are great, and relocation as a viable mitigative strategy, while scientifically legitimate, is culturally inappropriate, and therefore, unlikely to be utilized.

Economic factors are also a crucial component in disaster risk reduction. Even if a disaster management plan is reconciled with complex socio-cultural factors, if sufficient economic resources do not exist, implementation of such a plan will be impossible at both the community and individual levels. As Easter (1999) elucidated, low levels of economic diversification and high levels of trade dependence create increased vulnerability to disaster. In American Samoa, limited economic diversification, high reliance on trade and overseas remittances, high unemployment rates and the burden of rebuilding, are all economic barriers to the implementation of mitigative measures. Individuals and villages are forced to choose between immediate subsistence needs and investment in long-term sustainable risk reduction. An economic diversification plan is reportedly underway, which should create employment opportunities in new sectors such
as construction, catering and a call center training center. The island is also moving
toward building local disaster response capacity, but economic factors continue to be a
concern. The availability of sufficient resources inevitably creates a tension between
immediate needs, long-term sustainability, and disaster risk reduction.

As the issues regarding mitigation elucidate, disaster risk reduction plans which
are incongruent with cultural systems, despite their structural logic and evidence-based
effectiveness, face obstacles in implementation and long-term viability (see Schilderman,
2004). Disaster risk reduction must not merely address hazard risk, but must also address
the unique contextual factors that may prevent community-level sustainability and leave
communities at greater risk. Among these factors are the cultural and hierarchical ties to
ancestral lands, embedded social, cultural and religious values systems, and economic
constraints.

**Applying activity settings theory to disaster risk reduction.**

We have seen that there has been some overlap in social, religious, and disaster-
related activity settings related to recovery. While the dominant script of relinquishing
control to a higher power is pervasive in American Samoa (across both social and
religious settings), in relation to disaster risk reduction, a more disparate picture emerges.
For instance, several earthquakes that have occurred subsequent to the tsunami have
elicited an immediate emergency preparedness response. People do not wait to be told to
evacuate, they move uphill and await further instruction once they have moved to safety.
The scripts, therefore, for earthquake readiness and response have become more explicit
since the tsunami. However, this response to earthquake danger has not necessarily
transferred to other sources of hazards, like severe weather. For instance, during the time
of data collection, a hurricane followed by a monsoon settled over the island of Tutuila.
This engendered a safety response that included boarding windows, securing properties,
and sheltering indoors in the most protected area of the home. Interestingly, other scripts
also remained active: when the bell rang for Sunday service, some families left their
boarded up homes in the midst of heavy winds and torrential rain to attend church
services. When prompted as to why these families left in the middle of the storm, the
common response was that “the bells were ringing.” Thus, both the storm and the
Sunday service scripts were operational simultaneously. It was reasoned that if they were not expected to go to service, the bells would not be ringing. That the bells were ringing were a signal of the expectation that they should attend service. The danger of the storm script did not supersede the imperative to attend church for some families, though it did for other families who did not attend church due to the perceived risk. It may be that for those who left their homes, the competing scripts defaulted to the stronger script (weekly church attendance); alternatively, it may be that the ringing bell served as a cue to activate that script, and once activated, the expectation to attend service, consistent with the concept of usiusita ’i, was not to be questioned. Additionally, some reasoned that leaving the house to go to church was not dangerous because “Jesus will protect us.” Here, it is possible that the religious attendance script pre-empts storm safety, thus becoming a barrier to disaster risk reduction.

**Recommendations Moving Forward**

Although outside the scope of this project, a full analysis of lessons learned involving members of the community, cultural and religious leaders, and disaster management professionals is recommended. Due to the hierarchical social structure, community participatory action is most likely a novel concept; individual voices do not need to be heard on a daily basis, for the welfare of all is looked after by those in leadership positions. Additionally, the disinclination to criticize publically and avoidance of the negative are potential barriers to clear, candid communication about areas for improvement throughout the recovery process. However, it is likely that members of the community could provide crucial insight into the disaster experience, and as such, a mechanism for creating a sustainable plan for disaster risk reduction that includes these voices would be extremely valuable.

The pule nu ’u provide a direct link between autonomous villages and the formal government of the territory. As was seen in the experiences of villages that had completed tsunami evacuation drills prior to the event, the training received by these community leaders has great potential for effectively increasing awareness and reducing disaster risk. Capitalizing on the role of the pule nu ’u to gain access to villages in order to implement disaster education, preparedness and mitigation initiatives is an excellent
opportunity to leverage this existing role, and expand its function into new settings. Furthermore, existing educational programs being delivered within the school system could reach out to engage the broader school communities, including adult family members of students in disaster education initiatives.

We have seen that the scripts and resources that operate in both fa’alavelave and church construction and renovation did not seem to fully transfer to the post-tsunami rebuilding process. The fa’alavelave concept is embedded in the cultural fabric of the fa’aSāmoa, as it ties into the sense of hospitality and responsibility to aid one’s family and members of the community. These beliefs and practices could be adapted from application in disruptive but expected/common activity settings to unexpected disaster-related activity settings. The explicitly articulated approach to management of a fa’alavelave would transfer well into a post-disaster rebuilding setting, and the scripts for participation and contribution would provide structure for the rebuilding process. It may also be helpful for disaster response professionals to moderate for the communities’ inexperience with events of this magnitude and their responsive approach to action. An explicit paradigm for providing disaster-related information (for notification, evacuation) enables people to follow and minimizes the need for critical thinking in times of acute danger.

Additionally, disaster management teams should capitalize on the influence and access of religious leaders. While faife’au are recognized and respected as religious leaders, and congregations are acknowledged as essential structural pieces of the social fabric, these roles and resources have not been drawn into the disaster preparedness and recovery settings. Faife’au can be accessed as gatekeepers, enabling greater access to “captive audiences” on a weekly basis, where communities gather; such gatherings could be utilized for education and preparedness outreach programs. Since churches are integral to the fabric of the fa’aSāmoa as hubs for socialization and education, leveraging these settings for disaster education is a culturally relevant way to gain regular access to members of the community. As such, faife’au could serve as conduits for creating an activity setting for disaster preparedness within the social/educational setting of the church congregation. Additionally, faife’au may be helpful in larger villages to facilitate village-wide evacuation drills, especially given the historic role of the church as a
resource for formal education. Because there is leadership crossover (i.e. a matai or pule nu’u may also be a church leader), the collaboration between government and religious congregations may be easier than in communities where there is a strict division between church and state. While it is possible that cultural leaders are not tapping into religious leadership in order to avoid a challenge to the balance of power in a village, the advantages of utilizing religious leadership as allies is undeniable. One particularly viable opportunity to collaborate with religious leaders would be through the yearly gathering of all the churches. A coalition of religious leaders actively engaged in disaster risk reduction would be a powerful force in the life of a deeply religious community such as American Samoa.

It is important to note that neither the pule nu’u nor the faife’au were traditionally part of the fa’a Samoa. Both of these positions were created after contact with and involvement of foreign empires and entities. The pule nu’u was created as a liaison between the central government and autonomous villages; the role of the faife’au emerged as Christian missionaries sought to convert the Samoan people to Christianity. As these two leadership roles have become embedded in the fa’a Samoa, their pivotal role in the daily life of the people provide an excellent opportunity to leverage these positions as catalysts for increasing education, and creating and implementing strategies to reduce disaster risk.

Contextual Influences and Research Limitations

There were several contextual influences that may have impacted the research outcomes, including: the timing and context of data collection; personal characteristics of the researcher; communication barriers; and purposeful exclusion of government documents. Each of these contextual influences and potential research limitations shall be examined in turn.

The first limitation is related to timing of data collection, as interviews and observations were conducted 15 months after the tsunami occurred. This may have impacted the participants’ memory of their experiences. Additionally, participants’ perspectives on the tsunami, its impact, and the recovery process may have changed with the passage of time. However, as the goal of my research was to cultivate a better
understanding of the ways cultural and religious belief systems impact the recovery process, the timing of data collection was appropriate. It was also recommended by a trusted advisor familiar with Samoan culture to spend some time living with a Samoan family in order to gather in vivo observations of social and familial interactions, as well as cultural and religious traditions. Living with a Samoan family undoubtedly shaped the research experience, providing much greater understanding of interpersonal interaction within the day-to-day life in a Samoan household than would have been possible had the researcher been lodged in a hotel.

Second, my personal characteristics may have impacted the research outcomes. As a trained counselor, I reflexively utilize counseling skills when interviewing. Throughout the interview process, I “reflected” back to the participants summaries of their own words in order to verify that I had understood correctly, or in order to elicit additional information for topics that needed clarification. Many times throughout my interviews, participants repeated my summarizing words back to me, agreeing that my summaries were correct. This could signify confirmation that I was accurately describing the topic previously discussed. However, it is possible that this agreement was a manifestation of the cultural imperatives to demonstrate impeccable hospitality and refrain from disagreement (see Freeman, 1983). It is additionally possible that my lack of familiarity with the Samoan language and my limited knowledge/experience with Samoan culture negatively impacted my credibility with the members of the community with whom I interacted. A working knowledge of the language and more in-depth experience with the fa’aSāmoa may have been seen as an indication of greater investment in the Samoan culture and community, which may have fostered greater trust and rapport with participants. Furthermore, the controversial research published by others before me (see Freeman, 1983, for a full discourse) may have created an atmosphere of suspicion around an unknown pālagi researcher.

Third, communication patterns due to linguistic nuance may have impacted the information that was communicated. Most of my participants spoke English as a second language. As such, it is possible that some participants did not convey all that they wished to communicate if they were unable to determine the appropriate translation into English. For instance, some of the older participants whom I interviewed spoke in
Samoan to others nearby in their homes, asking for assistance in translating their words into English. It is possible that the nuanced meanings of some words did not translate fully into English. It is also possible that due to these linguistic complexities, a participant’s intended meanings were misconstrued by the researcher. Additionally, an initial affirmative response to a question may be an acknowledgement of the question that has been posed, rather than an official response to the question (Metge & Kinloch, 1984). Thus it is possible, due to linguistic nuance and hospitality, that a response that was inaccurately reflected back by the researcher would not be corrected by a participant.

In addition to these communication styles, the data show that there is a tendency in Samoan culture to avoid that which is perceived to be negative, and to maintain a sense of hospitality at all times. As such, the Samoan imperative to be hospitable may have created culturally bound expectations for how participants interacted with me. This may have manifested in several ways, including: 1) a desire to provide the kind of information I sought (as perceived by the participant); and 2) a disinclination to disagree with me. Both of these factors may have impacted the type and extent of information that was shared with me. Furthermore, some participants declined to answer specific questions. Rather than verbally refusing, however, these participants simply talked about another topic. There are several possible reasons for this diversion: 1) The interviewer may have been unclear in posing the question, or the participant may have misunderstood the question posed, leading to misunderstanding; 2) The participant may have felt uncomfortable disclosing private or sensitive personal information with a pālagi outsider with whom they had no baseline relationship or foundation of trust; or 3) The culturally-embedded coping styles that promote moving past difficult times, avoidance of showing weakness, and the reluctance to discuss or revisit negative experiences may have influenced the willingness of participants to fully disclose the extent or depth of their experiences.

Finally, it is important to note that these data are a reflection of the experiences of the members of the community who participated in my study; the data may not be generalizable to the entire population of American Samoa. It is also possible that my referral sources and the participants they approached on my behalf may not by reflective of the entire community of American Samoa. As such, the choices my referral sources
made regarding whom to approach may have shaped the type of information that was shared with me. Furthermore, government reports and government officials were intentionally excluded from this study. I wanted to present the analysis from the point of view of the general community. A comprehensive analysis of this event might include an analysis of the government preparedness and response trainings, educational outreach initiatives, response and recovery procedures, funding guidelines for rebuilding, and protocols for disaster mitigation, both before and after the event.

**Future Research**

It is clear that the religious interpretation of a traumatic event has a considerable influence on the way that a community views the event, its impact, the recovery process, and the implementation of disaster risk reduction strategies. A comparison of recovery experiences among congregations whose *faife’au* employed different causal attributions would be helpful in understanding the long-term effects related to recovery and the implementation of risk reduction strategies. In addition to church-based activity settings, an analysis of the activity settings of those who attributed the cause of the tsunami to be “the nature of the world” (i.e. a causal attribution unrelated to God) may reveal a different set of shared meanings and intersubjectivity that shaped both recovery and disaster risk reduction for this subset of the community. Therefore, future research that seeks to identify the range of activity settings that are relevant for community members both pre- and post-event (as these may be different) would lead to a greater understanding of both individual and community experiences, and can be helpful in the development of disaster education, preparedness and mitigation initiatives, as well as provide insight that can inform our understanding of the recovery process.

The relationship between *usiusita’i* and the sense of perceived control in post-disaster outcomes would also be an interesting area for further research. A comprehensive analysis of this event might include analysis of the government preparedness and response trainings, educational outreach initiatives, response and recovery procedures, funding guidelines for rebuilding, and protocols for disaster mitigation, both before and after the event. Furthermore, an analysis of the mental health outcomes as well as the mental health outreach initiatives that were conducted may shed
some light on some of the long-term impacts of the socio-cultural and religious factors discussed above.

Finally, the values and practices of the fa’aSāmoa, including the three systems of interpersonal communication: communication styles, disinclination toward criticism and avoidance of the negative, together with the imperative for unquestioning obedience, usiusita’i (see Freeman, 1983), raise several questions related to disaster risk reduction: 1) if negative occurrences are avoided, what is the impact on the ability to identify and take action on lessons learned?; and 2) if criticism is discouraged, how can recommendations for improved response be developed and implemented in order to reduce future risk? If the community does not acknowledge practical weaknesses that contributed to negative disaster-related outcomes, the importance of disaster risk reduction may be undermined and opportunities to capitalize on lessons learned may be lost. At the time the data were collected a post event tactical analysis of lessons learned involving members of the community had not been conducted. An analysis of the impact of these factors upon disaster risk reduction would be a valuable topic for future research.
**Conclusion**

As the current study shows, disaster research must consider the cultural and religious value systems that provide context for a community’s experience of a massive system shock, as these systems and frameworks have broad reaching impacts across all stages of a disastrous event. A better understanding of the relationship between cultural and religious beliefs, value systems and practices, and how these relate to the initial response, the interpretation and causal attribution of the event, the community’s approach to recovery, and the implementation of disaster risk reduction strategies can offer insight into the disaster experience. By understanding and leveraging community strengths and working to identify potential impediments to recovery and mitigation, these data may contribute to the development of disaster recovery and risk reduction strategies that are relevant to the socio-cultural and religious context in American Samoa, and in the future, other culturally diverse, economically and ecologically vulnerable communities impacted by catastrophic disaster.
Appendix A

Interview Questions

Interview Questions for Cultural Leaders (Village Chiefs):

• What was your experience of the tsunami?
• What was your interpretation of the tsunami (ie why did it happen)?
• What (if any) preparedness/mitigation measures were in place before the tsunami?
• What (if any) preparedness/mitigation measures did you take afterward?
• What effects have the measures had on the physical setting of the village?
• What effects have the measures had on the social interactions in the village?
• How have livelihoods in your village been impacted?
• How has your view of the sea changed since the tsunami?

Interview Questions for Religious Leaders (Congregation Pastors):

• What was your experience of the tsunami?
• What, in your mind, was the cause of the tsunami?
• What did you say to your parish to help them cope?
• How did the experience impact the level of faith of your parishioners (increase/resurgence of the faithful, or decrease/loss of faith)?
• How does your faith promote healing?
• How is this related to traditional Samoan healing?

Interview Questions for Community Members:

• What was your experience of the tsunami?
• What, in your mind, caused the tsunami?
• How do your religious beliefs explain the tsunami?
• What role did your faith play in the way that you coped?
• How did the tsunami affect your (or your family’s) livelihoods?
• If you have relocated since the tsunami, how has relocation impacted the social interactions in your village?
• How has your view of the sea changed since the tsunami?
Appendix B

Introductory Overview of the Project

The Relationship between Cultural and Religious Belief Systems and the Implementation of Disaster Preparedness and Mitigation Strategies in American Samoa in the Aftermath of the September 29, 2009 Tsunami

You are invited to participate in a research study examining the experience of the communities of American Samoa in the aftermath of the September 29, 2009 tsunami.

The researcher, Katie McGeehan, is a 31 year-old Ph.D. student in Community and Cultural Psychology at the University of Hawai‘i. She has a Masters degree in Counseling, and has spent several years living and working among the Navajo, a Native American tribe in Arizona on the U.S. mainland, in addition to cultural research in Guyana, South America and the Marshall Islands. She has a deep interest in culture and wishes to better understand how culture affects and is affected by the experience of disaster.

The purpose of the study is to understand how a community’s culture, including religious beliefs, social relationships, livelihoods, and relationships to the land and sea impact the way that the people 1) understand the disastrous event; 2) the types of actions they take to protect themselves in case another event happens in the future, and 3) the ways that these actions taken after the disaster may actually change their lives. Your participation in mutual conversation with Katie will provide valuable insight into understanding the way that the tsunami impacted the people of American Samoa.

The information that you share about your experiences will be kept private, and will be combined with the responses of others to get a more complete view of the community’s experience in recovering from the tsunami. The ultimate goal of this project is to identify the strengths of the people of American Samoa that help them to recover, and to determine if there are any difficulties with recovery that are related to specific parts of the Samoan culture, like the relationship to the land and sea. The hope is to leverage the community’s strengths and determine ways to avoid or change the obstacles to recovery. The information that is gathered will be shared with you, and with the American Samoa community to assist, if possible, as the community continues to rebuild. These lessons will hopefully help the community, and other communities impacted by disaster, to prepare for and recover from future disasters.

If you are interested in meeting with Katie to learn more about the project, and possibly talk with her again afterward about your experiences in the recovery process after the tsunami, I will give your contact information to Katie and let her know you have given your permission for her to contact you.

Heartfelt appreciation for your consideration.
Appendix C

Consent for Participation

The Relationship between Cultural and Religious Belief Systems and the Implementation of Disaster Preparedness and Mitigation Strategies in American Samoa in the Aftermath of the September 29, 2009 Tsunami

You are invited to participate in an interview regarding the experience of community members and responders in the aftermath of the September 29, 2009 tsunami in American Samoa. You have been selected as a possible participant for this study because of your direct experience of the tsunami or through your involvement in supporting the community through the recovery process.

Participation in the project will consist of an introductory meeting followed by one short interview with the investigator. Interview questions will focus on your personal experience of the tsunami and your involvement in the recovery process. The interview is expected to last about an hour, but you are welcome to speak as much or as little as you feel comfortable. The interview will be audio recorded for the purpose of transcription. No personal identifying information will be included with the research results.

Research data will be confidential to the extent allowed by law. All research records will be stored in a locked file in the primary investigators’ office for the duration of the research project. Audiotapes will be destroyed immediately following transcription.

The investigator believes there is little or no risk to participating in this research project. However, there may be a small risk that you will experience psychological pain when speaking about your personal experience of the tsunami or your experiences in the relief/recovery efforts. Participating in this research may be of no direct benefit to you other than offering you the opportunity to speak about these important events.

Participation in this research project is completely voluntary. You are free to withdraw from participation at any time during the duration of the project with no penalty.

If you have any questions regarding this research project, please contact the researcher, Katie McGeehan, at (267) 664-0979 or kmcg@hawaii.edu. If you have any questions regarding your rights as a research participant, or if you wish to file a complaint, please contact the University of Hawai’i Committee on Human Studies at (808)956-5007, or uhirb@hawaii.edu

Participant: I have read and understand the above information, and agree to participate in this research project.

I give my consent for this interview to be audio recorded.
I do not give my consent for this interview to be audio recorded.

_______________________________
Name (printed)
_______________________________
Signature
_______________________________
Date
Glossary

Samoan terms used in the body of this thesis follow contemporary Samoan orthographic conventions. The letter ‘g’ is used to represent the velar nasal and is pronounced like an English ‘ng’. The glottal stop is represented by an apostrophe and is pronounced like the missing consonant in the cockney pronunciation of ‘bottle’ (bo’le). The long vowel is characterized by a macron over the vowel (e.g., ā) and indicates a lengthened articulation of the vowel. In modern Samoan writing the glottal stop and macron are often omitted from the written representation of a word but they are always pronounced orally. The Samoan terms used in this thesis are listed below with the correct phonemic orthography.

‘āiga – family
fa’aaloalo – respect; hospitality
fa’afetai – thank you
fa’alavelave – disaster; disruptive event
fa’aSāmoa – the Samoan Way
faife’au – congregation pastor
fale – a traditional open air house
fono – meeting; village council of matai
Galu Afi – “Wave of Fire”; the name given to the 2009 tsunami
matai – chief
pālagi – white person
pule nu’u – village representative to the government; mayor
so’o – too much; excessive
talagateu – period of mourning
talanoa – informal conversation
tausi – care for others
tautua – selfless service
References


Morin, J., De Coster, B., Paris, R., Flohic, F., Le Floch, D., & Lavigne, F. (2008). Tsunami-Resilient Communities' Development in Indonesia through Educati...


