FROM INDIVIDUAL TO ORGANIZATIONAL RESILIENCE,

A CASE STUDY REVIEW.

by

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ABSTRACT

Major disasters, both natural and human-made, pose sometimes insurmountable problems for unprepared or under-prepared organizations. In this capstone I explore and develop ideas about how individuals are able to affect organizational dynamics, within a complex context of change, in order to facilitate the mechanism of resilience. I employ the enriching information from a review of literature and my Organizational Dynamics classes. I use case studies of Sandler O'Neill's response to the World Trade Center tragedy and the development of the Oregon Resilience Plan to identify a systemic approach to understanding the complexity of current organizational environments and the power of organizations' dexterities. Further studies are needed to transfer theoretical resilience into practice, thereby developing organizations' ability to change in such a way that becoming a new entity may be not only valuable but also affordable.

ACKNOWLEDGEMENTS

My personal interest in life has been to understand human beings. To do that, I have combined different perspectives, such as art, business, psychology, and currently organizational dynamics. Many people have supported and enhanced my endeavors; some of them are acknowledged here.

I want to express my appreciation to Dr. Janet Greco, my capstone advisor, for her unforgettable classes, her feedback, and her example of resilience. I extend my gratitude to Dr. Alan Barstow, my capstone reader, for his guidance, for his openness to new ideas, and his example of leading the Organizational Dynamics program through the uncertainty of change. I thank all my teachers throughout the Organizational Dynamics program for enriching my experience through their support and advice. My first introduction to Organizational Resilience from Dr. Steven Freeman has been particularly important. I especially thank Dr. Ruth Orenstein for reconciling me with the art of executive coaching, and Dr. Nancy Bauer for her generosity and example of critical thinking. A special mention, also, to Dr. Dana Kaminstein, who showed me my weaknesses and also guided me to improve them; I am thankful for his trust and respect. To all the Organizational Dynamics community, especially to my fellows, go my appreciation for their effort to study and work, for sharing their experiences, and for being patient and open to listen to some Chilean stories.

I express my special words of gratitude and recognition to Becky Gookins Collins, my dear writing coach, who was not only a mentor but also a wonderful advisor.

I dedicate this capstone to my husband, Osvaldo, for his enormous generosity and courage, for his support, and for taking the risk of sharing this journey with me. My loving recognition and gratitude go to my daughters Ignacia and Javiera, who showed me the value and power of resilience in their early childhood and to their sisters Francisca and Patricia for their permanent affective support and because they have been examples of rebuilding life with love and meaningful relationships. My parents Oscar and Erica receive all my appreciation for their endless support and their example of resilience in the mysteries of marriage.

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CHAPTER 1

INTRODUCTION

This Capstone examines the concept of organizational resilience, its characteristics, and the several perspectives about resilience. The word resilience comes from the Latin *resiliere* that means to spring back (Britannica, 2014); an easy definition for resilience is the capability of an entity to absorb disturbance and reorganize while undergoing change (Berkes & Turner, 2006). There are two questions I will explore in this Capstone. The first is why is it important to develop organizational resilience in our currently global civilization? The second is if organizations were able to transfer resilience from individual to an organizational level, how would they do so? While it is hoped that methods for developing organizational resilience can be applied in many countries, different organizations, and industries, my focus herein is to demonstrate possibilities based on the experiences cited in case studies.

At a personal level, this research represents my interest in becoming an expert on the development of organizational resilience. I wish to work as a consultant to global organizations because I believe, due to my understanding of the challenges of globalization, that organizational resilience is a key factor in the ability of companies to achieve sustainability in this context in particular.

Background

In 2010 I was living in Chile, finishing my summer vacation and preparing for my family trip back from Santiago (capital city in Chile) to Calama (small town north of the country). Because it is a long distance to drive, more than 1,600 km, we decided to leave

the city on the morning of Friday, February 26th. After almost 10 hours of driving we found a place to sleep and planned to continue our trip the next day. What woke us up at 4:00 a.m.? This unforgettable phone call: "Earthquake! In Santiago." In the aftermath, the statistics recorded that there were 523 people killed, 24 missing, about 12,000 injured, and 800,000 displaced, as well as 370,000 houses, 4,013 schools, 79 hospitals and 4,200 boats damaged or destroyed by the earthquake and tsunami in the Valparaiso-Concepcion-Temuco area. At least 1.8 million people were affected, which is 80% of the Chilean population living in an area encompassing 497 miles (800 km) in the central and southern coast of the country. The total economic loss in Chile was estimated at 30 billion US dollars (U.S. Geological Survey, 2014).

Four years later, coming back from my classes on April 1st, I took the Penn bus and, like most students there, I was watching my cell phone. I decided to take a look at the news in Chile, which for me is a kind of relaxation and a way to feel connected to my country. "Earthquake!" was the first word that appeared in front of my eyes. I couldn't believe it. I reset the phone, I looked at another web site, and I felt a very strong anxiety as I realized it was true. Chile was facing, again, a natural disaster, this time in the northern part of the country. My anxiety stemmed from my personal experiences in Chile, because I know firsthand what it means to say an earthquake causes infrastructure destruction and loss of life. A magnitude 8.2 earthquake, with a tsunami alarm, carries a very high potential risk.

The history in Chile and in other countries shows these conditions as very destructive, but what happened this time, in April 2014? Five people died and there was only minor infrastructure damage. The ensuing tsunami alerts created alarm, but people

walked calmly to the safety zones. (Ford & Saeed, 2014). The earthquakes were very different magnitude and affected different regions as well, but for a population of 650,000 inhabitants suffering an 8.2 magnitude earthquake (Richter), the consequences were very low. I realized that Chile has assigned new and more economic resources to re-organize the *Oficina Nacional de Emergencias* (National Emergency Office), which was created in 1974 to manage and develop public policies to be prepared for, prevent and mitigate disasters. It is a multidisciplinary team with stakeholders whose purpose is preparing the infrastructure, resources and the population for natural or social disasters (Gobierno de Chile [Chilean Goverment], 2014). Are these changes in dealing with disaster transferrable to an organization dealing with unexpected crises? I thought of my experiences as a professional consultant in Chile and as a student in the Organizational Dynamics Program, and I determined to make a study of resilience and its applicability to organizations.

The experience of being an international student in the Organizational Dynamics program has allowed me to gain a new perspective on my country and its organizations. The combination of being out of my environment and having to explain the Chilean organizational culture to my fellow students has been an opportunity to learn and think critically about my country.

Chile is a South American country located between the Andes Mountains, to the east, and the Pacific Ocean, to the west. The Atacama Desert, in the north, is the driest place on Earth. At the southern tip of Chile's mainland is Punta Arenas, the southernmost city in the world. As a consequence of its geographic characteristics, and the location of its territory over the Nazca plate, during the last 6 years there has been a continuous chain

of natural disasters (Centre for Research on the Epidemiology of Disasters, 2014). The following table illustrates:

Table 1: Chilean Natural Disasters during 2008-2013 register

Date	Disaster Type
May 2008 May 2008 August 2008	Volcanic Eruption Flood Flood
February 2010 July 2010	Earthquake Extreme winter temperature
July 2011	Extreme winter temperature
December 2012 to January 2012 March 2012 March 2012	Wildfire Earthquake General flood
September 2013	Extreme winter temperature

Unfortunately, my country also owns the world's record for the largest earthquake of the 20th century, on May 22nd, 1960, with a magnitude 9.6 (Gobierno de Chile [Chilean Goverment], 2014). Severe costs in terms of infrastructure and peoples' lives have been incurred after every event. I grew up listening to my family's stories about their experiences and their feelings on those days, experiences that have been shared throughout our culture. A brief comparison of the last earthquakes with other earthquakes in Chile and its consequences is shown in the next table (Gobierno de Chile [Chilean Government], 2010):

Table 2: Comparing Earthquakes 2010 with other Earthquakes in Chile.

Characteristics	January 24 1939	May 21 and 22 1960	March 5 1985	February 27 2010
Magnitude (º Richter)	8. 3	9. 6	7. 7	8. 8
Casualties	30. 000	6, 001	177	521
Affected area ($km^{2)}$	99,207	166,220	48,186	131,006
Affected area (%)	4.9 %	8.3%	2. 4%	6. 5%
Capital stock loss (%)	No inf.	5. 5%	2%	11%

According to the data and the expert analysis, while Chile has been a country too often devastated by natural disasters and strong political crises, it has been able to recover and reinvent itself time and again. People like to think that this is due to the solidarity of the community, with a strong sense of sacrifice and effort, but what experts have cited much more frequently is the concept of resilience. (Gobierno de Chile [Chilean Government], 2010)

Chile's resilience has developed in part by managing several key factors that I have identified through the study of Chile's and other countries' history of disasters:

- Resources: It provides favorable access to and distribution of economic resources.
- Technology: It is a highly developed country in terms of quantity and quality of different media tools.
- Learning: As a conscious and unconscious process, through several generations, both popular knowledge and the formal process of learning have changed the way the country has prepared to manage and overcome a crisis.

As Hamel (2007) points out, the environment that 21st century global businesses face is more volatile than ever. The new reality calls for new managerial capabilities (p. 9). In my opinion, one of these organizational capabilities is organizational resilience per se and also the capability to develop it. The need and urge for change should encourage

organizations to abandon their old or outdated paradigms of maintaining status quo via control and predictability in order to really be prepared for the unexpected. In Hamel's concepts (2007), the transformation in our management DNA comes together with the idea of reinventing management and being able to quickly and efficiently remove the old debris, in favor of new structures that are suited to prevail in the current and future environment. My hypothesis is that if any company is aware of the characteristics of the global context of change, as has occurred within a geographical context in the example of Chile, then that company can and should, like Chile the nation, prepare itself to become resilient and sustainable. I further hypothesize that the best ways to become resilient and recover from any crisis are associated more with the leaders and the people who follow those leaders than with economic and technological resources.

Approach

This Capstone uses a qualitative research approach. The case studies and the analysis of the theoretical frameworks are intended to explore deeply and to thus understand and determine why and how organizations can and have become resilient. I will present data through a review of literature on individual and organizational resilience, the analysis of two different case studies, and the analysis of cases studied during my classes in the Organizational Dynamics program.

Contribution

While considerable research has focused on the need for individual resilience in the face of catastrophe (Bhamra, Dani, & Burnard, 2012), there is relatively little devoted to the actual process of developing resilience within an organization. Organizational resilience is understood as "a critical step towards developing an organization able to

ride the waves of change" (Freeman S., 2013, para.4). The literature review that I have undertaken shows there has been a considerable amount of research on risk management, or crisis management, but organizational resilience is viewed as a consequence and not a separate and worthy characteristic to be developed and managed by itself. My goal is to present some of the ideas in the organizational resilience research and show how any global organization in general, and Chilean organizations in particular, might put these ideas to work. I focus on a long-term vision because what usually happens in my country is that the contingency plan is well prepared right after the catastrophe, there are several initiatives to integrate stakeholders and resources, but only to rebuild the damage without considering the idea of a long-term pre-designed plan, as is exemplified by the recovery plan created after February 21, 2010, which designed a rebuilding plan that finished at the same time that the presidential period finished in February 2014 (Gobierno de Chile [Chilean Government], 2010). This capstone is, therefore, a contribution to my future professional career, to any global organization, and to my country.

My desire to make a contribution to my country is related to my having come to the United States with a grant from *Becas Chile* (Chilean scholarship). Becas Chile was created to develop academic, professional and technical people of excellence, not only to be more productive but also more creative, innovative, and entrepreneurial. After my period of studies I am committed to give back to my country what I learned at Penn.

I have observed that nowadays it is not only natural disasters that pose a risk in my country. Chile is pushing to expand its economy beyond commodities, and it has a strong program to develop new organizations both domestically and abroad. We know that Chile will suffer new natural disasters at unknown points in time, and we have to be

prepared for that. We can assume that Chilean organizations will suffer not only natural disasters but also economic, labor-related, and possibly political disasters, and they have to be prepared for them as well. Schein (2010) explains that "to understand what goes on inside the organization, it is necessary to understand both the organization and its macro context, because much of what you observe inside the organization simply reflects the national culture, and the interplay of subcultures" (p. 55)

The purpose of this capstone, then, is to understand the concept of organizational resilience and its characteristics, and to present different approaches to developing it. By presenting this research I am expecting also to highlight the importance of developing organizational resilience, and to explore my assertion that sustainable organizations are, in fact, able to transfer resilience from an individual level to an organizational level.

It is my wish to promote the idea of developing organizational resilience using the lessons learned from others' experience and my learning presented in this capstone. I intend to transform the insights of this capstone into the input to develop a specific plan of change that might be applied to any organization.

Chapter 2 presents a Literature Review designed to establish a common understanding of key concepts such as resilience, individual resilience, risk management, crisis management, and organizational resilience.

The term "resilience" was first presented by Holling in 1973, within the seminal work titled "Resilience and Stability of Ecological Systems." Subsequently, the term has been applied to various other forms of resilience, such as individual, organizational, and supply chain (Bhamra, Dani, & Burnard, 2012). I will use the definition from Masted &

Reed (2002) as cited in Sutcliffe and Vogus's (2003, p. 95) understanding resilience as "the maintenance of positive adjustment under challenging conditions."

Individual resilience will be described based on personal crisis and extreme experiences narrated by Boris Cyrulnik (2011), Viktor Frankl (2006), and Aimee Mullins (2010). These three experiences are real examples of how human beings have had different experiences reframing adversity as an opportunity. Another individual experience will be the case of Robert Schimmel (2008) that leads me to describe resilience as an ability to develop even though you know you are not going to be able to see the results. In a work context, but always from an individual perspective, I will describe how Bill George (2007) applied the concept of resilience as one of the key skills to develop in order to become an Authentic Global Leader. Similarly, Patakos (2010) applied the experience of Viktor Frankl to an organizational context.

The concept of "Risk management" (RM), in Hubbard's words, "goes beyond any methodology to measure risk, because it is essentially a risk assessment process based on meaningful measures" (2009). I will use Hubbard's definition of risk management, which lets me focus on the connection that I believe exists between his definition of RM and organizational resilience, regardless of the kind of industry or type of crisis. The same broad approach to RM is presented by Kaplan & Mikes (2012), who keep the focus on the organization's ability to identify its risk and the best model for making decisions. Sutcliffe & Weick (2001) tried to answer the question of why some organizations are better able than others to maintain function and structure in the face of unanticipated risks. Their effort is very helpful in identifying not only high-reliability organizations but

also behaviors and learning styles that enable them to manage the unexpected and to become resilient.

Organizations that are willing to become resilient might be prepared to manage a crisis. I will assume "crisis management" to be the organization's ability to manage the unexpected (Freeman S. , 2013). I will analyze the contribution by Mitroff, Pearson, & Harrington (1996), because their work focuses on any kind of crisis, and because it puts together essential activities to consider before, during, and after a crisis. In my opinion, it is a clear approach to guide organizations to become resilient.

The literature review illustrates different perspectives in understanding organizational resilience to the rapid and disruptive change that is currently challenging them. The first perspective is answering the question of how to manage the unexpected in a way that enables organizations to recover from a crisis (Sutcliffe & Weick, 2001). A second perspective is to consider resilience as one of the essential capabilities to develop in teams and organizations, along with a strategic approach for a competitive environment (Mc Cann & Selsky, 2012). The last perspective that I consider is Freeman's idea (2013) of identifying organizational resilience beyond crisis and preparedness, whereby any organization should be able to identify and manage its own vulnerabilities.

Chapter 3 and 4 explore how some specific organizations have become resilient. Chapter 3 is about lessons learned from experience, letting me identify key elements to promote resilience as a skill to develop. The source of this exploration will be based on an organization's case (Freeman, Hirschhorn, & Maltz, 2003) and Chapter 4 will be based on a state's case (Oregon Seismic Safety Policy Advisory Commission [OSSPAC],

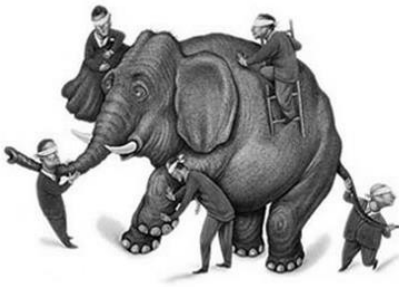
2013). Both cases show that, beyond the industry where crises happen and beyond the kind of disaster to be faced, there is a commonality that permits some organizations or communities to recover, and in fact be stronger, after experiencing the unexpected. Other organizational examples will be referred to as examples of pragmatic and inclusive approaches to examining the organizational process of becoming resilient or, in Zolli & Healy's words, "rolling with the waves, instead of trying to stop the ocean" (2013).

Chapter 5 discusses my understanding of organizational resilience and why it is important to develop organizational resilience in our current global civilization. Following that discussion I will describe my thoughts on how organizations would be able to transfer individual resilience into organizational resilience. At the end I present suggestions for further studies, my personal reflections and how this capstone will be used in my future.

CHAPTER 2

LITERATURE REVIEW

A community of blind men once heard that an extraordinary beast called an elephant had been brought into the country. Since they did not what it looked like and had never heard its name. . [1].
(Meier, 2014)
Picture[2]



My class in Perspectives on Organizational Dynamics (DYNM 501), taught by Janet Greco during the fall term 2013, analyzed "The Blind Men and The Elephant" teaching tale (Godfray as cited by Schmalts, 2003), which illustrates the importance and value of being aware of our limitations, and the importance of contributing to a team with our own perspectives. As professionals in the social sciences field, we need to keep in mind our blindness and how to build common perspectives with our work team, clients, or audience. This second chapter is based on this idea. It is designed to establish a common understanding of key concepts related to organizational resilience. It is not my intention to describe a unique definition for each concept but rather to facilitate reflection about theoretical research in the field of developing organizational resilience. I will define resilience, individual resilience, risk management, and crisis management. At the end of the chapter I will describe organizational resilience.

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[1] To read the complete story, please go to Appendix A before continuing.
[2] Copyright © 2014 Highest Branch. Powered by WordPress. Designed by Ben Swift and coded by Theme Lab and Search Optimization. http://blogs.nazarene.org/kpprobst/2010/03/09/three-blind-men-and-an-elephant/

Resilience

A few of my psychologist colleagues, including me, thought about resilience within our own professional blindness. We understood resilience as a characteristic of personality that was observable only in individuals. On the contrary, Bhamra, Dani, & Burnard, (2012) described the widest contexts wherein resilience has been applied, researched, and analyzed. They built on the broadening of the term by Holling, who in 1973 applied the term "resilience" to the ecological system [(Bhamra, Dani, & Burnard, 2012, p. 5380) and (Folk, 2006)], as it was mentioned in the introduction to this capstone. Subsequently, the term has been applied to various other contexts, such as the physical and socio-ecological systems, individual and organizational psychology, disaster management, and engineering fields. Bhamra et al. (2012), based on a sample of 74 articles directly related to resilience, established that individual, organizational, communitarian, and ecological have been the predominant perspectives from which to study resilience in the last forty years.

Besides these predominant perspectives, resilience has been analyzed primarily as behavior and other specific topics such as: dynamics, capabilities, strategy, and performance. Resilience has been object of analysis from different methodologies, for example: theory building, case study, survey, model or framework (Bhamra, Dani, & Burnard, 2012). The increasing challenge is to transform the academic knowledge into a strong framework and to conduct empirical research on resilience (Suctilffe & Vogus, 2003).

Following the studies of Bhamra et al. (2012), resilience has become both multidisciplinary and multifaceted. It is multidisciplinary because it might be applicable

to different areas of specialization, and multifaceted because it could be understood as an attitude, a mechanism, or an outcome in different kinds of systems. From my point of view, both multidisciplinary and multifaceted confirm the strong connection among resilience, context, and complexity.

For the purpose of this capstone I will use a broad definition of resilience as "the maintenance of positive adjustment under challenging conditions." (Suctilffe & Vogus, 2003, p. 95). Two main elements are inherent in this definition: the judgment about the behavior of an entity, and the judgment about an entity that has faced extenuating contexts. The extenuating context is understood as the presence of adversity that represents a threat to good outcomes [Masted & Reed, (2002), as cited in Sutcliffe and Vogus (2003)]. In my opinion this is a broad definition that captures the main concerns of academic research: a set of expected behaviors and a complex context, and it creates an easy link between individual capability and that of organizations, which is the leading goal of this capstone.

Individual Resilience

We can agree on a very elemental level that organizations are composed of networked people pursuing specific objectives. Based on that premise, Keong and Mei suggest in Bhamra et al. (2012) that it is reasonable to imply that resilient organizations also possess the resilient qualities of human beings. To identify the key characteristics of resilient people, I reviewed four different individual perspectives, those of Boris Cyrulnik, Aimee Mullins, Viktor Frankl and Robert Schimmel.

Boris Cyrulnik (2011) is a French psychologist who, in 1944 at the age of seven, was chosen as a runner in the Resistance after his parents were deported to a

concentration camp and never returned. He transformed his personal trauma into the belief that trauma is not a destiny. As a psychologist he leads the theory of resilience based on the idea that people are much more capable of overcoming traumatic events in their lives than we imagine, a premise exemplified by the stories that I am including in this section.

Cyrulnik's professional work has been developed focusing on children who have succeeded in surviving extreme-suffering experiences. He asserts that resilient children shared the idea that "sufferings are not in vain, and victory is always possible" (2011, p. 6). This idea underlies three main elements in understanding the individual resilience mechanism: 1) resilience as a process, 2) resilience rooted in purpose, and 3) resilience rooted in hope. It is a process because it develops through the life experiences dealing with adverse events. It is rooted in purpose because this is how people reframe their context into a positive meaning for the future, and it is rooted in hope because there is a true belief that light is always at the end of the tunnel (Cyrulnik, 2011).

Cyrulnik's observations show that any traumatic experience will affect people in different ways because these experiences occur at different times and within individuals' psychic constructs. Those different ways to deal with crises and to face them from our emotional responses are our defense mechanisms. Even at very early ages, children use defense mechanisms, such as splitting[3], denial, intellectualization, abstraction, and humor. An important characteristic of defense mechanisms is "ambivalence." Ambivalence refers to the idea that protective mechanisms also involve a cost to the

[3] Defense mechanism of dividing beliefs into good and bad and by focusing on their positive or negative attributes

individual. Therefore a defense mechanism is one human tool that works as a protective factor, which in itself can facilitate the process of resilience. Those protective mechanisms will interact with other factors like context, social support and age to shape a unique pattern of recovery for each individual. In other words, traumatic experiences will develop a unique spectrum of answers depending on the mutual influence of every person's internal and external factors. (Cyrulnik, 2011, pp. 7-16).

In Cyrulnik's perspective, resilience is an internal mechanism of learning how to live. This mechanism is developed as a process of "turning obstacle into trampoline, impossibilities into a set of possibilities" (Cyrulnik, 2011, p. 274). The notion of resilience places the emphasis on the human ability to adapt and evolve, so it is an ongoing process whose outcome is possible to identify only after a reasonable restoration time for the wounded individual. Resilience is a mechanism that explains two facts: first, it is proof that survival is possible, and second, it is proof that people are structured as an "oxymoron." (Cyrulnik, 2011, pp. 21-24). The idea of an oxymoron structure reveals the conflicting emotions of someone who, having suffered, is able to use his own energy to bring together anything that still produces some happiness and gives meaning to life. So, the human oxymoron structure is the root of the ambivalence characteristics of human defense mechanisms. This approach validates the existence of a past of suffering and contradictory emotions, which are the power of a wounded victor.

Resilience then, is composed of two stages: "bouncing back" and "knitting." Bouncing back involves all the permanent exchanges between people and their social context. Knitting arises from the metaphor of "the sweater knitted from developmental, emotional, and social strands of wool" (Cyrulnik, 2011, p. 51). Thus, people are able to

"knit" themselves because they choose to survive. Defense mechanisms are the tools used to "knit" themselves in a change process that Cyrulnik called a metamorphosis (Cyrulnik, 2011).

Cyrulnik assures that all disasters result in a metamorphosis (p. 274). Even when the outcome of metamorphosis is successful, it doesn't mean that the process was painless. So, for the author emotional vulnerability can be transformed into strength if people are prepared to pay the price. A metaphor to explain the painful process of a successful change is the way the oyster defends itself when a grain of sand gets into it - it produces a hard, shiny, and precious material, "the pearl" (Cyrulnik, 2011, p. 279).

Beyond a traumatic event in life, from a very different life experience, an extraordinary example of resilience is Aimee Mullins's story. She was born in 1976 without fibulae in both legs. In an attempt to increase her mobility, doctors amputated both legs under her knee on her first birthday. Just after one year she learned to walk on prosthetic legs, and spent her childhood doing the usual athletic activities of her peers: swimming, biking, softball, soccer, and skiing (Inc. w. , 2014).

Aimee's resilience message (Mullins, 2010) is based on her strong conviction about advancing her desires beyond the limits that nature imposed on her. Her belief is that everyone has something to offer to the society, which I understand as purpose beyond adversity. Her actual experience of life was knitted by her attitude, combining hope, sense of humor, and the ability to adapt and prevail. Of course, she didn't have the chance to choose her physical condition, but what she did choose was to adapt. For example, she was the first amputee in the world to compete in the National Collegiate

Athletic Association (NCAA). She was also the first person to use woven carbon-fiber prostheses, which are now the standard in sports prosthetics (Inc. w. , 2014).

Mullins shares her experience with prostheses. She uses humor as a defense mechanism because she is able to laugh about herself. She shares her pain of going through adversity but also achieving her goals. For instance, she became a founding member of the leadership board of SPIRE Institute, the world's largest and most diverse athletic development center. Besides this, she has her career as a model and actress in New York, USA (Ted.com, 1998). These achievements are good examples of hope, because a resilient life will show that light is always at the end of the tunnel, the same principle that Cyrulnick observed in resilient children.

Mullins (2010) challenged the traditional way of understanding disabilities, reframing the idea of having a physical limitation. She encourages people to be aware of the way we use our language to limit others, and instead she proposes to open doors and find the opportunities under adversity. The way to do it is based on going beyond any labeling or prognosis. Her advice is to embrace, to welcome, and to dance with adversity, to see adversity as something normal, which is pushing one to take the journey to change, and to make a transformation. Her adaptation to her reality confirms Cyrulnik's idea of the "oxymoron," in her case using the ambivalence of pain and physical difference as a part of her life and as the reason for being capable and knitting her own future.

A third perspective on resilience is that of Viktor Frankl (2006), an Austrian neurologist and psychiatrist who survived after three years in Auschwitz and other concentration camps. After his release, he returned to Vienna to resume his career as a

psychiatrist, reintegrated into his Viennese society, and two years later married his second wife. His legacy is well recognized by the creation of the Logotherapy (Psychotherapy based on meaning).

Different from Cyrulnik, whose observations were based on children's experiences, and different from Aimee Mullins, who overcame a physical condition, Frankl bases his insights on his adult experience of sharing life with other men who were denigrated and forced to work in extreme conditions of cold, hunger, and illness. Despite the different source of challenge, Frankl, like Mullins and Cyrulnik, transformed his personal trauma into a meaningful experience.

Frankl didn't use the term resilience, but his observations and learning are good examples of resilience as defined by Cyrulnik, i.e., a mechanism based on process, purpose, and hope. For example, he describes the life in a concentration camp through three different stages: the admission to the camp, the period when people are adapted to the camp routine, and the period after their liberation (a process). Each stage was a challenge to learn from himself and from others. Emotional reactions and the idea of knowing how to deal with adversity were very important in having a daily reason to overcome the obstacles (a purpose). Frankl identified, amid the continuous threats of death, people who permanently hoped to be rescued and to get their lives back (hope).

Viktor Frankl was able to distinguish specific psychological mechanisms of defense to deal with adversity. A sense of humor is common to Cyrulnik and Mullins. In addition to that, Frankl highlighted the idea of positive visualization. Envisioning life after the suffering was a very common practice, thereby connecting the soul with hope and happiness.

Another mechanism of defense mentioned by Frankl is the power of emotional control, not only to dismiss the pain but also to connect with love, love as "the highest goal to which man can aspire" (Frankl, 2006, p. 37). Love -- in the sense of how people are able to connect their minds with the contemplation of their beloved ones, the "freedom" to talk, see, and even feel your beloved one -- was his way to transcend the constant threats of death.

Ambivalence seems to be a constant in the process of not succumbing to adversity. Even in his experience in a concentration camp, where suffering was omnipresent, Frankl mastered the art of living, which allowed him to see things with a sense of humor (Frankl, 2006, p. 44). The structure as an oxymoron was clearly described by Frankl in almost every decision that he made and even in the relationship that he developed with some of his guards. For example, having been offered a visa to escape from Vienna prior to his incarceration, he decided to stay to take care of his parents, knowing that he and his family would be sent to a concentration camp. Later, during his capture, he was able to listen to and support a guard who was having trouble in his marriage. Close to his liberation he was sent to take care of others as a doctor, at the same time still being a prisoner, hungry and ill.

Frankl learned the process of becoming resilient after he was liberated. He experienced the two facets of bouncing back and knitting. Bouncing back explains the way that people go through a painful metamorphosis. In the process of knitting his future, Frankl identified the power of meaning so that his whole metamorphosis was illuminated by the light of the clarity at the end of the tunnel, in his case a persevering idea of writing his book and helping others find their meaning.

To use the power of finding meaning is a suggestion from the last individual experience that I want to describe. This story is about the efforts of a man to become resilient in spite of knowing that he was dying. This is the case of Robert Schimmel (2008) an American comedian who was diagnosed with severe lymphoma in the spring of 2000. Schimmel's experience, having previously lost his eleven-year-old daughter to leukemia, presents a strong message of optimism and lessons learned after living through adversity. His life with cancer and chemotherapy was a big challenge for himself and his family. His story is a good example of metamorphosis after an unexpected situation, and what tools were more appropriate to his situation.

The challenge of cancer changed Schimmel's life. He went through a deep process of denial, understanding, and acceptance, finally experiencing a metamorphosis. His purpose was getting to know himself, his boundaries, and trying to go beyond nature and any medical prognosis. Even though maintaining hope was a hard exercise, he found his best tools in his ability to laugh and love.

The process of changing was focused on his own desires and on his loved ones. He developed an intense insight and awareness about his feelings and needs. In addition to the resilience characteristics reviewed above, Schimmel introduces the idea of support. Even though the deep recognition of being alone and trying to find your strengths is a very individual process, support is necessary. Finding support in peers, friends, and mainly family, present or not, is enough encouragement to fight to become resilient.

To summarize, research on resilience (Bhamra et al. 2011; Suctlife & Vogus, 2003) has suggested that individual resilience is a complex concept, multifactorial, strongly connected with the context of human beings, and far distant from any attempt to

define it as a static and lineal personality trait. As the examples have shown, individuals develop the ability to become resilient through the way they choose to deal with complex contexts. As a process of learning and development, becoming resilient requires the strengths of people. Common strengths necessary to put into play are sense of humor, adaptability, purpose, and hope. In my opinion, the vast potential of human beings can show in any challenging situation, as the stories above demonstrate. I strongly believe that people have much more capability to overcome their adverse realities than we can even imagine.

Individual Resilience at work

In a work context, but still from an individual perspective, Bill George (2014) applies the concept of resilience as one of the key skills to develop in order to become an Authentic Global Leader. In George's words, "the journey to develop Authentic Leadership is only possible after the difficult experiences that any leader has to face" (George, True North, 2007, p. 24). George is a professor of management practice at the Harvard Business School and former chairman and CEO of Medtronic (medical technology company). For his book *True North* (2007), he and his colleagues interviewed 125 "authentic leaders" to learn how business leaders develop. Authentic leaders are called such in terms of pursuing: purpose with passion, practicing solid values, leading with heart, establishing connected relationships, demonstrating self-discipline. They were selected based on their perceived authenticity and established success in leadership roles. The study made an attempt to consider a diverse set of people in an age range between 23 and 93 years old, 28 percent were women, 8 percent were racial minority and 12 percent were born outside the United States.

George uses individual stories of successful leaders to explain the high importance of having a "true north" as a leader. True north refers to the process of understanding one's own personal story. By understanding their formative experiences, authentic leaders have been able to reframe their life stories and their leadership around fulfilling their passions and following their purpose. "Purpose" is deeply understanding how to manage passion in order to make an impact in the world, as in geography the true north refers to the unique direction from any point along a meridian towards the North Pole (Collins English Dictionary, 2014). Through the act of reframing their stories, people are able to connect the dots of their past and their future, and thus find their inspiration to lead authentically (George, True North, 2007, p. 15).

George identifies the process of becoming an authentic leader as a three-phase cycle: the phase of preparing, the phase of leading, and the phase of giving back. Every phase will have an iterative pattern with continuous challenges, successes, and failures, which will enable leaders to grow and discover their authentic leadership. The idea of bouncing back, learning, and building their transformation is omnipresent in every challenge cycle of their personal and professional life.

Another key element in the leadership development process is what George called the transformation from "I" to "We," meaning that leadership is about empowering others. It is desirable that leaders understand this after a positive experience, but what the research showed is that transformations from "I" to "We" are, for many leaders, the result of going through a crucible (George, True North, 2007, p. 45). This challenging process reminds me of what Cyrulnik (2011) refers to as the painful metamorphosis. When leaders are sensitive enough to look at themselves with a critical eye, they will be

compelled to find their purpose and reframe their context, and then they will be prepared to start the journey to authentic leadership. In terms of individual resilience, the process of becoming an authentic leader is a good example of the concept of ambivalence (Frankl, 2006) mentioned before in this chapter.

George's approach is an interesting point of view in terms of understanding the ability of resilience as a leadership skill. He clearly describes resilience as part of the leadership journey, as an emotional and difficult process that requires deep insight. Resilience is a stage of the leadership cycle, a continuous process of learning that will be meaningful once one knows his or her purpose, understands others, and is able to reframe one's context.

In my opinion, George makes a good attempt to identify resilience as a leadership skill in the business environment, but I would raise the warning that the leader figure might not always be at the top of the traditional management pyramid. George located leaders who were visionary and empowering people in a superior hierarchy because they know where to lead the organization. I think that resilience leaders are indisputably needed, but their necessary position at the top of hierarchy has also changed. Resilience leaders will also be found in a non-hierarchical context, willing to transform themselves, but also to transform their organizations.

A second attempt to apply resilience to an organizational context is what Patakos (2010) does in applying Logotherapy (Viktor Frankl's school) at work. Alex Patakos is the founder of the Center for Meaning, based in Santa Fe, New Mexico, USA. He has been dedicated to developing Dr. Frankl's principles and helping people and organizations find meaning in their lives and work (Patakos, 2010).

Patakos highlights three basic components of Logotherapy to put into practice at work: 1) People can become a product of their decisions not their conditions. This statement illustrates the power of each individual to choose their response to their circumstances, as an act of freedom to prevent frustration. 2) Each person doing a job gives meaning to it. Here Patakos is rejecting all the influences from the socio-economic context of workers, which to me sounds impossible in a global world, which, therefore, let me ascertain the complexity of finding meaning in a context of change and uncertainty such as that during the concentration camp. The positive side of this statement is that the exercise of looking for meaning is the key to unlocking ourselves from our limited perspectives, which could be a very interesting motivator to promote innovation and creativity, wherein people became able to look for change instead of avoiding it. 3) People don't need to suffer to learn, but if you don't learn from suffering, then your life becomes truly meaningless. Patakos asserts that using the freedom to choose your answer to adversity and being able to find meaning in your circumstances will put you in a virtuous cycle of resilience that will make you and your team strong in the future. This idea of a virtuous cycle of meaning and resilience can be helpful to apply in an organizational context, by creating the conditions to promote this virtuous mechanism. A good example is found in some companies that develop a work system where failure and dealing with adversity is a very important stage of development. Google and Pixar are cases of well-known companies that are able to -- even eager to-- learn from failures.

Patakos describes four specific techniques to find meaning at work: first, stop complaining. Since meaning can be found anywhere, at any moment, the first step at the workplace is to stop complaining because it gives only momentary satisfaction and

ultimately undermines the integrity of people's experience. Second, exercise freedom. Even though all people have the freedom to choose their attitude towards work, the real exercise is to make an active choice to exercise it. Patakos advises appealing to people's self-awareness to discover their attitude and then find their willingness to change it when it is necessary. Third, de-reflection. This refers to the ability to shift the focus of attention onto things that matter to each person by bolstering their positive experiences, diverting attention from things they dislike, and exerting their freedom of imagination. The simple exercise of de-reflecting will lead people to constructive resolutions, because it develops a perception of something new in a situation, and it changes old patterns of behavior. Fourth, self-detachment. This refers to the human capability to look at ourselves, take a different perspective, and maintain a sense of humor. The ability to see ourselves frees us to be more receptive to opportunities and increases our awareness. In fact, the ability to laugh at ourselves lets us frame our work as something we do but not who we are.

Patakos offers a guide to improving individual lives following the Logotherapy principles with simple and practical examples. He assures us that these examples are applicable to any context or level of complexity. In my opinion, to become resilient at work using his principles, people will need to have deep self-awareness. I think the focus on self-awareness makes the Logotherapy methodology a very helpful tool in a complex and global world, but paradoxically an attitude of self-awareness might be hard to cultivate in today's work. His application of Logotherapy gives a very interesting role to the persons he calls "transition figures," which means those people who break with past cultural, mindless patterns of behavior and attitudes (Patakos, 2010, p. 273). In my

understanding, it constitutes a good starting point to becoming resilient, but it is not enough to develop organizational resilience.

I think that Patakos' expectation is that, as a consequence of applying Logotherapy at work, we might have better leaders and workers. However, we don't know how it will be transferred to the organizations where those leaders are. Unfortunately, Patakos' principles are based on a very individual perspective. In my opinion, an organization as a complex system that is able to discover its purpose and develops its own meaning would indeed assure better methods to deal with adversity and become resilient, but Patakos doesn't clarify how to accomplish this. Though Logotherapy's constructs may be useful designing the process of organizational resilience if not its development or implementation.

Risk Management

Countries, communities, organizations and individuals are all subject to a diverse and always challenging set of contexts (Bhamra, Dani, & Burnard, 2012). Unexpected events often test our resilience, but what makes a difference is how those entities manage uncertainty (Sutcliffe & Weick, 2007). Demands for certainty seem to be inherent in human beings, while at the same time their natural environment has always been uncertain, presenting events like earthquakes, volcano eruptions, and other natural disasters. Organizations are built in between the individual human need for certainty and the uncertain natural environment. As the business world has developed, the rhythm of change has been incremental, but the new world of rapid continuous change has influenced organizations to evolve, adapt, innovate, and respond quickly and often

exponentially. To face this, individuals have implemented strategies to deal with uncertainty, and business has developed the discipline of risk management (RM).

Risk has evolved from a traditional idea of an inevitable and negative event into a broader understanding that risks reflect uncertainty that can have a positive or negative effect in strategic objectives (Hillson, 2009). Hubbard (2009) proposes a simple definition of RM as "being smart about taking chances." (p. 311) Although simple, this definition is broad enough to demonstrate that, beyond any method, the risk management goal is "to minimize risk in some area of the firm relative to the opportunities being sought, given resource constraints" (p. 315).

Considering RM as a discipline to enable organizations to make appropriate decisions, the challenge is how to determine an adequate response. To achieve the appropriate answer, Hillson (2009) distinguishes two kinds of uncertainties: those that affect our objectives and those that do not. The first ones are subject to management, they have an objective component based in fact or truth, they arise randomly with known probabilities, and he called them risks. The second ones are not manageable, they belong to the subjective realm of belief, they arise from an unknown probability of occurrence and he called them irrelevance or intellectual curiosity; they can be ignored, because they do not affect the organization's objectives. The act of ignoring an uncertainty only helps to prioritize the action plan to manage risks, but because RM is an iterative process, some uncertainties can be ignored, but never discarded.

The two dimensions of risks are uncertainty and effect. Uncertainty describes the probability of something to occur, and the effect refers to the positive/negative consequences the event causes (Project Management Institute Inc., 2009). The outcome

of managing risk is to reduce the number of threats that turn into problems, and to minimize the effect of those that do occur. Failing to manage risks on projects will affect their success, so we can state that RM is a critical determinant of failure or success (Hillson, 2009).

Once an organization has defined its risks, it should develop a methodology to manage them. To manage risk, Kaplan & Mikes (2012) focused on the organization's ability to identify its risks and its flexibility in defining the best methodology for making decisions. The authors suggest a qualitative distinction among types of risks: preventable risks, strategy risks, and external risks. These distinctions will allow identifying a more accurate managing methodology (Kaplan & Mikes, 2012).

Preventable risks are those that appear within organizations. They are controllable and could be eliminated or avoided. Those risks don't have a strategic impact. In fact, all they require is an active prevention, with a leader willing to control processes and behaviors. The first action to manage preventable risks is to provide guidelines clarifying the company's goals and internal values (Kaplan & Mikes, 2012).

Strategic risks are not totally undesirable because some industries require taking more risk, and managing it, to achieve their potential gains. The more adequate strategy is to have a risk management system designed to reduce the probability of injuring the organization's objectives by managing or containing the risks (Kaplan & Mikes, 2012).

External or uncontrollable risks can be natural, political, or macroeconomic disasters. Because they are not preventable risks, managing them focuses on identification and mitigation of their impact (Kaplan & Mikes, 2012).

Kaplan and Mikes (2012) suggest that strategy and external risks require a clear understanding of the organization's context and the ability to design an ad-hoc approach. That means that managing strategic or external risks cannot be standardized. On the contrary, doing so encourages challenging the status quo, assessing the existing assumptions, and debating the risk information. The process should be based on open discussions, finding cost-effective ways to reduce the likelihood of risk events or mitigating its consequences.

In the article, "Management Risk: A new Framework" (2012), Kaplan and Mikes assert the key elements to consider in order to manage an uncontrollable risk: a systematic and iterative process for identifying risks; a systematic and iterative system to mitigate risks; a risk oversight structure; an analytic approach depending on the source of external risks; and a specific function to handle risks inside the company, which might have a strong relationship with senior leadership. The following table (Kaplan & Mikes, 2012) is a good guide to understand the difference between the risk types and their managing approaches:

Table 3: Risks Category and Organizational Approach to manage it

Category 1	Category 2	Category 3
Preventable Risks	Strategy Risks	External Risks
Risk Mitigation Objective		
avoid or eliminate occur- rence cost-effectively	Reduce likelihood and impact cost-effectively	Reduce impact cost- effectively should risk event occur
Control Model		
integrated culture-and- compliance model: develop mission state- ment; values and belief systems; rules and bound- ary systems; standard operating procedures; internal controls and internal audit	interactive discussions about risks to strategic objectives drawing on tools such as: • Maps of likelihood and impact of identified risks • key risk indicator (kRi) scorecards Resource allocation to mitigate critical risk events	"envisioning" risks through: • tail-risk assessments and stress testing • Scenario planning • war-gaming
Role of Risk-Management Staff Function		
Coordinates, oversees, and revises specific risk controls with internal audit function	and revises specific risk controls with internal audit function Runs risk workshops and risk review meetings Helps develop portfolio of risk initiatives and their funding acts as devil's advocates	Runs stress-testing, scenario-planning and war-gaming exercises with management team acts as devil's advocates
Relationship of the Risk-Management function to business units		
acts as independent overseers	acts as independent facilitators, independent experts, or embedded experts	Complements strategy team or serves as independent facilitators of "envisioning" exercises

As we observe, the discipline of risk management has evolved in a way that permits managers and decision makers to distinguish risks categories. Each risk category is linked to an ad-hoc model to assure results that affect positively the organization's objectives. The idea of managing risk and its relation with the concept of resilience is what I will describe in the next section.

Risk Management and Resilience

People tend to be overconfident about their ability to predict events that are heavily determined by chance. In addition to that, people anchor their estimation to readily available evidence, with a natural human bias that usually leads them to support

their own positions and to discard contradictory information (Kaplan & Mikes, 2012). Organizational biases work under the same pattern, and inhibit leaders/workers' ability to discuss risk and failure. That is why managing risk effectively must counteract those biases and become a tool to manage the unexpected in an effective way.

Unexpected events often audit our resilience (Sutcliffe & Weick, 2007, p. 1). In other words, any unexpected event challenges how people deal with it, and then how they are able to recover. "Managing the Unexpected" (Sutcliffe & Weick, 2007) presents an interesting review of how some organizations' practices reduce the effects of unexpected events and how those organizations speed up the process of recovering. The authors named those organizations High Reliability Organizations (HROs). Good examples of HROs are emergency rooms in hospitals, flight operations of aircraft carriers, and firefighting units. Usually, these organizations don't have more than one chance to function reliably and to ensure high, stable performance.

HROs develop mindful infrastructures to manage unexpected risks, which are permanently focusing on two lines of action: the capacity to anticipate, and the ability to contain the unexpected. The first element, acting with anticipation, involves the practices of becoming aware of the unexpected early enough to act before the problem becomes severe. To achieve this level of awareness, it is necessary to pay attention to minor failures, avoid simplification or categorization, and operate with a high sense of context. The second element, containing the unexpected, involves the act of preventing unwanted outcomes after an unexpected event. The organization structure to prevent these unwanted outcomes needs a real commitment to resilience and deference to expertise (Sutcliffe & Weick, 2007).

A mindful infrastructure requires the organization to continuously assess the environment and focus on its strengths. Additionally, the organization needs the skill of flexibility not only to respond to the context stimulus but also to improve the ability to make decisions with purpose. When organizations fail to manage risks, they are less capable of becoming resilient. The ability to anticipate risks creates a work culture that is able to embrace instability, and accept adversity in a proactive way. Even when organizations have to deal with unforeseeable risks, just because they include risks as part of their manageable skills, they are better prepared to find creative ways to solve or contain the unexpected. That is why risk management represents an elemental tool in the process of facing adversity and becoming resilient (Sutcliffe & Weick, 2007).

Even if the organization follows the risk management process, however, it will not assure success; in fact, following the process is not enough. Only people who use the results of the risk process to modify decisions, behaviors and actions will achieve the management of risk. Every step in the risk process requires decisions to be made and each of these decisions is influenced by people's attitude toward risk (Hillson, 2009).

Attitude toward risk is affected by three main factors: conscious, unconscious and affective. Conscious factors are the visible and measurable characteristics of any risk. Unconscious factors are mental biases based on previous experiences. Affective factors are feelings and emotions that tend to influence how people react (Hillson, 2009). Considering resilience as a human attitude, resilience might be affected by those three factors and indeed affect the risk management process.

Crisis Management

A crisis for an organization is, by definition, an extreme event that causes substantial injuries, deaths and financial costs, as well as serious damage to its corporate reputation (Mitroff, 2005). Crisis is characterized by low probability and high consequence events that threaten the fundamental organizational goals. I will describe two perspectives of crisis management. The first one refers to the enactment lenses, which identify human actions that influence the crisis process (Weick, 1988), and the second perspective considers the organizational context as a critical factor of a crisis (Mitroff, Pearson, & Harrington, 1996).

To face a crisis, Weick (1988) identifies actions that at the same time help to understand what is happening and to solve the crisis. Unfortunately this double effect usually creates a tension between making sense and taking actions, which can sometimes intensify a crisis. Weick (1988) interprets this tension as the enacting perspective, which means that people's actions bring into existence events, structures, constraints and opportunities that were not there before. Therefore "all crises have an enacted quality once a person takes the first action" (Weick, 1988, p. 309). Actions are influenced by people's perceptions of their environment, their commitment, their capacities to solve the crisis, and their expectations.

In order to manage a crisis, Weick (1988) suggests a broader perspective than only a reactive activity directed at a problem. He suggests having an enactment perspective that will unfold several aspects that in normal times are overlooked, such as the psychology of control, stress levels affected by actions, and the speed of interactions. Considering those under-attended aspects, it is essential to build in the methodology of

crisis prevention and management, because it will help in understanding how individuals generate their own environment, including crisis environments. Therefore crisis management involves bringing crisis to lower levels of intensity, increased skills levels and increased self-awareness (Weick, 1988).

Mitroff, Pearson, & Harrington (1996) identified the challenging characteristics of the organizational context. The challenge is not a question of whether an organization will experience a crisis, but only a matter of what type of crisis will occur, what form it will take, and how and when it will happen.

The guide by Mitroff et al. (1996) establishes that the key factor to perform well during a crisis is to be prepared for it. Unfortunately, what is clear to me in his approach is that there is not a unique plan to follow, nor a unique way to learn what to do before, during and after any crisis. That is why his guide should be customized, based on the organization's experience and the iterative process of learning.

Crisis Management (CM) preparation is an iterative process to understand how well an organization is prepared to manage an unexpected event. The main goal for the preparation phase is to design a CM profile that describes the organizational big picture related to four factors: types of crisis for which the organization is prepared; phases for which the organization is well prepared (detect, contain, recover, and learn); systems that are to be managed; and stakeholders, such as individual or institutions that are going to be affected or that could affect the ability to manage the crisis.

In order to define CM, the inputs to look for are the past crisis history, if it exists; past crisis training, if it exists; and the most important is a set of confidential and anonymous interviews. Interviews should assure a high level of analysis that is able to

capture what CM means for executive, staff and key worker representatives. When a crisis occurs, it is very important to consider utilizing several organization systems that are interconnected and affecting the crisis. Each step leads us to a specific set of decisions that will help in taking control over the unexpected. The decision-making process at stake at this moment should be supported by stakeholders or inside workers with experience and knowledge.

Mitroff et al. (1996, p. 10) suggest following a specific flow, which will not only lead the organization through the complexity of the CM process (see Appendix B), but also to discover their internal needs to manage it. The main questions to solve are these: What is the source of the crisis? Should the organization move into an active crisis response mode? What kind of crisis is the organization facing? What has to be communicated and when? Because there are so many variables to consider, the most important lesson learned is that every organization needs to formulate criteria for action that are adequate for each situation. A good way to start is to follow the Mitroff et al. guide, but this is not enough if the organization does not go through the work of building those criteria. The risk of not having defined the criteria will only intensify the crisis in terms of costs, time and potential damage. (Mitroff, Pearson, & Harrington, 1996).

If the organization is proactive and is prepared for CM, then a precipitating crisis will next trigger the decision of activating the crisis management team (CMT). Members of the team need to be selected with care and caution, it should contain the smallest number of persons necessary to cope with a crisis, and its main role is facilitator. As a facilitator, the team has to make sure that all members have access to the same body of information. If the organization is not prepared, Mitroff suggests that each senior officer

should be notified to take the responsibility to make the future decisions that will be needed (1996).

Once the organization identifies the kind of crisis, the five components of the factor phases are: signal detection, preparation/prevention/probing, damage containment, business recovery and learning. Identifying warning signals associated with the crisis permits to decide how to handle the crisis in terms of communication, and to prevent this information from making the crisis worse. It is also a topic of analysis to understand, after the crisis, if any information was blocked or how it was transmitted that it didn't help anticipating the crisis. When the organization is able to assess what happened and assess its tools to face the crisis, it is time to determine subsequent actions to contain the crisis, treat it, communicate it to the authorities and other stakeholders, and learn from the crisis (Mitroff, Pearson, & Harrington, 1996).

Mitroff et al. (1996) suggest conducting, after every crisis, a series of broad interviews with executives, staff and key workers representatives. These interviews identify the specific type of crisis and its causes, identify the contributing factors to the crisis, analyze the organization's response, and integrate the lessons learned. The goal of this phase is to integrate the lessons learned into the organization's daily life, focusing on a specific event afterward. In my opinion, this is a great opportunity to build the organization's resilience because it forces the organization to understand the crisis they experienced and to develop the knowledge from its own experience to become a better company after the crisis. In other words, this is a chance to transfer the human structure of the oxymoron into the organization procedures. It is also the opportunity to build

individual resilience because people will be able to incorporate their organizational experience into their personal lives.

Following the guide by Mitroff et al. (1996), it is clear that managing a crisis is a complex process of managing interconnected systems, where the whole organization is needed. More than a methodology, it is the art of finding the best way to follow the waves of change. Mitroff's academic research and professional consultation add seven potential characteristics that have to be in place in order to emerge stronger and better from a crisis. The seven essential lessons, and what they demand from the organization, are presented in the next table (2005):

Table 4: Seven Essentials Lessons for Surviving Disaster

Seven potential challenges	What they demand from the organization
Right heart	Exceptional emotional intelligence and emotional resilience.
Right thinking	High creative intelligence, exercised from inside the organization.
Right soul	Special type of spiritual intelligence.
Right social and political skills	Assess our traditional assumptions and discover the interconnection of the complex system related to our business and the specific crisis.
Right technical skills	The ability to recognize differences and respect diversity.
Right integration	Integrative intelligence to combine all the skills and the complexity of the system.
Right transfer	New forms of intelligence that enable us to see the world from a different perspective.

In my opinion, these seven lessons learned are a good example of the complexity of a crisis. Mitroff et al. (1996) introduce the idea that CM is not only a matter of procedure, but also a matter of new ways of thinking. The strong interaction among different perspectives and intelligence types (cognitive, emotional, etc.) is also a strength to develop in resilience organizations.

In my opinion, Mitroff's major contribution is organizing the phases and guides to manage the crisis. The consideration of a crisis management team is a big challenge for organizations because it defines a new power entity responsible for the process, which might gather the best expert representatives and lead the organization to have a systemic approach to face a complex problem. The traditional idea of assigning only to one leader the responsibility to manage the crisis makes organizations more vulnerable because of their dependence on some specific persons, and they waste the chance of creating synergy and a sense of team that empowers the decision-making process.

Despite the high contribution from Mitroff et al., I still do not solve two aspects of the resilience management process. Is the analytical process suggested viable in a context of urgency? In other words, are organizations able to conduct the assessment process with high context pressure? I wonder if the emotional context could be a big obstacle in that challenge, or, on the contrary, a context of pressure will bring about the enacting actions described by Weick (1988) and 21st century organizations will not have other chance but to be reliable. In my opinion, the assessment process is valuable, but it might need some additional analytical tools to support or at least minimize the fact that all decisions will have an emotional bias. CMT is a good way to do it, but I am not sure if it is enough. The second aspect to solve is how we, the people from the social sciences field, being so aware of the benefits of managing a crisis to become resilient, can assist organizations that still have not developed resilience as a characteristic of their culture.

Organizational Resilience

Organizational resilience appears as a concept to develop in all organizations facing the challenge of rapid changes the global 21st century brings about. I will describe

organizational resilience on the basis of two frameworks: "Mastering Turbulence" (Mc Cann & Selsky, 2012), which focuses on how to achieve agile and resilient individuals, teams and organizations; and "Managing the Unexpected" (Sutcliffe & Weick, 2007), which focuses on high reliability organizations. Even though they have two different focuses for their analyses, both approaches complement each other in understanding organizational resilience, and supporting the idea of organizational resilience as part of a complex system that strives for flexibility and multilevel analysis.

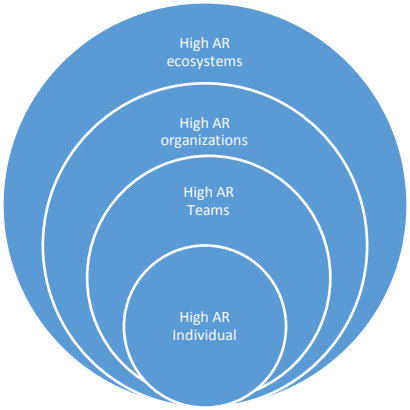
Mc Cann & Selsky (2012), both graduates of The Wharton School of the University of Pennsylvania, provide an analysis based on their academic research and their work with a variety of professionals and organizations, which focuses on high agility and resilient organizations as a new perspective and framework to enable organizations to understand the pace and disruptiveness of change, and to develop the capabilities needed to master it. The authors understand organizational resilience as "the capacity for resisting, absorbing, and responding, even reinventing if required, in response to fast and/or disruptive change that cannot be avoided" (McCann, Selsky, & Lee, as cited in MCCann &Selsky, 2012, p.9).

The main purpose of their approach is to demonstrate the interconnection among the organizational activities that contribute to gain high resilience and agility. A system composed of agility and resilience (AR) is the support for the organization's adaptability to master turbulence, i.e. any disruptive change that might affect the organization's core vision and mission (Mc Cann & Selsky, 2012).

The focus of analysis is located in a multilevel system: Individual, Team, Organization, and Ecosystem. Each element of the system is related to one another,

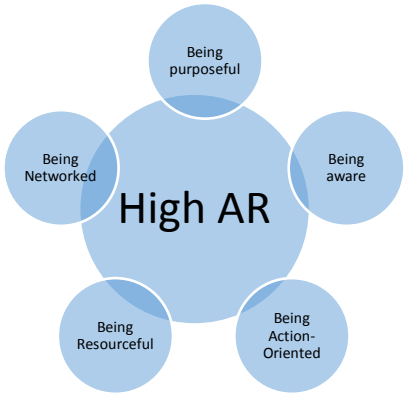
influencing them in a permanent interaction. Each part of the system by itself is not enough to empower organizations facing turbulences, so all of them must work together in a strategic and systematic way (Mc Cann & Selsky, 2012). The interconnected systems are shown next (Mc Cann & Selsky, 2012):

Figure 1: Interconnected Systems



The mechanism of working together in synergy, to develop agile and reliable organizations, is possible when each level of the system develops five critical capabilities that are purposeful, aware, action-oriented, resourceful, and intelligently networked. As shown in Figure 2, developing those capabilities means for Mc Cann & Selsky (2012) translating them into actions, which might be harmonized and aligned across all four levels.

Figure 2: Five Capabilities for Agile and Resilient Organizations.



As a result of a systemic approach, the organization will be able to develop highly agile and resilient systems for addressing adversity, which will in turn create the adequate tools to deal with incremental and continuous change in the global world. In addition to that, Mc Cann & Selsky (2012, p. 17) assure that higher levels of AR are associated with higher organizational competitiveness and profitability.

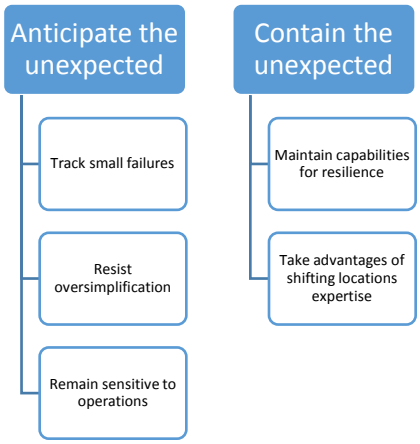
In "Mastering Turbulence" (Mc Cann & Selsky, 2012), the authors established the AR system as a critical dimension of the adaptive capacity that will provide enough flexibility for the systems to expand their repertory of adaptive strategies and achieve superior performance. As part of a complex system that affects all four levels of the organization, the AR system becomes a key element of the organizational design.

The second approach to review is "Managing the unexpected" by Sutcliffe & Weick (2007), who are both professors at the University of Michigan, which identifies specific organizations to find commonalities and lessons learned on how to create mindful organizational infrastructure that allows other organizations to deal efficiently with the unexpected changes of the century.

The focus of analysis, in this approach, is narrowed to some specific organizations that they call "High Reliability Organizations" (HROs), as discussed above, a term adopted from research by Robert, Rochlin, and La Porte, at the University of Berkeley in California [as cited in Sutcliffe & Weick, 2007, p. 164]. HROs refer to organizations that do not have any other chance but to function reliably, to prevent worse consequences in an unexpected context. They understand organizational resilience as the ability to recover, and resilient actions as the whole sets of activities that enable the organization to recombine fragments of past experiences into novel responses (Sutcliffe & Weick, 2007).

Suctliffe and Weick (2007) followed the question of how and why some organizations are much more capable of maintaining operations, keeping structure and becoming stronger to face future challenges. HROs create a collective state of mindfulness, a strong ability to embrace and fix errors, and an internal structure that exercises, in an iterative process, the capacity to anticipate and contain the unexpected. The internal HROs' infrastructure is shown in Figure 3:

Figure 3: Internal HROs Infrastructure to Manage Unexpected Events



Besides the structure to support their decisions and activities to deal with the unexpected, the authors highlight that HROs are aware of what they don't know. For example, they know that they don't have experience with all the possibilities of failure in their system, and they have not deduced all possible failure modes. In addition to that, they have high liabilities for overconfidence.

HROs have a culture of being mindful about errors that have already occurred, and correcting them before they worsen and cause more serious harm (Sutcliffe & Weick, 2007, p. 68). The commitment for resilience is based on the assumption that unexpected trouble is ubiquitous and unpredictable, thus resilience occurs when the system continues to operate despite failures in some of its parts or it quickly recovers its ability during,

after, or in the presence of continuous stress. In other words, resilience organizations do not lose control of what they do but are able to rebound (Sutcliffe & Weick, 2007).

The three main components of resilience are ability to absorb strain and preserve functionality, ability to recover or bounce back, and ability to learn and grow from previous episodes of resilient actions. Those components lead the adjustment and changes that the organization is experiencing; in this process it is highly probable that the organization becomes a different entity.

As Mc Cann & Selsky and Sutcliffe & Weick establish, once the resilience system is put into action, if the organization's conclusion is to build rules or become stricter, it will reduce the flexibility that is needed for the moment and for the future. Both approaches suggest that a resilience system should preserve flexibility to expand the organization's response capabilities instead of elaborating rules. Organizational resilience is a complex and flexible system of interconnected activities.

This second chapter attempts to review several concepts that are related to the notion of resilience. I highlight the idea of resilience as an attitude, a mechanism and an outcome. In addition to that, resilience is composed of multidisciplinary and multifaceted elements that inform about the current world complexity. After every concept I add my own perspective, to contribute with some personal ideas and promote the reader's self-insights. Establishing a common understanding of key concepts enables me now to invite you to observe, through the lens of organizational resilience, the next two cases that I am about to describe.

I have decided to use case studies to further study resilience beyond the conceptual offerings of this literature review. The first reason is very pragmatic and

responds to the fact that, being an international and full time student, I don't currently have formal access to a real organization. The second reason is I wanted to emphasize the enormous informative value of stories. As a clinical psychologist, the art of curing through words has been my passion in the last eight years of my career. As a mother, I use stories to engage my daughters in the journey of connecting the dots and learning new perspectives. As a consultant I have observed that storytelling is a powerful tool for leaders who are challenged to develop new ways of thinking. As a Chilean inhabitant, I have to highlight that the cultural transference from the native communities in Chile was all verbal. For example Atacameños natives speak kunza, which had no writing codes and it was only learned within the interaction of their people, and their stories. Atacameños and Araucanos were strong native cultures in Chile and both transfer their traditions based on metaphors and traditional stories. (Ministerio Desarrollo Social [Social Development Ministry], 1993).

"Story is a narrative account of an event or events" (Simmons, 2006, p. 30). The difference from an example is that stories add the emotional contents and sensory details in the way they are told. Stories, after teaching by example, are the second best way to influence others. Different from other methods of influence such persuasion or charisma, which are focused on pushing others, stories are a pull influence strategy that allows people to freely choose to trust your message or not. As a consequence of developing trust with an audience, stories help make sense in complex contexts, because they can reframe frustration into something meaningful (Simmons, 2006).

In an organizational level, storytelling has recognition as a skill to develop in leaders, and as a tool to facilitate change management (Denning, 2011). Storytelling

captures what the organization is and what it stands for. In that sense, stories communicate how organizations see the world, and see themselves and their interactions (2011, p. 194).

Finally, as a graduate student at Penn, I have been taught how to master learning in interactive seminars, wherein fellows from different backgrounds were generous enough to share their work or life experiences, which have enriched my knowledge during the Organizational Dynamics program.

The first case offers an example of Organizational Resilience in an American company after the attack to the Twin Towers in 2001. The second case is an example of a resilience plan in the state of Oregon, delivered in February 2013. Thus, I present cases on both organization and state levels for examination.

CHAPTER 3

ORGANIZATIONAL RESILIENCE, THE CASE

I remember the feelings after the music performance is over. Sitting on the stage, after several months, sometime years, of training, you realize that the show is already done. The adrenaline goes down, your body starts to feel cold and tired. All your body control is leaving you. You have corporal pain. You have mixed feelings; you feel empty, alone, exposed; and proud at the same time. All you have left are memories; public and private critics; and the wish to do it better the next time[4]*. Picture*[5]

The first time that I read the case "Organizational Resilience and Moral Purpose: Sandler O'Neill & Partners, LP, in the Aftermath of the September 11, 2001 World Trade Center Attack" (Freeman, Hirschhorn, & Maltz, 2003), I was starting my Organizational Dynamics program at Penn. It was just a month after leaving my country, my job, my town and bringing my family to live in the USA. Disregarding the differences, I was facing my own personal and familial crisis of dealing with the unexpected and trying to persist in our family plan to overcome adversity in order to knit our future. This amazing story of Sandler O'Neill & Partners managing the unexpected, becoming resilient, and successfully rebuilding themselves was my inspiration to reorganize my personal life and make the best of my experience of living for two years in the USA.

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[4] Ana Olivos, Paper introduction in my class "The Global New Normal" to analyze the financial crisis in 2008.

[5] Personal picture taken from "Pavana para una infanta difunta", private performance. Ana Olivos Santiago, Chile, 1990.

The case of Sandler O'Neill & Partners was presented at the Academy of Management Annual Meeting in Seattle, August 8, 2003, where it was selected as Best Paper by the Organizational Development & Change Division. In addition to that recognition, the case has a strong combination of describing what happened during a crisis, analyzing different information sources, and integrating different perspectives to develop organizational resilience. The case addresses a dramatic event for a company, and explores the situational factors that affected its recovery. It shows the high value of having different analysis perspectives, because the three investigators came from different backgrounds and each of them also played a different role (theoretical approach, data examination, and counselor) within the process of recovery. The case highlights the value of individual resilience as a guide to understand the complexity context and going beyond theory; therefore, it is an example of organizational resilience theory into practice. In that sense, the case shows resilience as a strategy to transform a painful process of change into an opportunity to improve. Sandler O'Neill is a case that explores all the concepts reviewed in chapter 2, such as individual resilience based on hope, purpose and process; the example of a true north in its leadership; the learning about risk and crisis management; and finally the evidence of how resilience as a mechanism is composed of attitude, complex mechanisms and outcomes.

In my opinion, the Sandler O'Neill & Partners case describes an event that had a broad impact on the lives of thousands of people in the USA and abroad, not only because it affected the center of the economic power of the world but also because it changed the way the world thinks about safety, power, and resilience.

The Firm History

Sandler O'Neill & Partners, L.P. (SOP) was founded in 1988 by senior executives from major Wall Street firms committed to building a new kind of firm focused on a deeper level of service to community banks (Sandler O'Neill & Partners, 2014). SOP is a full-service investment banking firm and broker/dealer focused on the financial services sector. Its main activity is to concentrate on helping clients grow their businesses for the long term. Its clients include a wide variety of community banks and thrift institutions, and they are currently the leading experts in advising regional, national and international companies (Sandler O'Neill & Partners, 2014).

Sandler O'Neill & Partners consists of about 300 financial professionals, principals who manage and operate the business and lead their teams with intense passion and pride. Its workers are considered industry leaders, experts in their respective disciplines and across the financial services sector (Sandler O'Neill & Partners, 2014). SOP believes that its people define its culture, and its cultural values are: integrity, intelligence, focus, diligence, and tenacity. SOP believes that its unique structure and culture enables it to draw resources from multiple parts of the firm to offer creative solutions and meet increasingly complex client needs (Sandler O'Neill & Partners, 2014).

Currently, in addition to the headquarters in New York City, SOP has offices in Boston, Chicago, San Francisco and Atlanta. It runs a mortgage finance operation and a registered investment advisor, Sandler O'Neill Advisors, L.P. Besides their business commitments, friends of Sandler O'Neill & Partners have established "The Sandler O'Neill Assistance Foundation" to provide financial and other assistance to families of the victims of the September 11, 2001 tragedy. While the Foundation will consider all

requests for financial assistance, it has chosen post-secondary education for the dependents of the Sandler O'Neill victims as its main priority (Sandler O'Neill & Partners, 2014).

September 11, 2001

Sandler O'Neill offices were located on the 104th floor of the World Trade Center's (WTC) South Tower. The morning of September 11, 2001 they lost 39% of their people, including two-thirds of their management committee, and nearly all of their physical assets and corporate records. The experience might be better understood by reviewing some other numbers of the catastrophe, as shown in the next table (Freeman, Hirschhorn, & Maltz, 2003):

Table 5: Data to Demonstrate the Dimension the Catastrophe

Description	Number of People
SOP employees, September 11, 2001.	171
Total based on the 104th floor of WTC.	149
Workers killed by the attacks (including 2 consultants, and two visitors).	62
Exited building and survived.	17
Witnessed events from concourse nearby.	24
Travelling or not yet at work.	42
Total based in satellite offices.	22
Total workers alive.	113
Workers killed from the Equity Department (Total 24).	20
Partners killed (Total 31).	9
Widows or widowers.	46
Children under the age of 18.	71
Parents who lost sons and daughters.	Over 100

The tragic list of facts and deaths shows the devastating dimension of destruction and its great breadth. Common sense would suggest expecting an emotional group of survivors, devastated after all this loss. A good example of the incredible turns in this

story is that even though SOP informed the news media that they would continue in business, CNBC misunderstood the message and broadcast just the opposite, which was more credible and understandable giving the circumstances, but contrary to the firm's desires.

The story after 9/11

The day after the attack, Jimmy Dunne, member of the management committee, and his remaining partners decided that the firm must survive. The first announcement was to set up a purpose and three main goals. The purpose was that the firm would remain in business as a proof of "not letting terrorists win and undermine America" (Freeman et al. p. 4). The goals: to determine the extent of human loss and care for the families of missing colleagues; to ensure the safety and health of all surviving employees; and to personally assure the firm's clients and friends that the firm would continue (Freeman, Hirschhorn, & Maltz, 2003).

The table below shows the milestones that SOP achieved in order to recover from the disaster.

Table 6: Recovery's Milestones

Description.	Date/Indicator
Decision that the firm must survive.	September 12, 2001
Dunne holds meetings with employees to announce the decision to rebuild the firm.	September 13, 2001
Official communication to the public of remaining in business.	September 17, 2001
The firm gets a makeshift office and IT capability.	September 17, 2001
Thirteen new employees hired, new permanent office announced.	October 2, 2001
Recover profitability.	November, 2001
Nine deals on the books before September 11 completed.	November 30, 2001
Firm relocates to permanent new offices.	January, 2002
New hires.	Support core areas by January 2002
Firm resumes market	January 22, 2002
Profitability recovers as previous to 9/11.	May, 2002
Provide benefits to the families of the deceased.	Permanently.

Freeman et al. (2003) describe the process of recovering after 9/11 as a mechanism of resilience led by Moral Purpose, in terms of identifying a set of values beyond the limits of the organization, values that honored their dead colleagues and their rejection of terrorism. Moral Purpose is their source and key to resilience, informing the context of a complex mechanism of support, leadership, and decision-making to reorganize both economic and human resources.

The history of the company reveals an organization where relationships and friendships matter. Sandler O'Neill was founded in 1988 by six partners, three of whom had been friends since childhood, and another who was their mentor. The firm grew by friendship networks, always appealing to the values of merit and loyalty. The work style was based on teamwork and self-management. For example, meetings with clients included five people from different disciplines of the firm to show them what the firm as a whole could do for its clients. Besides holding hierarchical positions, they shared focus

on doing the "dirty work." They combined very efficiently the feeling of a family and a culture based on merit (Freeman, Hirschhorn, & Maltz, 2003). Sandler O'Neill's culture built social capital that was the seed from which resilience grew. Loyalty and family feelings connected their support network, and the chain grew due to trust, flexibility, and self-management, seeds that were already sown over thirteen years before the World Trade Center attack (Freeman, Hirschhorn, & Maltz, 2003).

The process of recovering was a difficult time full of hard work and contradictory feelings that everyone experienced at Sandler O'Neill. There is a long sequence of devastating pain co-existing with a strong determination to move forward. The complexity of post-attack events opened new opportunities for self-development, as well as organizational, business, and infrastructure change. The sequence of tasks for re-building the company demanded the best from its workers and volunteers and the best from the combination of pain and energy (Freeman, Hirschhorn, & Maltz, 2003). In other words, people were able to overcome uncertainty because of the oxymoronic combination of pain and purpose (Cyrulnik, 2011). The idea of containment of grief is a process of understanding your circumstances and being aware of your pain, but it is also the tool to make sense of it and find your purpose. Therefore, adverse circumstances should not be enough to deny people their freedom to use their thoughts, and discover a flexible and creative way to behave and overcome the situation.

Leadership was key, a role model for the process of resilience. The figure of Jimmy Dunne, one of the surviving members of the management committee, was the embodiment of workers' feelings, and the support that people needed to have from the firm. He was able to make decisions promptly, communicate and empathize with their

teams, manage their network, communicate with the press, and motivate people. In spite of his deep emotional pain, he was able to find the purpose to recover --himself, the workers and the company. His major strength was his ability to understand what people were suffering, to change his traditional role in the company from that of a "hard man" to the one who integrated the roles of his dead partners. He showed flexibility -- an open attitude to convoking others and promoting ideas -- and he made decisions based on purpose and trust (Freeman, Hirschhorn, & Maltz, 2003). To understand what his thoughts are about leadership in his firm, I watched an interview wherein he explains what skills Sandler O'Neill searches for in its new workers. Sandler O'Neill, in his words, looks for people with hunger, humility, and tenacity, people who accept mistakes but don't defend mistakes, and people who are able to spend time knowing other people, especially their clients (Skiddy von Stade, 2013). Even though the company changed after the 9/11 tragedy, I can see that its essence is the same.

Currently Sandler O'Neill describes itself as a company that has overcome tremendous challenges. It recognizes the big loss of its partners and employees, but it also recognizes the high contribution from those who survived and brought their experience and dedicated service to the task of rebuilding (Sandler O'Neill & Partners, 2014). In other words, it recognized the value and opportunity of the crisis.

Analysis

I will revisit the key concepts from my literature review related to the facts set forth above in the Sandler O'Neill case in order to answer my research questions: 1) Why is it important to develop organizational resilience in our currently global civilization? 2)

If organizations were able to transfer individual resilience to an organizational level, how would they do so?

Sandler O'Neill is a full-service investment banking firm and broker-dealer focused on the financial services sector. It operates in an industry whose essence is to manage uncertainty (Sutcliffe & Weick, 2007) and it may be called a High Reliability Organization (HRO) because it has developed ways of acting and a style of learning that enables it to manage the unexpected better than other organizations.

Bhamra et al. defined resilience as a multifaceted concept, because it is an attitude, a mechanism, and an outcome (2012). Resilience in Sandler O'Neill was an attitude in their leaders, stakeholders, and volunteers, who were moved by their strong commitment to rebuild the company and go on with business as soon as possible. Resilience was also a mechanism for SOP to deal with a situation that nobody could have anticipated. In that context, decisions were based on the idea of recovering quickly no matter the previous processes instead of resisting the ideas of change and adaptability. Resilience was also an outcome because Sandler O'Neill was able to cope with all its internal needs, while understanding that being in business was the key to achieving its main purpose: They wanted to overcome terrorism, and they wanted to support their colleagues' families. Being resilient was the result of their actions and decisions made. As literature suggests (Bhamra, Dani, & Burnard, 2012), (Sutcliffe & Weick, 2007) the concept of resilience is a connection between context and the complexity of systems. The firm was able to manage several complex systems such as emotional containment, technical processes, physical systems, client networks, and communication systems amid a devastating context of death, suffering, and fear.

If we apply to SOP the results of studies of individual resilience (Cyrulnik [2011]; Patakos [2010]), or the individual experiences from Aimee Mullis (2010) and Robert Schimmel (2008), Sandler O'Neill exhibits the three elements of the resilience mechanism: 1) resilience as a process, 2) resilience rooted in purpose, and 3) resilience rooted in hope. It is a process because it develops through the experiences related to the World Trade Center attack and the years after it. It is rooted in purpose because this is what Jimmy Dunne exemplified when he made the decision to continue in business and showed the surviving SOP people why they should do it. His attitude and commitment convinced their employees and volunteers to reframe their context into a positive meaning for the future (Freeman, Hirschhorn, & Maltz, 2003). It is rooted in hope because there was a true belief that continuing to work hard, focusing on priorities for business, and helping the families of their deceased colleagues was the road to seeing the light at the end of the tunnel.

The traumatic event of the attack showed, as Cyrulnik (2011) suggests, that people were affected in very different ways. During the period of rebuilding the company, SOP was flexible enough to let people take as much time as they needed to stay away from the office or in the office. This flexibility embraced diversity, so people helped others, worked on their own recovery process, led a new team, or undertook any action that was consistent with their personal ways of approaching and living the crisis. Even for people who decided to leave the company, there was a process of letting them go and respecting their feelings of not being able to work in an environment that just reminded them of the loss of friends who were like family.

Ambivalence was a permanent feeling in the process of recovering. Any action such as closing the pending deals, contacting clients, hiring new people, or restoring the technological systems was done with a feeling of both pain and happiness. For example, a new worker said, "I am glad to be here but not happy for the reason why" (Freeman, Hirschhorn, & Maltz, 2003, p. 21). Because of the natural isolation of trauma, when organizations most need help, they are the least capable of seeking and using it (Freeman, Hirschhorn, & Maltz, 2003). But if Sandler O'Neill faced isolation, a natural emotion in times of crisis, it was experienced in a complex system of internal and external support, based on strong relationships among workers, volunteers, and relatives who were willing to help each other and share their own pain in order to overcome the crisis. As a consequence, the organizational system was open to more ideas, support, and advisors that increased the chance of recovering fast.

Sandler O'Neill's appeal to its network of friends, clients, experts, and families, was the mechanism for the first stage of resilience: "Bouncing back" (Cyrulnik, 2011). The source of empowerment to begin the second stage, "Knitting," was its relationships with other entities outside the networking such as other companies, the social media and the whole political and economic chaos of the moment. The process of recovering was built through a painful metamorphosis. Every milestone after the attack, such as communicating the decision of continuing in business, completing the deals pending before 9/11, and reopening its offices, was part of the daily, myriad little battles to rebuild life and work.

The experience of recovering was based on conquering new challenges and managing their emotions, as well as celebrating new victories. Dunne and his team were

aware of people's feelings, pain, and effort to keep the firm in business. They held meetings to support their workers, they hired and trained new workers, and they created a virtuous cycle of positive reinforcement and a sense of humor that was part of the repairing process (60 minutes, 2002).

The idea of how people reframe adversity (Mullins, 2010) was also a component of Sandler O'Neill's process of recovery. Jimmy Dunne was the first person to declare how the company would deal with adversity. He transmitted his ideas and convinced workers of the value of moving forward and staying in business. Even though he was afraid himself (60 minutes, 2002), he declared their purpose and he moved the people from their own panic to the idea of being capable. Dunne, as Frankl (2006), was able to transform the meaning of his life and help others find the meaning of theirs.

Dunne's leadership is a very good example of positive visualization and the power of emotional control (Frankl, 2006). Positive visualization enabled Sandler O'Neill's managers, instead of being paralyzed by pain, to use their love for friends as the energy to mobilize their actions. Because they loved their friends, and they missed them at work and in their lives, they visualized a better future against terrorism as a consequence of the effort that they put in to rebuild the company. At the same time, they used emotional control (Frankl, 2006) to face pain and focus on daily tasks. We can observe how emotional control is an individual ability transferred to organizations, just as Patakos applied Frankl's principles at work. Dunne's leadership shows the first basic elements of Logotherapy, as defined by Frankl (people can become a product of their decisions not their conditions), because he was able to overcome the context of adversity

to make decisions (continue operations, find the way to recover), which gave purpose to him, the workers and the company.

As I mentioned before, Jimmy Dunne led the process of dealing with adversity at SOP in a virtuous cycle made possible only by the enormous support that it inspired. For example, SOP had emotional experts immediately convene after the attack. Support (Schimmel, 2008) was rooted in the values of friendship, trust, and loyalty that the firm had encouraged and developed before the attack, which in the crisis became a key strength that allowed others to help them and further allowed them to be open to more ideas and creative solutions for a problem that nobody knew how to solve.

The figure of Dunne as a leader embodies a true north (George, True North, 2007) because he understood his position in the company and how he should transform himself to become the leader that his organization needed during the crisis. Dunne was able to change his position and his communication style to create a sense of community and empathize with his employees. In my opinion, his attitude of looking at himself with a critical eye was the key factor in finding purpose and leading the journey of rebuilding the company. He was 45 years old; he could have just organized the insurance and legal issues to close the doors and start another business on his own, but he chose to stay on board and challenge adversity.

The journey of finding meaning at work (Patakos, 2010), contains four specific techniques, all of them put in practice by Dunne and his team: 1) Stop complaining. In SOP's case there is no register of complaints because the public speech was always to keep moving and focus on their purpose. 2) Exercise freedom. I observe that Dunne, as a figure of authority and power, with his convictions, was a great example of self-

awareness and positive attitude towards his purpose, which gave him freedom to make decisions and create networking support in times of adversity. 3) De-reflection. In setting a purpose, there was no doubt about their priorities, as Dunne demonstrated when he said, "I am in pain, but focused" (60 minutes, 2002). He and his team just chose to put their attention onto things that mattered to them and the future they were hoping for. The exercise of de-reflecting leads people to build constructive solutions. The company experienced a quick change of old patterns of behavior, yet still rooted in strong values. 4) Self-detachment. There was a strong conviction that going back to business was the only way to overcome the crisis. But to do that, SOP was committed to look at itself and take a different perspective on the crisis. Talking about pain was part of their new work style, suffering was included in their daily life, and missing their friends was part of their conversations. SOP opened the door to the emotional situation, but at the same time it kept focused on small celebrations and positive feedback in every new step that helped them move their business forward. For example, the difficult process of hiring was never looked at as replacing anybody; they were always conscious that their partners were gone, and the new person would never replace them. They were just looking for someone to work with in a new team.

In this case I recognize in Dunne's leadership the transition figure that Patakos (2010) suggests, since he broke his old pattern of behavior, becoming involved with the people and decisions in a very different way from before. It was a big breaking point in SOP history, but it is also clear that his leadership in isolation would not have been enough to transform the chaotic experience into a positive result as it did.

In terms of risk management and its influences in the process of recovering from adversity, I think SOP was a well-organized company in controlling its business. I have concluded that its people were not risk-averse, but had a sense of control that enabled them to do business in an uncertain industry. I notice this ability because they were smart enough to make decisions on time and with a clear intention to achieve their purpose, although the magnitude and nature of the World Trade Center attack was absolutely outside of anyone's imagination. In this context, the ability to deal with risk was helpful in learning how to find, organize, and recover information. The risk after the attack clearly threatened the company's future, and traditional logic indicated that the only option was to shut down. In my opinion, what makes this case a great example of resilience is that SOP not only was focused on its purpose, but also was capable of understanding that any resistance, isolation, or traditional behavior would not be successful in this unexpected context, so they challenged tradition and their own behaviors to embrace adversity and manage what they had left.

SOP includes its 9/11 experience in its official history, and in an interview a year ago Dunne mentioned the attack as part of his hard experiences (Skiddy von Stade), so I imagine that they still have a strong memory of what this tragedy meant to the company. I imagine that because they are doing well in business and they might have incorporated this experience into their culture, but I don't have enough information to know how well prepared SOP is to manage the unexpected and successfully overcome uncertainty in the future.

Mitroff et al. (1996) suggest that the key factor in managing a crisis is to be prepared for it. SOP wasn't prepared at all, at least not in an explicit way, but they did

well and they succeeded. SOP's example is not a reason to discard Mitroff's suggestion. On the contrary, it shows that what SOP did to overcome the crisis was to embrace a well-known pattern of actions and decisions that let it manage the crisis. In my opinion the SOP case and Mitroff's suggestions are the right combination of behavior and theory to let the resilience mechanism work, not only because of the benefits for the firm but also because of the workers' satisfaction. The facts are evidence of this combination of theory and behaviors. For example, the four main factors to manage a crisis (Mitroff et al. 1996, p. 73-85), were all present right after the attack:

1) Type of crisis. Even though it was hard to believe, it was clear they were facing an unprecedented, large-scale terrorist attack.
2) Phases. The process of recovering dealt with different aspects and processes to contain damages, restore internal information, and learn to rebuild the company together. They were able to define priorities, milestones and small goals to achieve step by step.
3) Systems. The company was able to make a robust interconnected web of technology, people and organizational communication that led it to reorganize its strengths, identify its limitations and create improved systems of communication, of managing technology, of support, of finance, etc.
4) Stakeholders. The action plan found support in individuals from the organization, volunteers, and groups of clients, who played a role in providing emotional support or rebuilding other systems. The presence of psychological counsel right the next day of the attack is a good example of a strong network

and prepared people ready to help. SOP was able to incorporate diversity and expand its stakeholders.

I think SOP is probably better prepared to overcome a future crisis than others in the banking industry. To take the greatest advantage of their experience and enhance current resilience I suggest that they have to identify which processes, decisions, and activities worked well after 9/11 and how they are going to take advantage of their sad, but successful experience. Having generated growth and transformed their culture after 9/11 entails a big risk of becoming overconfident and therefore not reviewing their past as an experience of learning. Some indicators that they are still learning are these: Do they have a crisis management team? How are they currently dealing with risks? What are the risks that they consider themselves capable to manage? How are they preparing new leaders and managers? What are the warning signals? I would suggest that conducting this process of learning after the crisis and establishing the seven essential lessons for surviving disaster (Mitroff, 2005) would be a very useful outcome to document inside SOP and to share with other organizations. I did not have access to information or studies that evaluate the after-crisis process to know how/if SOP has done the iterative learning and how well prepared it is now.

Reviewing the concept of organizational resilience from McCann & Selsy (2012), the SOP case is a good example of a systemic perspective. From the perspective of the interconnected levels of analysis, SOP was able to network intelligently the interaction of individuals, teams, the organization, and the surrounding context, thereby organizing the company toward a clear purpose, using its own strengths and awareness, and orienting its energies toward necessary actions.

As a result of its strategic organization, SOP was able to develop agile and resilient (AR) systems for addressing adversity. For example: a team of psychologists was available *in situ* to hold meetings and individual sessions, and provide emotional support. A second example is the team that compiled and organized all the information about the deceased workers, their families, DNA records, insurance plans, and administrative resolutions. A third example of the organization of the SOP system was the team of volunteers who offered their expertise to support the workers and managers in their process of recouping data, contacting clients, and starting to make decisions accordingly.

The AR system was critical in generating the adaptive capacity that provided the flexibility for SOP to expand its strategies toward its purpose of going back to business and achieving its three main goals: 1) determining the extent of human loss and caring for families of missing colleagues; 2) ensuring the safety and health of all surviving employees; and 3) personally assuring the firm's clients and friends that the firm would continue (Freeman, Hirschhorn, & Maltz, 2003, p. 4).

SOP's case definitely shows that its leaders were able to embrace and resolve the conflicts they were facing. Its organizational structure helped Dunne make fast decisions, and he certainly was aware of what he didn't know. In my opinion, his awareness of his own not knowing was a key element in convening "older" stakeholders and creating a support team based on trust and experiences.

The SOP experience highlights at least two of the three main components of resilience: the ability to absorb strain and preserve functionality and the ability to recover or bounce back. The third component of resilience is the ability to learn and grow from

previous episodes of resilient actions, and I infer they are working in and on this process. For example, SOP declared in their web site that it "had benefited from the strength of those who survived, including Senior Managing Principals Jimmy Dunne and Jon Doyle, Managing Principals May Della Pietra and Fred Price" (Sandler O'Neill & Partners, 2014). SOP now employs 250 people working in a growth phase, adding clients and services within financial services. An indicator of learning and growth is the fact that SOP has never lost its focus on community banks and thrifts. SOP's value has grown along with its clients, and it is now a leading expert in advising regional, national, and international companies. Those three components led to the adjustment and changes that SOP experienced in order to put the mechanism of resilience into action and at the same time become a different entity (60 minutes, 2002).

SOP's case of crisis, loss, and resilience motivates me to develop an additional perspective related to the analysis already done by Freeman et al. I have started my personal in-depth examination of the case, searching for more clues about the process of organizational recovery after a crisis. After 2 years in the Organizational Dynamics program, finishing my courses, writing my Capstone, and integrating my learning process I am able to understand how Sandler O'Neill recovered from the crisis and how it was able to do even better than ever. My expectation is that after my own research on the case, I will be able to understand other organizations facing crisis and facilitate strategies for performing as resilient and successful organizations before and after a potential crisis.

Promoting the mechanism of resilience after crises (policy, politics, environment, natural disasters, community, etc.) is becoming a need for organizations, for cities and countries (Kapucu, Hawkins, & Rivera, 2013). To analyze the mechanism of resilience

in a large-scale context, the next chapter will review the “Oregon Resilience Plan”, designed by the State of Oregon to manage the unexpected challenges of an earthquake and tsunami.

CHAPTER 4

OREGON, A LARGE SCALE RESILIENCE PLAN

Things fall apart
in our houses,
as if jarred by the him
of invisible ravagers:
not your hand, or mine,
or the girls
with the adamant fingernails
and the stride of the planets:
There is nothing to point to, no one
to blame – not the wind
or the tawny meridian
or terrestrial darkness. . . [6]
(Neruda, 1974)

Picture [7]

One of the most important opportunities provided by the Organizational Dynamics program has been the invaluable chance to meet people and to discuss different topics with a variety of experienced professionals. I had several conversations in the process of finding a topic for my capstone and subsequently trying to build a framework integrating my own interests, my country's needs, and the learning from my Organizational Dynamics classes. In this context, when one of my fellows[8] heard me talking about resilience and its applicability to organizations and countries, he suggested that I read the Oregon Resilience Plan (ORP).

The ORP is a proactive initiative mandated by the State of Oregon's Legislative Assembly, "to identify steps needed to eliminate the gap separating current performance from resilient performance, and to initiate that work through capital investment, new

[6] Read the complete poem at Appendix C Things Breaking
[7] Personal picture taken from "La Sebastiana", Pablo Neruda's House in Valparaiso, Chile, 2010.
[8] Thank you, Matt Keating, ODYNM alumnus, class 2014.

incentives, and policy changes so that the inevitable natural disasters of a Cascadia earthquake and tsunami will not deliver a catastrophic blow to Oregon's economy and communities" (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013)

In my opinion, ORP exemplifies how to devise the mechanism of resilience in a complex context. It is a long-term plan to manage risk, convene key stakeholders, identify leaders, define roles, and anticipate how to recover from an uncertain event. It is a plan that promotes flexible systems and behaviors that are anchored in the idea of creating complex and synergic information systems in the process of recovering after a natural disaster (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013). It is, in fact, a plan that exemplifies the use of many of the theoretical concepts discussed in the literature review, notably those of Frankl, Cyrulnik, Sutcliffe & Vogus, Sutcliffe & Weick, George, and Patakos.

Before presenting the analysis of the ORP, some background contextual information is in order.

Oregon State and the Cascadia Subduction Zone

One of the 10 biggest states in the USA, Oregon is located on the northwestern Pacific coast, bordering the states of Washington on the north, Idaho on the east, and Nevada and California on the south. The total boundary length of Oregon is 1,444 mi (2,324 km), including a general coastline of 296 mi (476 km) (Inc. A. , 2014).

The Cascade Range, extending north to south, divides Oregon into distinct eastern and western regions, each of which contains a great variety of landforms. At the State's western edge, the Coast Range, a relatively low mountain system, rises from the beaches,

bays, and rugged headlands of the Pacific coast. Between the Coast and the Cascade Range lie fertile valleys, the largest being the Willamette Valley (Inc. A. , 2014).

The Cascadia subduction zone is a geological fault that runs from northern California to Vancouver Island. Located less than 100 miles off the coast of Oregon, it is the result of the Juan Fuca plate sliding under the North American plate, and it is capable of generating magnitude 9 earthquakes and tsunamis. Oregon has infrequent large earthquakes. As with any natural process, the average time between events is not exactly known, and in this case events occur between 300 to 1,000 years apart (Inc. A. , 2014).

The Cascadia fault runs along the entire coast, and it might become the epicenter of earthquakes that last as long as four minutes, followed by very dangerous tsunamis. An earthquake of this magnitude is unprecedented in this area, but it is considered to be the most threatening geologic hazard in Oregon, and its effects could measure as Table 7 shows

Table 7: Expected Losses from Magnitude 8. 5 Cascadia Earthquake

Damage	Data
Casualties	Almost 8,000
Buildings destroyed	30,000
Economic damage	Over $12 billion

Due to the indisputable information related to Oregon's seismic activity, with geological faults creating earthquake hazards in most of the State including its most populated counties, in April 2011 the Oregon House of Representatives recognized that policies at the time were insufficient to protect citizens and businesses in Oregon from the effects of a mega-thrust earthquake or to ensure a smooth economic recovery after it. It created the Oregon Seismic Safety Policy Advisory Commission (OSSPAC), whose analysis will guide the State in the development and implementation of resilience policies

and programs. OSSPAC, in turn, created the ORP, whose key elements constitute my focus of analysis in the next section of this chapter.

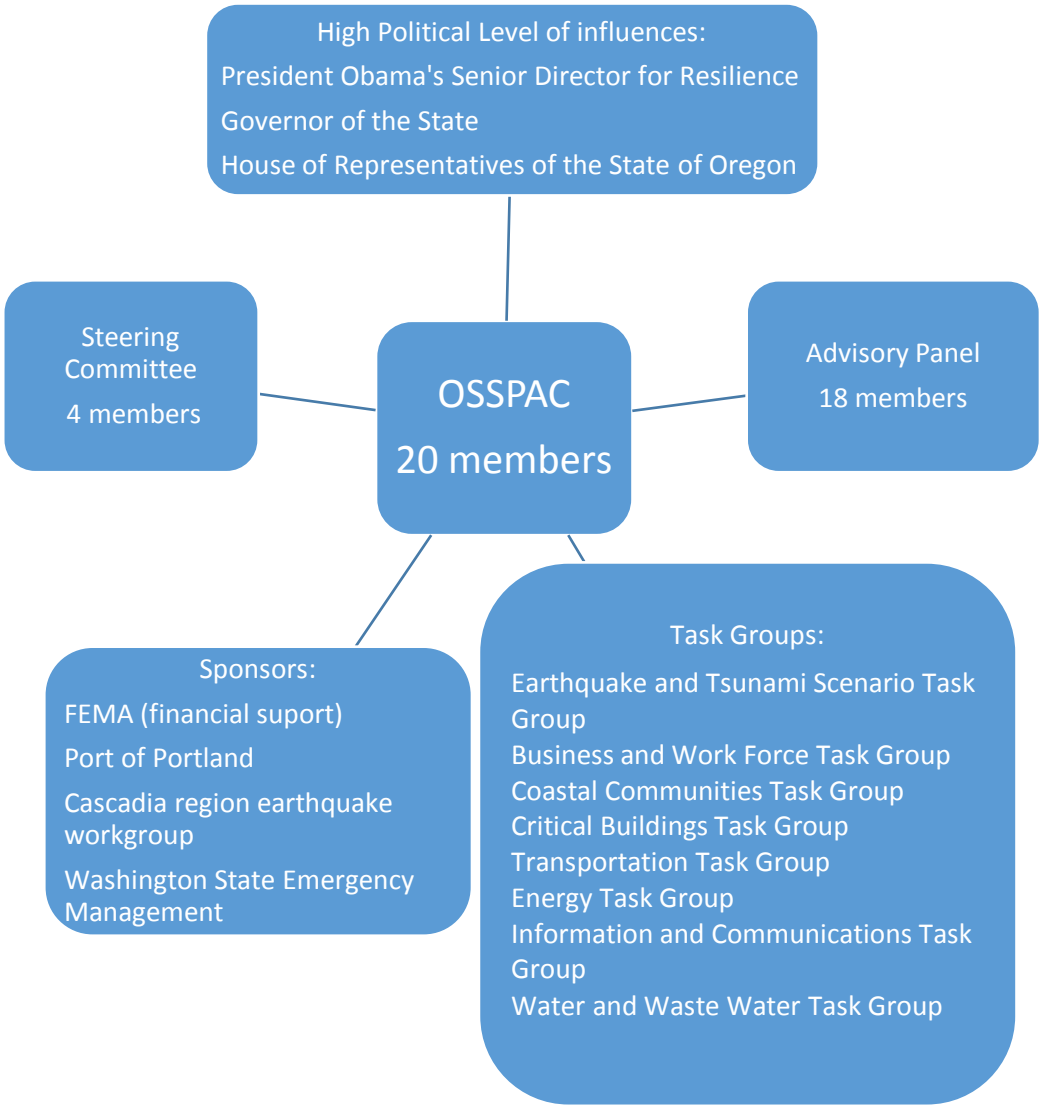
Analysis

The ORP understands resilience to be the result of proactive risk reduction measures and pre-disaster planning, whereby Oregon's communities will recover more quickly and with less continuing vulnerability following a Cascadia subduction zone earthquake and tsunami (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013). This understanding is similar to the definition of resilience that I am using for this capstone, "the maintenance of positive adjustment under challenging conditions" (Suctilffe & Vogus, 2003, p. 95). As I mentioned in Chapter 2, the two main elements of this definition are an entity (the behavior of the state of Oregon), and the judgment about this entity facing an extremely challenging context (a high magnitude earthquake and tsunami). In my opinion, the ORP demonstrates a real effort to transform academic knowledge, i.e. geological and engineering studies, crisis management, architecture, etc., into practice over the next 50 years.

As Bhamra et al. (2012) established, resilience has become multidisciplinary and multifaceted and must be understood as an attitude, a mechanism, or an outcome. The ORP is multidisciplinary because it was developed through the contribution and support of people from different backgrounds, industries, and power positions in the community (see Figure 4: Multidisciplinary Work Team). It is multifaceted because it can be understood as an attitude, a mechanism, and an outcome. The resilient *attitude* might be instilled in all the stakeholders-sponsors and, through them, in the community. As a *mechanism*, the ORP defines the main interconnected variables that might need to be

managed to interact and work coordinatedly. The ORP combines Cyrulnik's belief that survival is possible, just as it illustrates the oxymoron of both recognizing the potential suffering and using their own energy to overcome adversity. After two years (2011-2013) of work, the ORP was also an *outcome*, in terms of generating a guide of steps supported by deep knowledge, thereby establishing the priorities to manage a natural disaster in Oregon.

Figure 4: Multidisciplinary Work Team



If we consider the State of Oregon as the unit of analysis, I observe that the ORP is a good example of people using their resilience skills in favor of a common objective, which as Cyrulnik (2011) described, is a process rooted in purpose and hope. The plan establishes the mechanism of resilience as a *process* (different stages to implement in a period of time); its resilience is grounded in or draws energy from the *purpose* of preventing the inevitable disaster of a Cascadia earthquake and tsunami from causing an unprecedented catastrophe for the state of Oregon; and its resilience is rooted in the *hope* of being able to learn, to disseminate the learning through generations, and to be able to deal effectively with a big natural disaster.

In my opinion, a great achievement on behalf of the State was to persuade different entities of power and knowledge to value the geological evidence and transform long-term evidence from the past into proactive behavior for the future. This achievement also confirms Cyrulnik's idea (2011) of resilience as a learning mechanism and as an ongoing process to establish after a reasonable time of restoration. In the ORP, experience is complemented with knowledge and technology, creating a learning mechanism and process to use in facing environmental challenge in the future.

Like Frankl, the ORP brings a message of courageous decision-making to deal with the aftermath of the inevitable challenge of, in this case, natural disaster. Oregon is showing that a complex system is able to be prepared for adversity and be flexible enough to promote changes in advance (Mullins, 2010). In my opinion, the main mechanism of defense against hopelessness and passivity in the ORP is the ability to envision a positive future (Frankl, 2006) and to believe in the expertise of each member

of the community. Thus, the traditional expectation of recovering from a natural disaster has been moved beyond hope alone to a proactive plan.

The ORP's first step of analysis and action focuses on Oregon's physical infrastructure, with a special emphasis on business and community continuity following a Cascadia earthquake and tsunami (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013). Despite the strengths of the Plan, the ORP declares the need to expand the planning effort in the future to include: 1) local community planning, 2) human resilience, 3) civic infrastructure, and 4) joint regional planning with the State of Washington (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013).

The Oregon Resilience Plan is fundamentally about people, so the underlying philosophy is that government infrastructure investment will certainly lay a solid foundation to make timely recovery by and for the population possible. However, it is well known from natural disasters around the world that civic infrastructure is especially critical during the first weeks after a disaster, before organized government assistance can be delivered. ORP understands government assistance as the preparedness of every public agency, academia, business and professional community, and worker who will play a role in implementing the emergency policies. On the other hand ORP refers to civic infrastructure as community-based, non-governmental, and faith-based organizations, which should be the first teams to provide assistance to those in need after a natural disaster. That is why the ORP suggests that civic infrastructure itself -- the people -- needs to conduct seismic vulnerability assessments and develop mitigation plans to ensure that expected services will be delivered (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013).

Regarding human resilience, the ORP recognizes the importance of public health, so that citizens become physically and mentally ready to withstand disasters of any form, which is consistent with the idea of being aware of and using the power of emotional control (Frankl, 2006). By addressing the high relevance of emotional control, the people will be better prepared for the process of reconstruction, which in itself will mitigate the painful process of metamorphosis after the crisis. In Frankl's (2006) metaphor, Oregon will face the potential disaster with a light already on at the end of the tunnel. The ORP suggests the possibility of an outcome very different from my experience in Chile, where most of the recovery process is usually based on a great deal of solidarity and improvised plans of actions after the fact.

The idea of joint regional planning with Washington State is a good example of the complexity of the process, and how it might affect areas beyond the unit of analysis. At the same time, it shows the high importance of support (Schimmel, 2008) that is needed in the process of recovering.

The ORP is an application, on a large scale, of the previously reviewed principles of having clear purpose (Frankl, 2006) and establishing a true North (George, Becoming an Authentic Global Leader, 2014). For example, the ORP establishes the need to "identify steps needed to eliminate the gap separating current performance from resilient performance, and to initiate that work through capital investment, new incentives, and policy changes so that the inevitable natural disaster of a Cascadia earthquake and tsunami will not deliver a catastrophic blow to Oregon's economy and communities" (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013, p. XIV). The ORP is also a well-done attempt to change from "I" to "We," one of the main

characteristics of leadership according to "True North" (George, True North, 2007), which means that a successful resilience plan is based on a positive interaction between different stakeholders involved in the process of building the plan, and not an opportunity for individual battles (Figure 4: Multidisciplinary Work Team). It is the evidence of a continuous process of learning, because the OSSPAC took information not only from the area but also from other countries, such as Chile and Japan, and other cities within the USA (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013). Another example of continuous learning is that the ORP was delivered as a first step on the long journey to develop a program. The ORP supplies suggestions to every work team, defines procedures to track those suggestions, and also defines new topics that might be included in the iterative process of implementing the plan.

The ORP is also an implementation of the three basic components of logo-therapy (Patakos, 2010):

1) People can become a product of their decisions, not their conditions, which is exactly the spirit of the plan. An interesting element in this regard is that the OSSPAC is supported by those with high-level political influences, and also by high-level expert members. This combination creates a powerful team that has the influences and power to make decisions and distribute resources.

2) Each person has a meaningful role. In the Oregon Resilience Plan all basic resources and economic representatives are part of at least one work team in a way that assures not only broad participation but also broad perspectives of analysis.

3) People don't need to suffer to learn. What Oregon is doing is learning from other countries' experience of suffering in addition to its own past experience.

The ORP is also a good attempt to find meaning at work (Patakos, 2010) because it transforms technical evidence into information to be managed by the people who will be affected by the earthquake and its consequences. Its immediate effect is that people can exercise the freedom to choose their attitude and find their most valuable role in a proactive way. Patakos' technique of de-reflection (shifting focus of attention onto things that matter for you) occurred once the State of Oregon focused its attention on priorities that matter to them, their safety, and their own resilience process. Patakos' principle of self-detachment (taking a positive perspective and maintaining a sense of humor) has not been addressed in this plan, but I assume it could be an attitude to learn as part of the education program and resilience plan related to public psychological health. Even though I judge Patako's approach (2010) as focused on the individual, the ORP is a good example of its principles applied to a large-scale context.

In terms of risk management, ORP is a proactive example of how to manage the uncertain natural environment using a methodology to build certainty. Oregon chose to make anticipatory decisions, adhere to the main goal of reducing risks, and affect in a positive way the chances of recovering. Using the concepts of Hillson (2009) -- such as risk management as a discipline to enable organizations to make decisions, the imperative to assess the risks, and the need to determine adequate responses -- OSSPAC was able to define the risks that the community is able to manage, by suggesting areas where accurate research, estimates of damage and loss, and retrofitting of existing structures is needed.

Another focus of risk management is related to the idea of having as few interruptions of normal economic activity as possible. First, OSSPAC calculated the

probable costs associated and what conditions the community must achieve in order not to interrupt their economic activity. The ideal economic conditions are several:

1) Raw materials (food, water, energy, information, and other commodities) and imported goods and services must be available and able to reach households and firms;

2) Households must have their basic needs satisfied, and they must have the resources (such as food and water) to consume;

3) Firms must be able to combine raw materials, workers, and equipment to transform the available inputs into finished products; and

4) Finished products must be available to customers, inside and outside the region.

Once they defined what the root conditions for their economy are, they identified each economic area and broke down the key infrastructure that connects them. For example, a severe natural disaster could directly damage raw materials or inventories of imported goods; damage the roads, bridges, pipes, or utility lines used to transport such goods to households and firms; damage houses and households and limit both their ability to provide workers to firms and their ability to consume goods and services produced by local firms; damage the buildings and equipment owned by firms, making production impossible; and damage the infrastructure used to transport finished products to customers (households or other firms) (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013). The next step was to suggest an action plan to manage directly the weaknesses that they found:

> 1) Assess hazards that could impact business;
> 2) Develop business continuity/continuity of operations plans;
> 3) Partner with the private sector to assess public/private building stock pre-event and help with post-event recovery; and
> 4) Encourage all Emergency Operation Centers to pursue public/private partnerships to enhance communication and coordination with the private sector

> after a major seismic event (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013, pp. 36-38).

All the specific steps in the ORP are described in such a way that leaders, teams, and stakeholders are able to distinguish their gaps in ability to control risks, their gaps in ability to mitigate damage, and their needs to adapt their systems in case of an unexpected consequence of the crisis (Kaplan & Mikes, 2012).

The effort of creating this ORP is evidence of a mindful infrastructure, which Weick & Sutclife described as true of High Reliability Organizations (2007). Those organizations need to assess the environment continuously, know their weaknesses, and focus on their strengths, as Oregon decided to do. But the case of Oregon is a challenge to the idea that only some organizations develop the ability to anticipate and the ability to contain the unexpected. On the contrary, the ORP is an example that the ability to envision the future and act accordingly are more significant factors in resilience than the circumstances of the organization, and therefore it is not necessarily an exclusive skill of some organizations.

Following Mitroff (1996), the ORP defined the aftermath of the event (a *post audit*), and assessed how well prepared are the infrastructure, the flow of commercial activities, and transportation (*their systems*). One of the systems that they addressed was a resilient system of communication, which should be 1) decentralized; 2) meshed or integrated; 3) built to withstand the potential hazard, but without an expectation of 100-percent survivability; 4) capable of recovering (within 2-4 weeks); 5) able to handle a surge in demand through system performance levels or implementation of controls; and 6) upgraded by means of continuous hardening of vulnerable components within the system (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013).

The ORP also defines the basic characteristics of the event, such as the *type* of crisis (earthquake and tsunami), what form it will take (magnitude 9), how it will happen (result of the Juan Fuca plate sliding under the North American plate) (Wong & Clark, 1999, p. 3), and when (establishing a range within the next 50 years) (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013). The ORP has the main elements of a good crisis management plan. There is a clear proactive action (*phases*), a *crisis management team*, identification of *stakeholders* (Figure 4: Multidisciplinary Work Team), and specific warnings based on continuous work within OSSPAC.

The ORP supports Mitroff's (1996) idea of having a multidisciplinary team in charge of the planning process and of the process of recovering from a crisis. The ORP represents a better chance for Oregon to conduct the actions that are needed in a context of high pressure and emotional risks, and it is also a good example of anticipating the process of decision-making. Unfortunately, the plan's efficacy will be known only after the crisis happens, which represents a big challenge in terms of being able to create learning and move the knowledge experience forward.

The Oregon Commission, in my opinion, has demonstrated that the idea of organizational resilience is being potentially able to manage the changes that nature may bring to Oregon in the 21st century. The Oregon Resilience Plan successfully addresses the complexity of the broader challenge of resiliency because not only is it being heeded with regard to disaster preparedness, but also it is being recognized in many areas that require foresight and the coordination of public and private sector efforts.

The OSSPAC encourages a multilevel analysis through a broader public conversation that will bring other state agencies, businesses, and interest groups to the

table for an exploration of resilience concerning natural hazards, land use, climate change, and other topics characterized by systems interdependencies and long-range horizons. Their flexibility is also declared in their attitude of learning from one another, and building together a new way of thinking (Oregon Seismic Safety Policy Advisory Commission [OSSPAC], 2013).

The OSSPAC is a good example of an Agile and Resilient organization (Mc Cann & Selsky, 2012) because it has a multilevel system of analysis and each level of analysis has been purposeful (finding ways to mitigate damage to Oregon); aware (identifying their current state of development and its gaps); action-oriented (defining deadlines and specific actions to take); resourceful (identifying weaknesses and new ways of solutions); and intelligently networked (balancing power, knowledge and synergy). Because the plan follows McCann & Selsky (2012), the ORP might be able to provide flexibility to the system in order to expand their repertory of adaptive strategies and achieve an appropriate performance. The Oregon Resilience Plan is a credible initiative to develop the ability to absorb strain and preserve functionality, the ability to recover or bounce back, and the ability to learn and grow after an earthquake and tsunami.

Following my analysis of the mechanism of resilience in an organization (Sandler O'Neill, chapter 3) and the mechanism of resilience in a large-scale context (State of Oregon, chapter 4), the next chapter will provide my findings, recommendations, and conclusions regarding the idea of organizational resilience and the answers to my capstone's questions.

CHAPTER 5

ORGANIZATIONAL RESILIENCE: A PERSONAL REFLECTION

The rich center of the rose
Is the richness of your heart.
Open it as the rose does:
Closed, it will doom you.

Open it in tremendous love,
Open it in song, in art.
Don't protect the rose:

(Mistral, 2003).

In the process of researching this capstone I discovered how rich and broad the concept of resilience can be, and how different from my old personal bias of resilience as an individual characteristic of personality. Resilience is a complex concept, so its definition is not simple. As I showed in the previous chapters, three simultaneous characteristics define resilience as a complex concept: an attitude, a mechanism, and an outcome. The unique value of this triad is that it can be observed in different units of analysis, such as individuals, organizations, or communities, to mention a few. The coexistence of multilevel and complex concepts transform the characterization of resilience into a dynamic and versatile construct whose applicability is as broad as its meaning.

Understanding the complexity of this concept was the bridge that led me to the answer of my first question: why is it important to develop organizational resilience in our currently global civilization? Even though resilience has been the subject of research for more than 20 years, I argue that it is becoming more important because of the rapid and challenging environment of global businesses. For instance, note the changes in

technology, lifestyles, and geopolitics (Hamel, 2007); or the turbulent environment with such natural disasters as tsunamis, volcano eruptions, and pandemic diseases; or human-sourced threats like financial crises, economic recessions, terrorist attacks, equipment failure, and human error (Bhamra, Dani, & Burnard, 2012). A highly networked context of changes and/or disasters poses potential and unpredictable threats to the continuity of every organization in every locale in ways large and small.

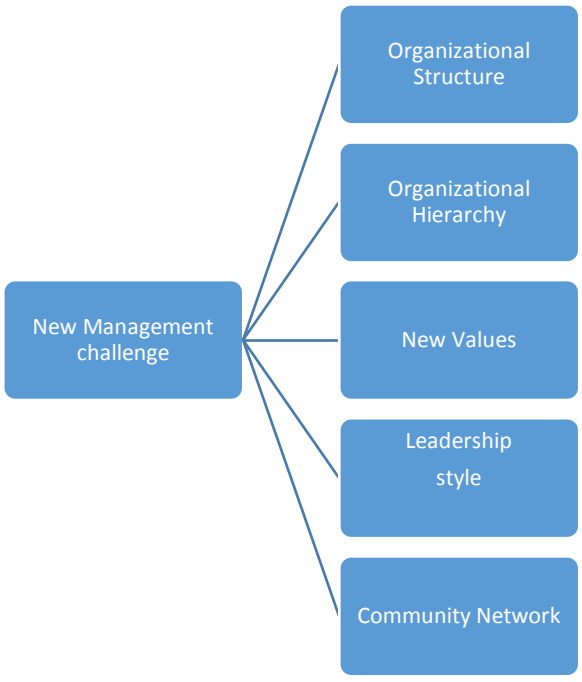
Not being prepared for such a volatile context will result in the organization's demise. As Collins (2011, p. 12) suggests, "the best way to predict the future is to create it," and this is what organizational resilience does: it makes organizations ready for the unpredictable future in order to transform themselves both before and when it arrives. In the same way that extreme experiences like concentration camps, physical disabilities, or cancer have shaped the reality of individuals, the phenomena of the 21st century are shaping the context of teams, organizations and ecosystems.

As Hamel (2007) points out, the process of getting prepared for this new era encourages organizations to create new management principles. The transition from the control-oriented principles of the 20th century to the adaptability-enhancing principles, as any metamorphosis, will be neither easy nor fast, but it is unavoidable and certainly possible. The reason is very simple: organizations can't solve new or chronic problems with fossilized principles alone (Hamel, 2007, p. 150), such as standardization, specialization, hierarchy, alignment, planning, and control. The current context, on the contrary, is basically irregular, wherein irregular people use irregular means to create irregular products. Organizations are moving into a new paradigm where complacency is a threat and a certain dose of disruption is desirable. In that sense, resilience can, and I

believe it must, be treated as a tool to deal with the new 21st global context. As I showed in the previous chapters, Sandler O'Neill's story is a good case from the recent past to exemplify the high importance of developing a reliable culture in order to face complex uncertainty in the organizational context.

My second research question was this: if organizations were able to transfer individual resilience to an organizational level, how would they do so? I conclude that it is perfectly possible to transfer individual resilience to organizations. To describe how this process might be possible, I adhere to Hamel's (2007) call to take management innovation seriously. To accept his challenge I suggest that organizations will need to forge a new management approach that affects several aspects of the organization, as Figure 5 shows:

Figure 5: New Management Change to Develop Organizational Resilience.



The new management approach is a way to transfer key factors from individuals into organizations. The five areas where the new management can take place are *organizational structure,* which involves the creation of the risk management team and the decision-making process; a new *organizational hierarchy* based on building community instead of silos; *new values* based on purpose; a renovated *profile of leadership,* as an entity that promotes creativity and multidisciplinary work teams, which connect with the outside of the organization to build *networking* based on trust and collaboration. Therefore, a new way to do management will enable organizations to reinvent themselves quickly and efficiently develop resilience organizations.

The new structures should be able to implement the discipline of risk management, understand mitigation plans, and make the organizational hierarchy flexible, in order to serve its purpose. A good example is to incorporate and take full advantage of technology, but in a way that respects human interactions as the main source of creativity and sustainability. The ORP is a good case to show this new management, as it is a plan to be used when crisis or disaster hits, and whose effectiveness will only be proved then. It is a bet on a future that lies beyond a set of instructions or any particular people in charge of it. The ORP will work based on the relationships, connections and proactive new management that have been built into the community's culture.

To address the values in the new management paradigm, Hamel (2007) suggests developing purpose, trust and equity, which in my opinion are the essence of reliable organizations. Purpose, because it leads the decision-making process, establishes priorities and keeps focus on the long-term vision. Trust, because it is a challenge to face

with the best dexterities of every team member, with no room or time for bad intentions or hidden agendas. Equity, because it reinforces the idea of a community, promoting transparency and interdependence among the members of the organization. A new leadership standard is needed in an organization based on values because leading crises and promoting resilience requires making rapid and significant decisions, an ability that will be anchored in leaders in advance of any crisis.

The resilience leadership might appeal to our inner strengths and internal energy to envision a better future in a context of crisis. Resilience leaders, as a change vehicle, "must abandon the follow me! I know the way!" approach (Hill, Brandeau, Truelove, & Lineback, 2014, pp. 45-71) and replace it with a different mindset, which creates a sense of community. An example of the successful new manager is, in my opinion, Jimmy Dunne (Sandler O'Neill case) who clearly inspired his colleagues through his resilience attitude (purpose, hope, sense of humor), which was a key factor in building the company's resilience plan.

A resilience leader may be recognized by some key characteristics: creative thinking; ability to establish multidisciplinary work teams; capacity of managing risk; strong self-awareness; visionary habit; ability to communicate and engage teams in the same journey; capability to practice flexibility and focus at the same time, i.e. someone who knows how to manage ambivalence; openness to facilitating other people's development; and finally, leadership based on principles. These are the skills that a global and resilience leader should and must demonstrate and develop [Chatuverdi (2014), George (2014), George (2007), Hill et al. (2014)].

Organizations looking towards long-term sustainability should develop resilience leaders who will, due to their aforementioned traits, in turn capitalize on their colleagues' inherent traits: the ability to establish social interactions and willingness to work very hard for an inclusive systems of diversity. Every management process is susceptible to assessments and re-organizations to promote new attitudes and unconventional perspectives.

These traits will enable employees to exemplify my last argument to support the transference of individual resilience from individuals to organization, which is the individual's ability to network. If humans are able to establish and manage their relationships, they will be better prepared to identify the stakeholders who may provide support to their organization. Resilience is not a job in isolation, as we saw when the leadership of multiple stakeholders working together and coordinating their efforts made the Oregon Resilience Plan possible. Building relationships on a daily basis -- as did the leaders who worked with Jimmy Dunne -- facilitates identifying the sources of help, which are hard to find during the crisis. In that sense, the organization should learn that establishing relationships with purpose, transparency, and a collaborative style will be the seed for good support when they have to face a crisis. A few good questions offer a starting point for consideration: How diverse are the teams promoting diverse interaction in the organization? How do physical locations facilitate cross-discipline collaboration? How are the organizational norms facilitating diversity? Are the organizational systems facilitating social mobility and personal growth? In other words, deep self-assessment and self-awareness are key in the journey of building reliable organizations.

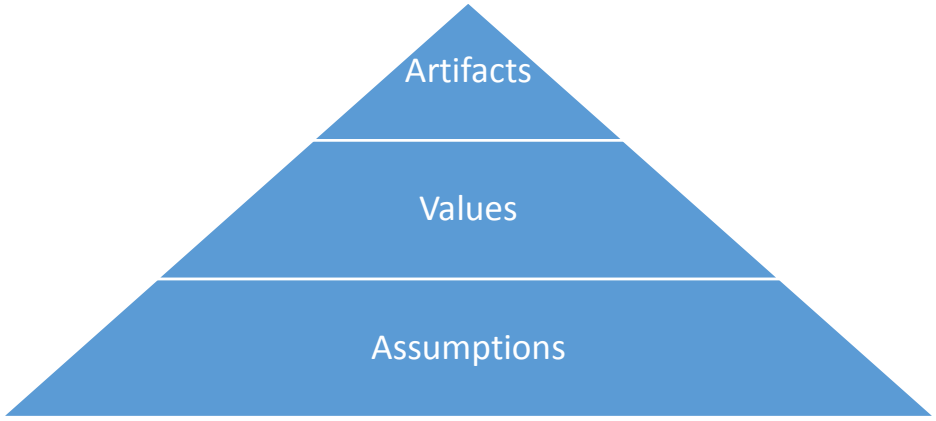
As my research progressed, I learned that even though I found documentation to support my hypothesis that it is possible to transfer individual resilience into organizations, I also recognized that the implication that resilience occurs in just a one direction, from individuals to organizations, is not completely accurate. Because resilience operates in a multilevel system, the main requirement for its successful implementation is permeability within the elements of the system. Permeability is the way that the whole system interacts with the environment, within systems, and contributes to develop creative answers to adversity. Hence, I needed to reframe my questions by adding: is it possible to transfer resilience among different systems within the organizations? The answer again is yes, since this is how a multilevel system is reinforced as levels influence each other. Any change in any part of the system will affect the rest of it. Therefore, a systemic approach to understanding resilience is, in my opinion, the more productive, multi-directional approach to study, create and manage organizational resilience.

If we agree that organizations exist only because they are created, developed, and transformed by people, and if we agree that people have the potential to put into action resilient attitudes, behaviors, and approaches, then we might expect that the basic constitution of an organization has the potential to become resilient. Since reliable organizations are complex by nature, the combination of a group of people with stable membership, a history of shared learning, and a set of shared assumptions is not enough to assure that they are capable of establishing a reliable culture. As we know, people change because of what they care about; therefore, even though organizations can encourage adaptability in their workers, the willingness of individuals to change is what

ultimately creates the expected changes (Hamel, 2007). As it develops, a reliable culture will encourage people to develop individually resilient behaviors, thus creating the cycle of mutual reinforcement. In that sense, practices like developing a risk management and mitigation plan, and courses of action to recover from uncertain events are examples of how an organization captures individual resilient abilities and transfers them to its organizational practices.

Following Schein's model of culture, we can observe a resilience culture in three main levels of analysis, as shown in Figure 6Figure 6 (Schein, 2010).

Figure 6: The Three Level of Culture.



Artifacts are visible structures, processes, and observable behaviors. The artifacts of a reliable[9] organization may be flat structure, clarity of roles, predefined decision-making process during normal and crisis times, risk management habit, predefined crisis management team, existence of a crisis management plan, habit of assessing the unexpected, and the habit of learning from failures.

[9] Be aware that I am using the concept reliable as a synonym of resilience.

Values are understood as ideals, goals, and aspirations. A reliable organization would honor flexibility, adaptability, self-awareness, failure as a way to learn, collaborative work, strong relationships, creativity, sense of humor, and purpose.

Assumptions are composed of unconscious behaviors, thoughts, and feelings. A reliable organization would possess a shared assumption of the ability to change as its main strength, adaptability as part of its daily methods, a common sense of mutual support, and recognition of the responsibility to overcome adversity.

Reliable organizations are aware that facing a changing environment requires the ability to go through a metamorphosis, a way for the culture to adapt quickly. In other words, organizational cultures will be strong and resilient once they identify and truly, mutually share their purpose with their stakeholders. Once people and organizations find something that merits the effort of self-renewal (Hamel, 2007), the process of changing their assumptions during that renewal will be the way to create a stable and adaptable, therefore reliable, culture. That means translating the idea of the individual oxymoron structure (Cyrulnik, 2011) into the system comprising organizations and their workers. Once organizations lose their fear of failure and decide to embrace the new normal of change, managing the ambivalence of the oxymoron -- seeing that a phoenix can rise from the ashes of unknown challenges -- will lead them to develop organizational resilience practices.

Following Sutcliffe and Weick (2001), not only the shared values and purpose are important in reliable organizations, we also have to consider all the blind spots that the culture creates once they share some principles. In that sense, beyond the three-level systems of culture (Schein, 2010) we have to include the co-existence of subcultures,

opposite culture, or diversity of culture that might exist inside the organization, because more inclusive cultures tend to be more differentiated since they accept ambiguity, which in turn enables them to create more diversity. The existence of more diversity makes an organizational culture more complex, but at the same time with a broad spectrum of behaviors and diversification where consensus, dissensus, and confusion co-exist and create the skills to manage adversity (Sutcliffe & Weick, 2001). This diversity is a positive support, in addition to purpose and value, to create the context wherein organizations are more capable of developing a reliable culture. The resilience culture is latent in the interrelationships of actors and agents in the system, through people's narratives, so it is sharing experience and building relationships that fosters resilience. Organizational resilience culture is not about writing instructions, but it is essentially fostering and nurturing relationships and values that enable resilience to be displayed.

In summary, organizations can and must develop resilience cultures – as held by individuals, as organizations, and within communities – in order to manage the many kinds of crises they may have to face.

From the individual resilience perspective, people cannot anticipate how they will perform under uncertain circumstances, but we all have the potential to use our inner strengths to face adversity and rebuild ourselves. In this individual perspective, the recognition of and our freedom itself to choose how to face adversity is a key factor in shaping individually resilience attitudes. The fact that we are not able to anticipate our feelings or behaviors doesn't mean that we have to walk with our eyes closed. It only means that our development as individuals requires insight, being aware of our limitations, and cultivating the art of being flexible. Flexibility gives human beings the

energy and strengths to face adversity, while overcoming the basic emotion of fright. Since being scared tends to immobilize, resilient flexibility as an attitude might be the best tool to invoke our inner strengths.

From the organizational resilience perspective, even though organizations are able to recognize their context of complexity and challenge, they also have limited resources to control the risks that the new global context poses. In that sense, organizations will be able to anticipate some risks (to overcome them), manage others (to mitigate their consequences), or suffer from unexpected contexts that will require them to adapt and recover into a new entity in as little time as possible. Individuals have the freedom to choose how to face the unexpected (Cyrulnik, 2011). People acting systemically as organizations also have this freedom, but they express it through their crisis - resilience plan and decision-making process.

From the community resilience perspective, there is no way to avoid crisis and imagine a future without changes. Therefore, a strong sense of reality, in combination with visionary leaders and well-organized priorities, will develop dynamic communities. As I mentioned in the first chapter of this capstone, in order to implement sustainable change, communities will, like Chile, need *resources, which* provide favorable access to and distribution of economic resources; *technology,* which assures quantity and quality of different communication technologies; and *learning* that must continue as a conscious and unconscious process, through several generations. But the integration of these three factors is not enough. We must include creativity and innovation as tools to drive new ideas, disruptive proposals, and the dose of diversity that allows the community to make a difference by leveraging the uniqueness of its various sustainable change challenges.

Diversity attracts the sort of creative capital that catalyzes high-tech innovation (Hamel, 2007). In my opinion, the fact that Chile, as a country, is going in the right direction is the reason why it was used as a referent for the Oregon Resilience Plan. But its capacity is still located only at high-level political structures, and therefore there is a significant need to transfer this capacity also to the country culture, and embed it in organizational practices.

As a clinical psychologist, I think that the main message of this capstone is that all our clients/patients could have the potential to overcome adversity, and we, as clinical psychologists, can be the support that they are looking for. Someone asking for help deserves all of our attention, energy, and commitment to facilitate the painful process of change. Whether the patient is an individual, a couple, or a family, in a clinical context we are there to facilitate their lives.

My message to organizational consultants is to really try on the lenses of triple-faceted resilience, cultivate flexibility as one of their skills to understand organizations, and be a change agent for the future management paradigm. In my opinion, there will be no sustainable organizations if they don't cultivate the resilience culture that consultants can help promote.

Further Studies

For those who want to undertake further studies in this field, I would recommend complementing my case studies with some current information about Sandler O'Neill to learn how this organization is continuing to transfer their knowledge, managing risks, and dealing with their current business management with emphasis on applying the lessons

learned, and how they are cultivating a resilience culture, resilient leaders, and resilient teams.

If the case study about the Oregon Resilience Plan is of interest, my suggestion is to keep track of how this plan is developing and how they are implementing the suggestions that the plan made. A second area of interest in this respect is how the ORP will overcome external influences, such as political changes, weather changes, economic crises, or other crises that might affect the State over the next 50 years.

In the large scale context, I suggest observing other initiatives, such as Building New Orleans (experience after Katrina's Hurricane) led by The Rockefeller Foundation and The Greater New Orleans Foundation, or the recently created Chief Resilience Officers program, which is a grant by The Rockefeller Foundation for investment in local governments. Another process to study is how Japan is dealing with the consequences of their last major earthquake and tsunami, which have had important effects on their power plants. Even though Chile might appear to be a good referent in terms of managing the effects of an earthquake, unfortunately I don't know about any initiative in South America or Chile to improve our resilience programs to deal with natural disasters. This will be one of my challenges when I return to my country.

If the reader's interest is to know more about other organizational cases, I suggest the cases: "Temporary, Emergent Inter-Organizational Collaboration in Unexpected Circumstances: A Study of the Columbia Space Shuttle Response Effort" in *Organization Science* (Beck, T & Plowman, D., 2013), or the *Apollo 13* recovery (Lovell J. & Kluger, J. 1995). In case you want to know more about the organizations in the Twin Towers before and after 9/11, there is a good graphic with some information in an article from the

Forbes magazine, "Companies in the Twin Towers: Before and after 9/11" (VanderMey & Adamo, 2014) including companies such as Cantor Fitzgerald, or Morgan Stanley.

In terms of individual resilience, the book *Open* (Agassi, A. 2009) is a good personal story on how the process of change includes courage, pain, and power. Other individual histories to review are Ann Purdy's (who lost both her legs below the knee at the age of 19, but became a snowboard champion), and Hugh Herr's (director of the Biomechatronics group at MIT's Media Lab, who lost both legs in a mountain climbing accident, and became an elite mountain climber).

A Personal Reflection

The hardest part of writing this Capstone was starting this fifth chapter, not because of its content but because of the meaning of this chapter. It means the end of a wonderful experience, two years of intensity, passion, happiness, and difficulties that are almost over. I feel how the structure of the oxymoron is functioning among my conflicting feelings -- happiness and sadness coming simultaneously because of the same event: "finishing my graduate studies." Meanwhile, in order to knit my arising personal and professional future as a clinical psychologist/consultant, I am appealing to my own energy to put together the thoughts, lessons learned, and findings that give meaning to the next step in my life.

At a very personal level, the Capstone requirement has been an intense contribution to my experience as a graduate student, because it has encouraged me to look at one topic of my own interest, navigate through different approaches and research them. Additionally, it has been an opportunity to have open discussions with other graduate students and interesting conversations with some professors. Because it was a

topic that captured my attention from the very beginning of my graduate program, I have been able to analyze the concept of resilience through the lenses of different classes throughout the program. Finally, writing this capstone has helped me in making an argument that summarizes my understandings. The process of learning from others, from myself, and from observing the phenomenon of resilience from different and critical perspectives is what I think is the most valuable benefit of this program.

The insights of this capstone are a source of motivation for my continuing development as an organizational consultant in Chile and as a researcher. As a consultant I would like to focus on global organizations, offering my services of developing global leadership, sustainability, and change management. In my opinion, the main link in the chain is to encourage organizations to wear the lenses of organizational resilience and embrace changes not only because of the organizational context but also as an ability to anticipate and manage the unexpected. As a researcher I would like to explore the concept deeply, adding more sources and cases either from my clients or from my country. I would like to contribute to the body of knowledge by taking lessons learned from real cases. By doing that I think I would be able to improve resilience policies in Chile and other countries suffering the vulnerabilities of uncertain events.

As you can observe, the end of this chapter is just another beginning, a new spectrum of challenges, dreams and things to learn. My inspiration has been to contribute to develop my family, my career, the Organizational Dynamics program, and my country. I still have conflicting feelings, but now I know that I do have the potential to overcome whatever will be the next obstacle in life. I hope you and your organization do, too.

REFERENCES

60 minutes. (2002, September). Sandler O'Neill 9/11 . Retrieved from https://www.youtube.com/watch?v=QpCzszOnYwI

Agassi, A. (2009). *Open.* New York: Aka Publisher.

Association, A. P. (2012). *Publication Manual.* Washington DC: APA.

Berkes, F., & Turner, N. (2006). Knowledge, Learning and the Evolution of Conservation Practice for Social-Ecological System Resilience . *Human Ecology, Vol. 34, No. 4*, 479-494.

Bhamra, R., Dani, S., & Burnard, K. (2012). Resilience: the concept, a litterature review and future directions. *International journal of Production Research 49, 18*, 5375-5393.

Britannica. (2014). *Dictionary and Thesaurus*. Retrieved from Merriam Webster on line: http://www.merriam-webster.com/

Centre for Research on the Epidemiology of Disasters. (2014, May 21). *Disaster List*. Retrieved from The International Disaster Database: http://www.emdat.be/

Chatuverdi, R. (Performer). (2014, February 12 and 17). *Global Leadership application class.* University of Pennsylvania, Philadelphia, PA, USA.

Collins English Dictionary. (2014, November 4). Retrieved from Dictionary.com: http://dictionary.reference.com/browse/true north

Collins, J. (2011). *Great By Choice.* New York: Harper Business.

Cyrulnik, B. (2011). *Resilience: How your Inner Strength can set you free from the past.* London: Penguin.

Denning, S. (2011). *The Leader's guide to Storytelling.* (D. Edition, Ed.) San Francisco: Jossey-Bass.

Folk, C. (2006). Resilience: The Emergence of a Perspective for Social-Ecological Systems Analyses. *Global Environmental Change 16*, 253-267.

Ford, D., & Saeed, A. (2014, April 2). *Powerful earthquake strikes off Chile, triggers tsunami*. Retrieved from CNN World: http://www.cnn.com/2014/04/01/world/americas/chile-earthquake/

Frankl, V. (2006). *Man's search for meaning* (First published in German in 1946, 2006 5th ed.). Boston: Beacon.

Freeman, S. (2013, October 5). *Crisalis*. Retrieved October 5, 2013, from Crisalis Converting crisis into oportunity: http://crisalis.cl

Freeman, S., Hirschhorn, L., & Maltz, M. (2003). *Organizational Resilience and Moral Purpose: Sandler O'Neill & Partners, L.P. in the Aftermath of the September 11, 2001 World Trade Center Attack.* Madison: Academy of Management.

George, B. (2007). *True North.* San Francisco: Jossey-Bass.

George, B. (2014, April 24). *Becoming an Authentic Global Leader.* (B. George, Performer) The Franklin Institute's Franklin Theater, Philadelphia, PA.

Gobierno de Chile [Chilean Goverment]. (2014, January 15). ONEMI. Santiago, Region Metropolitana, Chile. Retrieved from http://www.onemi.cl/presentacion/

Gobierno de Chile [Chilean Government]. (2010, August 27). Plan de Reconstruccion Terremoto y Maremoto del 27 de Febrero de 2010 (Reconstrucction Plan after the Earthquake and Tsunami on February 27, 2010). Santiago, Region Metropolitana, Chile. Retrieved January 5, 2014, from

http://www.ministeriodesarrollosocial.gob.cl/pdf/plan-reconstruccion-resumen-ejecutivo.pdf

Hamel, G. (2007). *The Future of Management.* Boston: Harvard Business School Press.

Hamel, G., & Välikangas, L. (2003, September). *The Quest for Resilience.* Retrieved from Harvard Business Review: http://hbr.org/2003/09/the-quest-for-resilience/ar/1

Hill, L., Brandeau, G., Truelove, E., & Lineback, K. (2014). *Collective Genius: The Art and Practice of Leading Innovation.* Boston: Harvard Business Review Press.

Hillson, D. (2009). *Managing Risk in Projects.* Burlington: Gower Publishing Company.

Hubbard, D. (2009). *The Failure of Risk Management: Why It's Broken and How to Fix It.* New Jersey: John Wiley and Sons.

Inc., A. (2014, October 20). *Oregon*. Retrieved from All US Cities: http://www.city-data.com/states/Oregon.html

Inc., w. (2014, September 15). *About*. Retrieved from Aimee Mullins: www.aimeemullins.com/about.php

Kaplan, R., & Mikes, A. (2012). Managment Risk: A new Framework. *Harvard Business Review*, http://hbr.org/2012/06/managing-risks-a-new-framework/ar/pr.

Kapucu, N., Hawkins, C., & Rivera, F. (2013). *Disaster Resiliency, Interdisciplinary perspectives.* New York: Routledge.

Mc Cann, J., & Selsky, J. (2012). *Mastering Turbulence: The Essential Capabilities of Agile and Resilient Individuals, Teams and Organizations.* San Francisco: John Wiley & Sons.

Meier, F. (2014, November 4). *The Blind Men and the Elephant in Islamic Thought.* Retrieved from KHEPER: http://www.kheper.net/topics/blind_men_and_elephant/Sufi.html

Miller, S. (2014, May 11). *Nordic cuddly capitalism: Utopia, no. But a global model for equity.* Retrieved from The Christian Monitor: http://www.csmonitor.com/World/Europe/2014/0511/Nordic-cuddly-capitalism-Utopia-no.-But-a-global-model-for-equity

Ministerio Desarrollo Social [Social Development Ministry]. (1993, September 28). CONADI. *Fondo de Cultura y Educacion (Culture and Education Funds)*. Santiago, Region Metropolitana, Chile. Retrieved November 6, 2014, from http://www.conadi.gob.cl/index.php/atencion-ciudadana/fondo-de-cultura-y-educacion

Mistral, G. (2003). The Rose. In G. Mistral, *Selected Poems of Gabriela Mistral* (U. Le Guin, Trans., p. 143). Nuevo Mexico.

Mitroff, I. (2005). *Why some companies emerge stringer and better from a crisis: Seven Essential Lessons for Surviving Disaster.* New York: AMACOM.

Mitroff, I., Pearson, C., & Harrington, K. (1996). *The essential guide to managing Corporate Crises.* New York: Oxford University Press.

Molinsky, A. (2013). *Global Dexterity.* Boston: Harvard Business Review Press.

Mullins, A. (2010). Oportunity of adversity (youtube). Retrieved from http://www.youtube.com/watch?v=dTwXeZ4GkzI

Neruda, P. (1974). Oda a las cosas rotas [Thinks Breaking]. In P. Neruda, *Five Decades: Poems1925-1970* (B. Bellit, Trans., pp. 150-151). New York: Grov Press.

Oregon Seismic Safety Policy Advisory Commission [OSSPAC]. (2013). *Oregon Resilience Plan.* Salem: Report to the 77th Legislative Assembly.

Patakos, A. (2010). *Prisioners of our thoughts.* San Francisco: Berrett-Koehler.

Project Management Institute Inc. (2009). *Practice Standard for Project Risk Management.* Newtown Square: Project Management Institut.

Sandler O'Neill & Partners, L. (2014, September 30). *Firm*. Retrieved from Sandler O'Neill & Partners LP.: http://www.sandleroneill.com/index.htm

Schein, E. (2010). *Organizational culture and leadership.* San Francisco: Jossey-Bass.

Schimmel, R. (2008). *Cancer on $5 a day*. Cambridge: Da Capo Press.

Simmons, A. (2006). *The Story Factor: Secrets of Influence from the Art of Storytelling.* (D. Edition, Ed.) Cambridge: Basic Books.

Skiddy von Stade. (2013, August 7). Jimmy Dunne III, Co-founder & Senior Managing Principal - Sandler O'Neill. New York, USA. Retrieved from https://www.youtube.com/watch?v=44ddviZ4xZI

Suctilffe, K., & Vogus, T. (2003). Organizing for Resilience. In K. Cameron, J. Dutton, & R. Quinn, *Positive Organizational Scholarship* (pp. 94-110). San Francisco: Berret-Koehler.

Sutcliffe, K., & Weick, K. (2001). *Managing the unexpected: Assuring high performance in an age of complexity.* San Francissco: Jossey-Bass.

Sutcliffe, K., & Weick, K. (2007). *Managing the unexpected: Resilient performance in an age of uncertainty*. John Wiley & Sons.

Ted.com. (1998). *Ted.com*. Retrieved from Changing my legs - and my mindset: https://www.youtube.com/watch?v=pG5X31CDg_g

U.S. Geological Survey. (2014, January 23). *Historic Earthquakes*. Retrieved from Earthquake Hazards Program: http://earthquake.usgs.gov/

VanderMey, A., & Adamo, M. (2014, November 5). *Forbes Magazine.* Retrieved from Companies in the Twin Tower: before and After 9/11: http://archive.fortune.com/magazines/fortune/twintowers/

Weick, K. (1988). Enacted Sensemaking in Crisis Situations. *Journal of Management Studies 25:4,* 305-316.

Wong, Y., & Clark, J. (1999). Earthquake damage in Oregon: Preliminary estimates of future earthquakes losses. (O. D. paper, Ed.) Oregon, USA. Retrieved from www.oregongeology.org

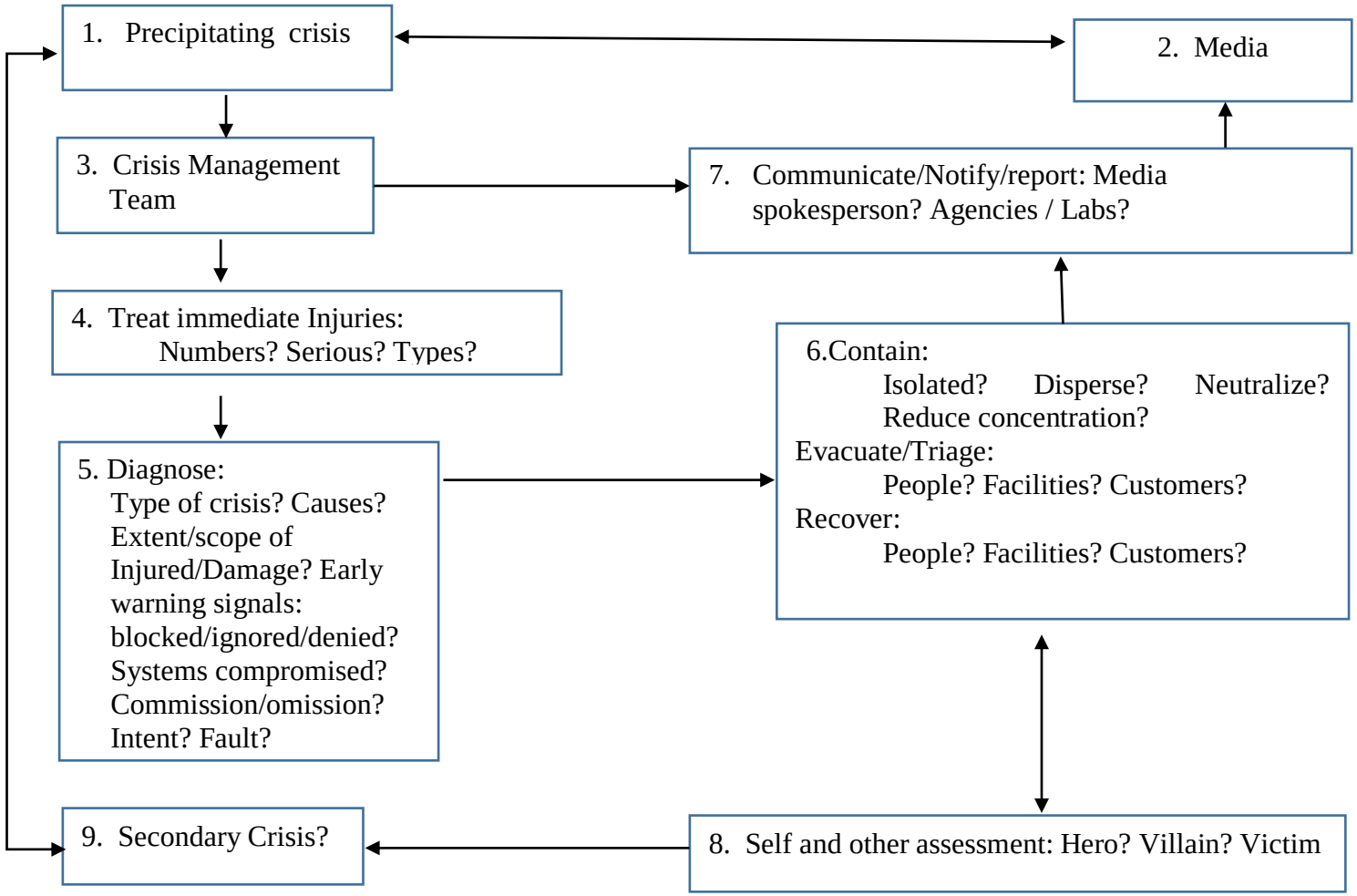
Zolli, A., & Healy, A. (2013). *Resilience, Why Things Bounce Back.* New York: Simon and Schuster.

APPENDIX

Appendix A: *The Blind Men and the Elephant*

. . . they resolved to obtain a picture, and the knowledge they desired, by feeling the beast - the only possibility that was open to them! They went in search of the elephant, and when they had found it, they felt its body. One touched its leg, the other a tusk, the third an ear, and in the belief that they now knew the elephant, they returned home. But when they were questioned by the other blind men, their answers differed. The one who had felt the leg maintained that the elephant was nothing other than a pillar, extremely rough to the touch, and yet strangely soft. The one who had caught hold of the tusk denied this and described the elephant as, hard and smooth, with nothing soft or rough about it, more over the beast was by no means as stout as a pillar, but rather had the shape of a post ['amud]. The third, who had held the ear in his hands, spoke: "By my faith, it is both soft and rough." Thus he agreed with one of the others, but went on to say: Nevertheless, it is neither like a post nor a pillar, but like a broad, thick piece of leather." Each was right in a certain sense, since each of them communicated that part of the elephant he had comprehended, but none was able describe the elephant as it really was; for all three of them were unable to comprehend the entire form of the elephant. (Meier, 2014)

Appendix B: Flow of sequence and critical decisions to the initial action phase of CM



Appendix C Things Breaking

(Neruda, 1974)

. . . no one with a nose or an elbow

or the lengthening span of a hip,
or a gust of the wind
or an ankle:
yet the crockery smashes, the lamp
tumbles over,
the flowerpots totter
one after another
crowning the lapsing October
with crimson,
wan with their surfeit of violets,
others holding their emptiness in,
circling
and circling and circling
the winter,
till the bowl with its blossoms
is gruel,
a keepsake in ruins, a luminous dust.

And the clockface
whose cadences
uttered
our lifetimes,
the secretive
thread
of the weeks,
one after another,
yoking the hours
to the honey and quietude,
the travails and births without end –
even the clock
plunges downward, the delicate blues
of its viscera
pulse in the splintering glass
and its great heart
springs open.

Life grinds
on the glasses and powders, wearing us
threadbare,
smashing to smithereens,
pounding
the forms ;
whatever is left of its passing abides
like a ship or a reef in the ocean,
and perishes there
in the circle of breakable hazard
ringed by the pitiless menace of waters.

Let us gather them, once and for all – the
clocks
and the platters, cups carven in cold–
into a poke with them all and
down to the sea with our treasure!
there let our furniture smash
in the sinister shock of a breaker;
let the things that are broken
call out like a river
and the sea render back to us whole
in the might of its crosscurrents
all that we held of no worth,
the trumpery no hand has broken,
but still goes