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Beauty is Precious, Knowledge is Power, and Innovation is Progress: Widely Held Beliefs in Policy Narratives about Oil Spills

by

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A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy
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Keywords: public policy, culture, narratives, comparative analysis, collective beliefs

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DEDICATION

When I was graduating with my Master's degree in 2004, my mother gave me a little box with a bow on it. She said, "This is for your Ph.D." I replied, "No way! I don't think I'll go on for the doctorate." I had plans for applied research and consulting. She smiled. "Yes, you will." In the box is a ring with my favorite gemstone – blue topaz. The blue reminds me of the color of her eyes. Sadly, she died unexpectedly and suddenly in April 2011. Not long afterwards, my father died of stomach cancer in February 2013. There were moments when the grief from loss was so thick; it was difficult to concentrate. But, I persevered. I was compelled to complete my work in honor of their inspiration: My mother who had a knack for creating beauty in her many gardens inspired me to attend to the small details and to iron out the kinks. Her mirth and whimsy fill my heart with curiosity and imagination. And my father with his love and respect for water and our shared resources inspired me to keep an eye on the big picture. His commitment and strength gave me endurance and faith. I am so thankful for their presence in my life.

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Furthermore, she shared her command of theory, writing and argumentation in her many reviews of previous chapters and papers that continue to influence my research.

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ABSTRACT

Scholars from diverse perspectives have sought to understand the features and mechanisms that influence the design and implementation of public policy. Some (realists) have emphasized the role that material interests have played while others (idealists) have emphasized the influence of subjective ideas on 'how policy means' (Yanow 1996). Recently, observers in both camps have demonstrated curiosity in the influence of culture on policymaking and its consequences. Regrettably, this shared concern has not resulted in much collaboration across epistemological divides.

I argue that narrative analysis provides a way to bridge the divides by specifying an interpretive approach that identifies culture as encompassing both interests and ideas in policymaking processes. I draw from the works of scholars in phenomenology, narratology, cultural sociology, disaster studies and public policy to illustrate a systematic approach to investigating and interpreting congressional hearings as narratives that reveal cultural taken-forgranted assumptions about how the world should work (Loseke 2003). I argue that examining narratives of political actors can empirically delineate both objective interests as well as subjective ideas. In particular, I compare and contrast diverse stories about three U.S. oil spills (Santa Barbara, Exxon Valdez and Deepwater Horizon) to illuminate taken-for-granted beliefs about our social and natural worlds. With this emphasis, I aim to contribute to understandings of how culture works in policymaking, which also sheds light on how culture may influence the wider social order more generally. I conclude with a discussion of potential implications regarding our shared natural resources.

PREFACE

In what follows, I argue from a constructionist perspective that culture, conceptualized as widely held beliefs, is observable in the stories we tell. With support from cultural studies across disciplines, I assert that in order to capture the way culture influences policymaking, analysts should examine the way actors make sense of objects and events such as oil spills. Accordingly, this dissertation presents a narrative comparative analysis of narratives about three oil spills as told in congressional hearings. I examine hearing testimonies for how they depict the setting or context, plot, characters and underlying morals which constitute cultural influence on storytelling.

The first event I analyzed is the Santa Barbara oil spill that occurred in 1969. The second is the Exxon Valdez oil spill that occurred in 1989. And the last is the Deepwater Horizon oil spill that occurred in 2010. While each event was separated by nearly 20 years respectively, I note enduring beliefs with regard to the moral importance of natural beauty, knowledge and learning, innovation and nationalism. In the end I argue that these beliefs, while not obdurate and static "things" have influence over our practices. With this awareness, I suggest that practices can change with thoughtful consideration of the beliefs we hold as sacrosanct.

Beliefs are powerful. In the popular imagination, the word belief conjures notions of "something believed or accepted as true"...something that is characterized by goodness or effectiveness. Belief refers to "something that somebody believes in: a statement, principle, or doctrine that a person or group accepts as true." This last definition points to the concept more relevant to the present work – collective or widely held beliefs. That is, collective beliefs are

statements, principles, or doctrines held true by groups of individuals. But, what of my interest in widely held beliefs?

Classic sociologist, Emile Durkheim (2008[1915]), thought that beliefs have power over individuals and groups. He regarded "collective beliefs" as social facts that impose themselves on the expectations and conduct of individuals. He conceptualized "collective representations" as governing and coordinating "things." Durkheim considered himself to be a rational scientist who took on the study of social institutions with specific methodological rules and conceptions. His call for precision in sociology is evidenced in his treatment of social facts and social processes as objects to be studied that are external to and impose constraints over individuals. For Durkheim, social facts took on a life of their own, so to speak. That is, collective beliefs cause social stratification, occupational specialization, bureaucratization, individual action, suicide and so on.

Durkheim's ideas contribute to the present work in that they provide the grounds for questioning the way beliefs might influence social processes such as policymaking. However, Durkheim's notion that collective beliefs are objective and causal has been challenged on the grounds that it is presumptive. He posits a "reality" out there that is objective and external to individual minds and experiences. Such a position paints the picture of a static, objective reality that is understood by all actors in the same way. Durkheim's analytical attention to macro social forces has the consequence of homogenizing individual subjects as spectators within an objectively shared reality. Such consequence paved the way for a vast disciplinary rebuttal, which in my view provides even more support for exploring the potential links between beliefs and policymaking; beliefs and world making.

Max Weber wrote against Durkheim's deterministic view of society and turned the analytical emphasis around. Indeed, Weber is often interpreted as having pushed back against the

tendency to view material reality, or "historical materialism" as the primary social force determining the wider social order. Where Durkheim (and other materialists such as Marx) highlighted the power of social forces, Weber highlighted the power of subjective and intersubjective interpretations. That is, Weber challenged the idea that a reality exists outside of individual experience and that any attempt to describe the causes of cultural phenomena or social processes was inherently value-laden and transitory.

Weber questioned Durkheim's idea that there can be an objective social science because he questioned the existence of "objective" analysis of social phenomena. Given the vast diversity and variety of individuals, views, beliefs and socio-historical contexts, circumstances and conditions, the notion of a shared objective world for Weber was absurd. For Weber, it is difficult to establish the causal power of social facts since the idea of social facts is subjectively defined. That is they "possess no inherent criterion" (2012:117). In his famous essay about objectivity in social science, Weber asks: "How is the causal explanation of an individual fact possible – for it is impossible to conceive of a description of even the smallest section of reality that could ever be exhaustive?" (2012:117) Still, Weber inspires a systematic approach for the analysis of cultural phenomena. Further, he suggests that analysts conceptualize social phenomena as "ideal types" with a caveat that we should expect our findings about what and how they are constituted to be overturned in our lifetimes. Weber was a cautious and perhaps humble social historian.

Albeit with different nuances, both Durkheim and Weber document the force or influence of widely held beliefs on the conduct and substance of social life. While Durkheim might argue more forcefully for the causality of social facts, Weber notes the fleeting influence of "world images" on social practices. Interestingly enough, despite their theoretical and methodological

differences, both scholars explore similar socio-cultural phenomena and institutions but from different vantage points. Surprisingly, their works hint at shared conclusions. Where Durkheim observes the organizing influence of collective conscience and collective representations that help to explain social phenomena such as suicide, Weber observes the organizing influence of a shared religious ethic in the origin of economic systems such as capitalism in the West.

In sum, there is a long history of sociological work that suggests that beliefs matter. But how? I follow scholars who argue that widely held beliefs constitute culture and that culture both influences and is influenced by social processes. I aim to document the influence of culture on social processes by examining a particular social process – policymaking. I rely on the foundational work of Durkheim and Weber in my exploration of the way culture works in the social process of policymaking. I follow the rules set by Durkheim that in order to observe widely held beliefs I must regard them as empirical things that can be observed. However, I use the caution inspired by Weber to abstain from suggesting that social facts are indelible, permanent, fixed, and supported by unilateral agreement among diverse individuals. I rely on Weber's conception of ideal type to establish the focus of my analysis of how culture works in policymaking. I argue that inductive interpretations of policy narratives told within congressional hearings can reveal taken-for-granted assumptions. In my view, these assumptions are tantamount to what we might consider shared values and widely held beliefs. Perhaps we can think of world images of social facts...or typifications of collective representations. Either way, in this project, I argue that beliefs (however transitory) are powerful things.

CHAPTER ONE: INTRODUCTION

I begin this work with a theoretical assumption that beliefs are powerful. The notion that beliefs are powerful influences on social processes is well supported by the works of classic and contemporary sociologists (Snow and Benford 1988, Berger and Luckmann 1966, Boudon 2001, Borhek and Curtis 1975, Dixon 1980, Durkheim 2008[1915], Weber 2013[1946]). I launch into this project with a keen interest in exploring how widely held beliefs influence social processes by focusing on a particular process, specifically – policymaking. Further, I argue that by understanding the beliefs that are collectively held, we can approximate the influence of culture on policymaking in particular, and world making in general.

Scholars from several disciplines have sought to understand the complex dimensions and mechanisms that shape policymaking, from understanding problem definition to policy design and implementation. Researchers investigate social problems and their policy responses using a variety of perspectives to investigate *what* is constructed as problematic as well *how* it is constructed as problematic and with what implications. While much work has been done to document the ways material interests and political power of actors and groups are linked to the design and implementation of public policy, scholars have called for more analytic attention to the ways culture or widely held beliefs about the social world bears influence as well (Burstein and Hirsh 2007, Heinz 1993, Miller 2008, Padamsee 2009, Sabatier 1987, Sabatier and Jenkins-Smith 1999, Wedeen 2002). I hope to contribute to the discussion about cultural influence in policymaking by focusing on the question: How does culture work in public policymaking? That is, how does *culture*, understood as a "historically transmitted pattern of meanings embodied in

symbols" (Geertz 1973:89) shape possibilities for policy responses to events and conditions deemed problematic? Furthermore: How can a cultural analysis of policymaking inform our understanding of the wider social world in general? More specifically, my research questions are:

- Who constructs policy problems in congressional testimony? What special interests do stories and storytellers represent?
- How do storytellers define policy problems in policy narratives? What symbols, images, metaphors, words, and rhetorical devices are used to construct an event or condition as problematic in congressional testimony?
- How do storytellers construct the cause and consequences, as well as prescriptions
 or resolutions to problems? What language is used in policy narratives to
 persuade audience members that something should be done about problematic
 events or conditions?
- What is taken for granted, or assumed in stories that define policy problems and their resolutions?
- How are assumptions within policy narratives linked with the wider social order?
 How does meaning making in policy stories contribute to and perpetuate the social order?

Cultural analysis in public policy is challenged by disciplinary divisions. Social observers such as Stone (1997) and Fischer (2003) have identified large theoretical and methodological debates that have been reified over time so as to prevent more holistic understanding of policymaking processes and potential social consequences. Traditionally, research in public policy has applied a natural science model of investigation that puts the policy

problem as an objective thing under the microscope to determine its features and characteristics. Indeed, much of the work by traditional realist scholars has emphasized the influence of material interests and political power on the development of policy agendas, goals and solutions to policy problems. Realists argue that scientific investigation must be predicated on a research model that begins with clearly defined hypotheses that must be falsified through systematic, deductive analytic techniques (Sabatier 1999, Jones and McBeth 2010). This perspective's epistemic orientation stems from the notion that there is a real world out there to be discovered and explained with rigorous, investigative tools. Unfortunately, according to both Stone (1997) and Fischer (2003), this emphasis has obscured the ways that policy problems become taken-forgranted as objective things in the first place.

Over the last several decades, scholars have rebutted the *a priori* assumption among realists that policy problems are objective things. Influenced by what has been referred to as the constructivist turn, the countering analysts (labeled as idealist by writers such as Fischer and Stone) placed analytic emphasis on the subjective, rhetorical, linguistic construction of policymaking processes (Fischer 2003, Hulsse and Spencer 2008). Idealists insist that the assumption that there is a real problem to investigate is deterministic and blinds analysts to the ways ideas and meanings influence not only what is problematic, but how it is so constructed. The epistemological position of idealists is that we can know about our empirical world by examining the ways actors define, and make sense of social phenomena via language and communication. Accordingly, these scholars have utilized interpretive research methods for investigating the ways policy problems are defined as well as the social consequences of the processes through which definition is accomplished. With the interpretive lens, policy researchers have explored the underlying meanings, constructions and ideas that shape what we

understand as problematic and in need of intervention (Fischer 2003, Stone 1997 and Yanow 1996, Brysk 1995).

There are now decades of studies that exemplify the divergent theoretical and methodological perspectives on public policy. However, due to what Schneider and Ingram (2007) argue are disciplinary and epistemological disagreements, collaboration across theoretical and methodological divides has been difficult. I wish to sidestep the debate about what type of knowledge is more superior as there is considerable support across domains for multiple ways of knowing. Instead, I follow researchers such as Padamsee (2009), Campbell (2002) and Steensland (2006) and others who are paving the way toward a middle ground. I am interested in contributing to the dialogue about policy problem definition with a focus on how subjective ideas and material interests are linked. In my view, the projects among diverse scholars are compatible, despite internal epistemological disagreements. Both realists and idealists are eager to explore the way *culture* works in policymaking, but often get sidetracked by either attacking the opposing position or defending their own (See Shanahan, Jones and McBeth 2011).

The shared curiosity in wider socio-cultural influences in policymaking presents an opportunity to observe and document the interplay between the realist emphasis on objective reality and the idealist emphasis on subjective meaning making. Both the real and the ideal exist and are embedded in a wider cultural context. Documenting the cultural influence on social processes of policymaking about tangible events is the goal of this dissertation. In so doing, I attempt to answer Gubrium and Holstein's (1997:101) call to illuminate the links between "representation and reality." Representations refer to the processes actors use to make sense of objects in their social world and reality refers to the tangible, objective events and actions that

actually happen. As this work attempts to show, understanding the cultural influences on policymaking can help to illuminate the ways culture works in social life more generally.

To accomplish my goal, I begin my analysis with an interest in objectively real events — oil spills — and I investigate narrative constructions that attempt to make sense of these events. In policy literature, oil spills can be understood as "triggering events" (Button 2010) or "focusing events" (Birkland 1997, Kingdon 1995) or "exogenous shocks" (Drazen and Masson 1993) that initiate policymaking. As True, Baumgartner and Jones (1999) have argued, events such as oil spills "punctuate the equilibrium" to initiate change in policy response. From a sociological perspective, oil spills can be understood as a social or cultural object (Griswold 2013:11, Schudson 1989), which means something that can be either tangible or intangible that has "shared significance embodied in form." Arguably, placing emphasis on how actors make sense of cultural objects enables analysts to capture culture as a larger system that shapes and is shaped by material interests and practices as well as subjective ideas and meanings (Griswold 2013). In summary, a tangible policy problem such as an oil spill can be regarded as culturally significant; the significance of which is observable in the practices (such as storytelling) that make them meaningful.

So, how can we observe culture in triggering events, cultural objects, or policy problems such as oil spills in order to explore its influence on social processes such as policymaking? Cultural sociologists proffer many methods for this investigation (see Spillman 2002), but narrative analysis is perhaps the most common (Griswold 2013, Smith 2005, Stone 1997, Jones and McBeth 2010). Narratives are stories that are told with a purpose (Mitchell 1981). Narratives in policymaking are told to persuade, convince, defend, describe or to define a situation – to make sense of something that has gone wrong and suggest how to make it right

(Fischer 2003, Gubrium and Holstein 2009, Stone 1997). The way policy narratives provide evidence of cultural influence is that they must appear to be "true" or to have "narrative verisimilitude" (Bruner 1991) or "narrative coherence" (Rideout 2013). Policy stories must resonate with audience members. In order for narratives to resonate with audience members, they must be intelligible, and coherent; they must make sense.

In this work, I argue that widely held beliefs, or taken-for-granted assumptions constitute the scaffolding that provides for that coherence or verisimilitude. Widely held beliefs hold stories together (Bruner 1991). Descriptions of settings, characters, plots and morals in policy narratives offer empirical evidence for underlying taken-for-granted collective beliefs. As such, I contend that narratives are analytically useful for observing the way culture or widely held beliefs work in social processes such as policymaking and by extension, world making.

Learning more about how culture influences policymaking requires understanding the narratives, or the stories told about policy problems. By focusing on policy problems or triggering events as cultural objects, we can explore the ways subjective processes of meaning making (representations) are linked to material interests, power and practices (reality) that are evident in event descriptions and definitions. Considering the way interests and ideas are linked moves theoretical explanation beyond *either* interests *or* ideas, to *both* interests *and* ideas. Such insight is productive not only for scholars focused on how to explain and predict the policymaking process, but also for those who investigate the ways that widely held beliefs or shared significance in policymaking reflects and perpetuates the wider social order.

A focus on narratives in public policy can help to specify the dynamic interactions between culture and society; structure and agency. In particular, narrative analysis is valuable for exploring processes of social construction and social change (or persistence), as well as for

showing the ways in which social order and action are shaped by the cultural context in which they emerge and are maintained (Loseke 2003, Smith 2005). Especially in what Swidler (1986) refers to as "unsettled times," cultural influence is observable in actors' stories about exogenous shocks or disaster events that have the potential to make the wider social order *visible*.

Conceptualizing oil spills as triggering events, or exogenous shocks, provides a productive starting point to delineate links between representation and reality that can illuminate taken-for-granted assumptions about the way the world should work. Indeed, it has been said that by understanding how we make sense of oil spills can tell us a lot about ourselves as a society (Button 2010). There is considerable controversy surrounding the production and extraction of oil as it brings into the foreground tensions between privately owned industrial resources and publicly held environmental resources; privatized profits and socialized risks. And, controversy is heightened when something goes wrong in the process of oil production and extraction. In 1955, journalist Robert Engler wrote "Oil serves as one useful springboard for analyzing the problem of power in America." In my view, oil also serves as a useful site to examine the influence of cultural beliefs and meaning systems on the wider social order. Further, I argue that it offers great potential for exploring the ways interests and ideas are linked due to the way oil extraction and production is embedded in everyday life.

Some scholars have explored questions related to how cultural ideas and contexts shape oil spill events as well as their legislative redress (Beamish 2002; 2001, Birkland and Lawrence 2002; Button 2010; Gramling and Freudenburg 2006, 2012; Ladd 2012 and Morse 2012). However, most examinations of oil spill events privilege the explanation that oil spill policy is driven by powerful interests of oil companies (Molotch 1970, Gramling and Freudenberg 2012, Ladd 2012). Indeed, as Gramling and Freudenburg (2006) (see also Ross 2001) have argued, oil

politics has a tendency to threaten democratic participation which further emphasizes power (or the lack thereof) in policy discussions about how to respond to "disaster" events.

Regrettably, studies that highlight the power of the producer and economic interests obscure how such power and interest is embedded in, and shaped by widely held cultural beliefs and meaning systems. Theoretical explanation continues to flow in one direction – that power shapes culture. Less often do studies consider the ways that culture or widely held beliefs shape and reinforces power. Understanding how conditions are constructed as problematic and in need of intervention requires addressing questions about how individuals shape and are shaped by our surrounding cultural contexts.

Attention to the interplay between interests and ideas as they intersect in political testimony about oil spill events speaks to the broad relevance of this research. First, from a practical standpoint, policy scholars can leverage insights from narrative analyses to aid decision makers in allocating and distributing resources. Second, the study of narratives with a substantive focus on oil spills can delineate the links between structure and agency within political institutions. Third, by highlighting the particular words, metaphors, ideas and images that are used to make sense of oil spills underlying cultural assumptions and widely held beliefs embedded in language are made visible. Finally, because of the link between perceived damage to the natural environment as a result of oil spillage and human practices (that sustain and perpetuate reliance on its extraction and use), my research contributes to conversations that attempt to understand the dynamic everyday interactions between humans and our natural world. By examining the stories told about putative triggering events that initiate policymaking, such as oil spills, not only can we learn more about cultural notions of how the world *should* work, but also what and whom people care about. Policymaking is inherently normative in that it seeks to

make right what is deemed wrong (Stone 1997). Further, we can see how narratives of policy problems delineate structural *and cultural* mechanisms in problem definition that can shed light on alternative possibilities.

This research is organized as follows. The next chapter begins with establishing the theoretical foundation upon which I build my argument for the use of narratives to explore cultural influence in policymaking. In chapter three I explain my methodological approach and rationale for beginning with what policy scholars refer to as triggering or focusing events to explore how cultural mechanisms work in policymaking. Additionally, I detail my systematic procedure for gathering and analyzing congressional hearing transcripts as policy narratives. I specify how I document cultural mechanisms or widely held beliefs that help to show how culture works in policymaking. In chapters four, five and six I provide a detailed analysis of congressional hearings that seek to define three similar events across time in the United States national context: The Santa Barbara Oil Spill 1969; Exxon Valdez 1989 and The Deepwater Horizon Oil Spill 2010. Finally, I conclude with a theoretical discussion about how widely held beliefs in policy narratives are linked with the wider social order in general.

CHAPTER TWO: THEORETICAL FOUNDATIONS FOR EXAMINING NARRATIVES AS CULTURAL EVIDENCE IN POLICYMAKING

Policy scholars are turning their interest to exploring the way culture, (conceptualized in this work as widely held beliefs), influences policymaking. This interest has emerged in part as a response to the need for more sophisticated theorizing about what shapes policymaking processes. In short, scholarship has been divided into camps – the "realists" that prioritize the influence of material interests and political power and the "idealists" that prioritize the influence of ideas or representations in setting policy agendas, defining policy problems and designing interventions (Fischer 2003). This division has undermined efforts to theorize about the ways that interests and ideas are linked or held together by widely held cultural beliefs that are takenfor-granted in policymaking studies and practices.

The purpose of the present work is to contribute to the conversation that encourages collaboration between these seemingly opposed theoretical and methodological paradigms. In this chapter, I summarize the works from both the realists and idealists to lay the theoretical foundation for pursuing an interpretive study of policy narratives to explicate cultural influences on policymaking. Then, I specify the ways narrative analysis has been used and can be used to capture cultural influence. Finally, I outline a framework for a systematic study of policy narratives that can reveal widely held beliefs about how the world should work. Understanding these beliefs can shed light on their influence on the wider social order.

In general, the study of public policy and policymaking is concerned with the creation of rules, laws, goals and standards by government officials as well as the distribution of resources,

benefits and burdens to members of society (Birkland 2010 [2001]). Traditionally, public policy has been studied using the tools of the natural sciences model of research (Stone 1997, Fischer 2003). This so-called rational approach in policy studies has provided insight into policymaking processes such as agenda setting, policy adoption and implementation which has contributed a great deal to theories as well as to the practices of the policymaking process (Birkland 2010 [2001], Burstein and Linton 2002). Traditional or realist approaches have highlighted the role of individual and group interests or "sides" (Stone 1997) to theoretically explain not only how policy gets made, but also to practically address and improve the policymaking process itself.

Attention to individual and collective behavior in policymaking has contributed knowledge and understanding about how individuals use resources and power to influence policymaking within and across substantive policy arenas. As a result, we have amassed an impressive body of literature that illustrates how political institutions enable and constrain policymaking activities, how "multiple streams" (Kingdon 1995) converge to create policymaking opportunities, how actors process and use information (Baumgartner and Jones 1991), and how individuals unite around shared beliefs to form powerful "advocacy coalitions" (Sabatier 1987), "policy domains" (Van Horn, Baumer and Gormley 2001) or "policy regimes" (Jochim and May 2010) in efforts to address problematic issues and events, design solutions, and implement interventions.

However, because the focus of policy studies has traditionally been guided by the goal to create linear theories of policymaking or to improve policymaking in practice, realist studies have conceptualized policy problems as "objective conditions." This tendency inevitably obscured the ways in which policy problems are subjectively defined. This neglect has led interpretive or idealist scholars such as Edelman (1988), Fischer 2003, Hajer (1995), Roe (1994),

Schneider and Ingram (1993), Stone (1997), and Yanow (1996) to explore policymaking from an interpretive theoretical perspective.

Emerging as a response to perceived limitations of the dominant natural science approach for explaining social life, the organizing ontology in the interpretive frame is that meaning is socially constructed (Berger and Luckmann 1966). The works of Berger and Luckmann (1966) as well as Geertz (1973) were primary in developing the epistemological foundation that places analytic focus on language – words, symbols and stories – in the creation of knowledge about social and cultural phenomena. The central goal is to understand how people construct meaning as well as the consequences of meanings that are constructed. Interpretive perspectives view social phenomena such as policy problems as subjective and contingent; with meaning (as significance) accomplished through language.

Accordingly, interpretive scholars across disciplines have focused on language as providing evidence about how socially constructed subjective meanings become "objective facticities," which then become taken for granted as "reality" (Berger and Luckmann 1966). In particular, social problems and their policy responses have been conceptualized as objects that are socially constructed. Indeed, Blumer (1971) along with Spector and Kitsuse (2009 [1977]) argued that because policy problems are products of collective definition practices, regarding them as "objective conditions" is inherently flawed.

Over the decades since these and other scholars changed course, social constructionists have examined how conditions and events become problems and hence targets for social intervention (Best 2001; Fischer 2003; Loseke 2003; Miller and Holstein 1993; Schneider and Ingram 1993, 2007; Spector and Kitsuse 2009 [1977]; and Stone 1997). Scholars who investigate policy problems as subjective conditions have explored claims, claimsmakers and

claims making strategies with an effort to understand how some conditions and not others are accorded the status of social problems requiring intervention. Loseke (2003) refers to the activities of claims making as social problems work. The concept of social problems work leads scholars to investigate policymaking processes as the construction of problems inevitably leads to the construction of solutions. And arguably, solutions or policies have the potential to shape the wider social order though the allocation of benefits and burdens that enable or constrain the actions of individuals.

Critically, researchers across disciplines have observed that constructions of social problems and their policy responses take a narrative form. Claims to large audiences are packaged, according to Loseke (2003) as "formula stories." These are publicly circulating narratives that establish not only the type of problem being defined, but also the attribution of blame and responsibility. Similar arguments are offered by policy scholars including Kaplan (1993, 1986), Stone (1989), Fischer (2003), Roe (1994) and Bacon (2012). For example, Stone (1989) argues that policy problems are defined in "causal stories" that establish what or who caused the problem which simultaneously constructs liability and accountability. Hajer (1995:4) argues that policymaking depends on how problems are defined and are limited by structural constraints in terms of what can be thought or imagined as well as what stories can be told and who can tell them. More recently, Bacon (2012) suggests that the policy problems are articulated in "public political narratives" that are like causal stories in that they are somewhat patterned. As Bacon (2012:768) puts it, "Narrative has a predictive aspect, identifying likely policy responses to unexpected events."

But, how can narratives provide evidence of culture or widely held beliefs? So far, I have argued that the theoretical support for exploring narratives in public policy is located in

interpretive, constructivist studies of social problems. In the next section, I review literature that provides more detail as to how narratives are defined and how they are used in social research and in public policy. In sum, in the paragraphs that follow, I document the ways narratives have been analytically useful for understanding the most micro of social investigation such as individual sense making as well as the most macro social investigation such as collective world making.

Narratives in Social Life and Public Policy

Narratives are defined and described by many writers but are consistent with Bruner's (1991) description as accounts of events that occur over time. Narratives are both particular and general in that they can be about a unique experience, but reference a more general type of story or script. They are about people or characters engaged in events that have relevance for their worldviews, desires, and beliefs. They are composed as texts and are most often offered to account for a "breach in the canonical script" (p. 11). That is, narratives are warranted when a precipitating event brings about the need for explanation, justification, and rationalization. As Genette, Ben-Ari and McHale (1990) argue factual narratives (as opposed to fictional) are recognizable stories that are evaluated on the basis of their believability or coherence. Bruner (1991:13) points out narrative "verisimilitude" or plausibility depends on the extent to which the story "hangs together." This aspect brings into light the way that narratives are reflective as well as constitutive of cultural or widely shared beliefs. The reason any narrative makes sense to audience members is because they are constituted by collectively shared understandings.

Without shared understandings as scaffolding, stories do not make sense or hold together.

While writers may not agree as to what particular texts or accounts count as narratives, they generally concur that narratives are stories *about something* that happens *somewhere* and as

such can tell us something about our collectively shared understandings (Clandinin 2007). Narratives establish sequence in that they have a beginning, middle and an end. They are contextual, and establish temporality and spatiality in that narratives are about something that happens in a particular place and time. Because narratives are offered to explain a breach or an existential shock, stories are inherently normative. There is a moral to the story. Narratives establish types of characters (innocent, guilty, hero, coward, victim, villain) in that they are about events that happen to people, places, and things. Finally, stories build on each other or, as Bruner notes, are "accrual" (p. 18). When distributed and shared, they can become collective representations in the Durkheimian sense. It is this structural aspect of narrative that can help to explain why it may be difficult for political actors to change stories once they are taken-forgranted as meaningful explanations for something that has gone wrong (see Jackson 2011). Hence, narratives can be explored for how interests and ideas persist across time and become like a cultural structure in themselves (Alexander and Smith 1993). Indeed, Hill (2005) suggests that stories create and shape culture and meaning and likewise, culture and shared meanings create and shape stories.

Narratives in Social Life

Social scientists have documented the value of exploring narratives to understand social life. There are many articles and books that have presented comprehensive reviews of the use of narratives to investigate social life at multiple levels (Abell 2004, Brown, Gabriel and Gherardi 2009, Bruner 1987, 1991, 2010, Clandinin 2007, Ewick and Silbey 1995, Franzosi 1998, Loseke 2007, Maines 1993, Mitchell 1981, Ochs and Capps 1996, Polletta, Chen, Gardner and Motes 2011, Polkinghorne 1988). At the most micro level of analysis, narratives include personal stories that make sense of everyday experiences or breaches and situations in social life (Bruner

1991, 2010, Patterson and Renwick Monroe 1998). Individual narratives are analyzed to understand cognitive processes (Bruner 1991, Patterson and Renwick Monroe 1998, and Polkinghorne 1988) and the construction of selves and identities (Loseke 2007, Ochs and Capps 1996, Williams and Stickley 2011).

Narratives are also conceptualized as providing evidence of collective or group processes (Maines 1993, Ewick and Silbey 1995, and Polletta 1998). For example, social movement scholars explore how narratives emerge in spontaneous group protest (Benford 2002, Davis 2002, Polletta 1998, 2002) and how such narratives mobilize actors to participate in efforts to bring about social change. For example, Polletta (1998) analyzes narratives of 1960s student sitins in campus newspapers, speeches, and in organizational correspondence. She observes that while stories emerge from many tellers, a coherent and attractive collective identity of "student activist" was developed which compelled participation by other students.

Organizational scholars explore how stories shape and are shaped by the organizational and institutional contexts in which they are told (Brown, Gabriel and Gherardi 2009, Whittle, Mueller and Mangan 2009). For example, Whittle and her colleagues (2009) examine stories constructed in a routine work setting and find that in an organization characterized by uncertainty and change, individuals construct selves in terms that are morally valued to help them to navigate and respond to such uncertainty. This vein of narrative research reveals the influence of institutional rules and bureaucratic constraints on the types of stories that can be told and who can tell them (Ewick and Silbey 1995, 2003, Maines 1993, Polletta and Lee 2006, and Portillo 2010). Such narratives are conceptualized as "performances" (Law and Singleton 2000, Polletta et al. 2011) that are socially constructed and constrained by institutional expectations and regulations.

Regardless of the particular context in which stories are told or the purpose of their telling, all narratives can be viewed as "cultural productions" that "reflect or express existing ideologies" (Ewick and Silbey 1995: 212), (see also Bacon 2012, Campbell 2002, Hill 2005, Jacobs and Sobieraj 2007, Padamsee 2009, Polletta et al. 2011 and Steensland 2006). Widely circulating stories transmit "transcultural messages about the nature of a shared reality" (White 1981:2) that conveys expectations and explanations about "how the world works" (Stone 1999:137). For example Portillo (2010) interprets narratives of government officials and finds that the authority of women, minorities and younger individuals is questioned due to widely held beliefs regarding race, ethnicity, gender and age. These shared understandings are linked to the wider social order in that they shape opportunities and constraints for individuals and groups within governmental organizations.

Scholars refer to such widely circulating narratives as public or master narratives (Fisher 1984, Peelo 2005) and public discourses (Young 2009) or more recently political master narratives (Sandlin and Clark 2009), and public political narratives (Bacon 2012). For Alexander and Smith (1993:156) these narratives are a kind of "cultural structure."

People, groups and nations understand their progress through time in terms of stories, plots which have beginnings, middles, and ends, heroes and antiheroes, epiphanies and denouncements, dramatic, comic and tragic forms. This mythical dimension of even the most secular societies has been vastly underestimated in empirical social science and, until recently, in most cultural theory.

At the cultural level, scholars examine narratives for how they reveal "covert underlying presuppositions that organize the worlds in which speakers live" (Hill 2005:157). Theoretical concepts such as cultural or symbolic codes (Bourdieu 1977, Alexander and Smith 1993), cultural schemas (Quinn 2005), semiotic codes (Eco 1979), and emotion codes (Loseke 2009) and systems of signification (Barthes 1964) all refer to widely shared cultural meaning systems. These meaning systems are the basis to construct narratives read as coherent, believable and

important. Cultural codes provide empirical evidence that can help to explain the phenomenon of cultural resonance in contexts characterized by widely diverse audience members.

Documenting the existence and use of codes as shared meanings helps us to understand the influence of publicly circulating stories that resonate with broad and diverse audiences on individual and collective action. For example, observers show how President Bush encouraged audience support for war in response to the attacks of 9/11 by appealing to widely shared beliefs about human rights (Loseke 2009, Jackson 2011). The master narrative about the war on terror was successful because it resonates with collectively shared emotions of anger and vengeance (Loseke 2009) and deeply embedded notions of what Jackson (2011:398) refers to as American "innocence, heroism, unity, good versus evil, divine calling, universal values, justice and historical myths of the American roles in World War II, and the Cold War."

Therefore narratives in social life can be understood not only as particular accounts that shed light on cognitive processes and sense making at the individual level, but also as collective processes that shape organizational and institutional contexts. Finally, narratives are regarded as cultural texts that provide the scaffolding of sorts for understanding what is regarded as dramatic, funny, and tragic in society, what is valued and desired, as well as what is feared. It is this potential of narratives that informs my work. I depart from the tendency to view narratives as personal stories, with the implied analytical interest in how individual actors or groups create coherence, to seeing narratives as cultural artifacts that can be interpreted for how they reveal taken-for-granted beliefs that create and perpetuate social organization. As Bruner (2010:45) notes, "[Narrative] not only shapes our way of communicating with each other and our ways of experiencing the world, but it also gives form to what we imagine, to our sense of what is *possible*" (emphasis original). Thus, stories constitute worlds.

While I have summarized the use of narratives across levels of analysis, I do not mean to conflate micro with macro narrative research or suggest that personal stories *work* the same way as widely circulating cultural narratives. The analytical difference is between examining story*telling* versus stories *told*. In analyses of storytelling, analysts focus on how actors narrate and make sense of their lived experience. Whereas in analyses of stories told, the emphasis is on the images, words, and devices that are contained within stories that say something about the wider social context in which stories emerge. In short, narratives provide analytic utility for diverse research questions because they illuminate social processes such as sense making by individuals, groups and organizations as well as normative ideas, widely held beliefs, and takenfor-granted assumptions about how the world should work (Clandinin 2007). My emphasis is on stories told for their potential to reveal widely held beliefs that provide for narrative coherence.

In my view, this potential for narrative analysis (revealing taken-for-granted assumptions) has been underutilized in social science research. Yet, the support for this application of narrative analysis is strong. As Loseke (2007) argues, all narratives are reflexive such that cultural, collective, master, or public political narratives have the power to shape institutional, organizational and personal narratives (and reverse, the cultural are composed of organizational, institutional and individual narratives). And in the words of Ewick and Silbey (1995: 211), "Even the most personal of narratives rely on and invoke collective narratives." So, narratives can be explored not only for how they are accomplished by individuals and groups, but for how they are possible given the beliefs that underlie their telling.

Taken together, narrative scholars point to the potential to explore narratives (at all levels and in all contexts) for how they reveal widely held beliefs that shape the wider social order.

Given the analytic prospect that stories have for observing the dynamism between interests and ideas, practices and contexts, it is not surprising that scholars have turned to examining the importance and use of narratives in public policy.

Narratives in Public Policy

Policy narratives are particularly consequential in that they can become "hegemonic" in the maintenance of the wider social order (Ewick and Silbey 1995). Stone (1997) points out that the policymaking process (constructions of rules, laws, goals and standards) are made meaningful and visible in policy stories. Facts do not speak for themselves; they are, as Fischer (2003:169) notes, "embedded – explicitly or implicitly – in narrative accounts." Images of policy problems are defined and made sensible in policy narratives (Stone 1997, Hajer 1995, Fischer 2003). The importance of these stories is in their power to shape interventions aimed at ameliorating a condition deemed problematic as well as their power to shape worlds. The more general issue is that constructions of solutions are linked with constructions of problems. Importantly, what is constructed as the cause of the problem is what is constructed as the target for intervention. That is, when conditions are successfully constructed as problematic, policies to redress conditions are designed and implemented. These policies are consequential in that they provide for the distribution of scarce resources; they allocate benefits and burdens in the material world (Schneider and Ingram 1993, Stone 1997). While subjectively defined through social practices of representation, policies ultimately have very real consequences.

A focus on narratives in public policy can be viewed as a way to bridge the gap between what Gubrium and Holstein (1997:101) refer to as "representation and reality" (see also Fischer 2003). As Gubrium and Holstein (1997:101) argue, "Interpretation makes reality come alive for us; interpretive work at the border constitutes social reality, producing what we apprehend and

treat as meaningfully real." The interpretive position implies that policy problems are representations; stories that must first be interpreted in order to be responded to. This leads scholars to focus on the stories that are told about policy problems in order to understand how they are shaped by material interests as well as by subjective ideas.

In policy narratives, audience members are guided as to how to understand a condition, issue, or event as well as how to understand the characters within the condition, issue, or event. Policy stories are composed of rhetorical devices such as metaphors, numbers and typifications and synecdoche (Stone 1997) that seek to delineate what is problematic and what should be done about it. Problem definition and redress is accomplished in stories that construct settings, plots and characters and morals or prescriptions for what should be done to respond to the particular policy issue. Because the goal of policy narratives is often to define a problem and its resolution, they are inherently normative. Consequently, actors and acts are made sense of in moral terms. Actors are either deemed worthy of sympathy and help or of condemnation and punishment (Schneider and Ingram 1993). Similarly, acts are constructed in terms of whether they are appropriate or inappropriate. The criteria by which we assess problems and their solutions are not objectively known, but subjectively defined as Kaplan (1986) and others (Stallings 1995, Fischer 2003, Stone 1989) make clear.

In public political master narratives, there are recognizable types of settings characters and plots that dominate policymaking. For example, Stone (1997:138) argues that policy problems are defined according to predictable scripts. She describes the "story of decline" script which includes plots such as "stymied progress," or "change-is-only-an-illusion" and the second broad story line is the "story of helplessness and control." Summarily, the story of decline script and its variants begins with the assumption that things were going well until [insert problem]

happened and now policymakers must act to solve, resolve the problem. The story of helplessness and control proceeds according to the assumption that policy actors knew the situation was bad and perceived beyond control, but now we must act to control the problem. Within these storylines, problems are dramas with heroes, victims and villains constructed with rhetorical devices such as symbols, numbers, metaphors, and synecdoche or typification. Stone also asserts that "the horror story" (such as disaster narratives about environmental crises) is a common trope within policymaking that serves as the typification of a policy problem.

Stone's (1997:189-193) framework accounts for predictable causal explanations of policy problems in what she refers to as "causal stories." For example, if the problem is constructed as a result of purposeful human action with intended consequences the causal story is categorized as "intentional cause." An example of intentional cause may include stories of oppressors and their victims or conspiracies that involve deliberate attempts to hide information or important evidence which results in negative consequences. Problems constructed as caused by unguided human action with intended consequences are categorized as "mechanical cause" and may include scenarios in which human action (such as the design of a policy intervention) is guided, but the implementation of well-intentioned programs or protocols has negative consequences. As Stone summarizes, "problems might be understood as the result of humans acting like automatons" or human doing without thinking (1997:193).

Causal stories that construct the problem as unintended consequences of purposeful human action are labeled "inadvertent causes." An example includes stories of unforeseen side effects of medication intended as positive health interventions. Finally, causal stories construct policy problems as the result of unguided human action that leads to unintended consequences. These causal stories are categorized as "accidental" in Stone's framework and include examples

such as earthquakes, hurricanes, bad weather, and/or "machines that run amok." Some problems, notes Stone, cannot be organized according to her typology, but fall into another category that she refers to as "complex causes" of which there are three broad scripts: complex systems, institutional processes, and historical social patterns. Stone asserts that complex causal stories are constructed in order to deflect blame and responsibility, but this also complicates policy redress in that there are no clear individuals or organizations to hold accountable.

In short, political actors use types of stories to advance or protect their individual and group interests. Indeed, Stone argues that looking for cause provides a lens for the social construction of moral and fiscal responsibility by powerful actors. Analysts of policy narratives can observe how actors construct problems, causes and solutions while also observing how constructions serve to perpetuate social inequalities. But policy narratives offer even more analytical flexibility. Extending Stone, causal stories can be interpreted for how they reveal underlying normative beliefs that hold stories together. Indeed, policy narratives are, as Roe (1994:2) argues, "a force in themselves" in that they can become like a structure in the ways they are reified in debates about extreme events. In short, the content of stories told can be examined not only for how they illuminate strategies of policymakers, but also for how they reflect takenfor-granted normative ideas about how the world should be organized. Narrative studies in public policy teach us that contexts and settings, characters and plots are represented in moral terms that matter in policy discussions. These moral ideas illuminate what is collectively deemed right, good and valued versus wrong, bad and devalued.

Policy Narratives and Widely Held Beliefs

The works of several scholars point to the potential for policy narratives to illuminate links between subjective ideas and material interests by highlighting the widely held, normative

beliefs that hold stories together. That is, taken-for-granted assumptions provide the "scaffolding" that is necessary for stories to make sense. Reviewing studies of policy narratives shows how the social construction of setting in which problems are defined (Alkon and Traugot 2008, Jacobs and Sobieraj 2007), characters or types of individuals and organizations held responsible for the problem (Hartmann 2010, Schneider and Ingram 1993, Steensland 2006, Schutlz 2011), plots or types of problems become targets for policy interventions (Milligan and Binns 2007, Hartmann 2010, Smith 2005). Stories also reveal normative, taken-for-granted ideas about how the world should work.

Morally Valued Places

Alkon and Traugot's study (2008) shows that policy narratives in rural California debates about wine growing practices construct the moral worthiness attached to setting which lead to consequences in land use governance. While authors were focused on how actors used narratives or stories as resources to persuade audience members to support or refute the regulation of wine growing practices, their study can also be read for how debates reflect widely held beliefs about types of places that are morally valued. Indeed, scholars point out that while actors were in opposition about whether or not to regulate wine growing practices, they drew on similar "place meta narratives" to make their cases. Both sides extolled the virtue of rural landscapes as the rationale to protect lands from the threat of environmental consequences related to wine growing practices. Representations of rural California counties as aesthetically beautiful suggest a type of place that is morally worthy of protection from practices deemed problematic such as the application of insecticides to protect wine grapes. Descriptions of geographic places are linked with moral notions of what should or should not be done there. As authors argue (2008:98), "Meanings attributed to place have material effects." In this study,

authors illuminate widely held beliefs about the moral worthiness of rural landscapes.

Inevitably, attaching normative meanings to places simultaneously attaches normative meanings to the people who reside there.

Morally Valued People

The construction of characters in policy stories is culturally informative, too, in that policy narratives construct types of people or organizations as morally deserving or undeserving of policy benefits or burdens (Jacobs and Sobieraj 2007, Smith 2005, Schneider and Ingram 1993, Steensland 2006, Schultz 2011). In policy narratives, characters are often constructed in opposition. As the work of Jacobs and Sobieraj (2007:7) illustrates, narrative constructions of characters (us and them, protagonists and antagonists, victims, villains) are often constructed into "binary relationships of similarity and difference." The villain or cause of the problem is often constructed as extremely bad and beyond redemption. For examples, Schultz (2011) illustrates the way representations of types of people are linked to real punishments or rewards in policymaking. She examines policy narratives about child sex abuse and finds that characters are constructed as "monsters" unworthy of rehabilitation because they are inherently evil. This construction reflects widely held beliefs about types of people who should be punished rather than helped. It also reflects the tendency for narratives to reduce moral ambiguity with narrow constructions: people are either all good or all bad.

Hyperbolic constructions of people as threats that cause policy problems paint a clear picture about who we should fear as the works of Hartmann (2010) and Loseke (2009) show. Hartmann argues that extreme rhetoric dominates policymaking, perhaps because it motivates audience members to feel a particular way about types of people. In particular, in stories about climate change, "climate refugees" are constructed as an inevitable threat that merits extreme

interventions such as military defense. Constructions or representations reflect underlying assumptions about types of people who are believed to be threatening. As Hartmann argues, constructing climate refugees as part of the threat of climate change reveals "deep seated fears and stereotypes of the dark-skinned, over breeding, dangerous poor" (Hartman 2010:238). The way such representations are linked with reality is that extremely negative constructions of characters can lead to support for military intervention. Indeed, Loseke (2009) shows how character constructions in political speeches encourage audience members to regard "terrorists" as less than human. These studies reveal widely held beliefs about characters that we condemn and consider unworthy of sympathy, empathy, or compassion.

Morally Valued Problems

Some problems matter more than others. In the policymaking arena, the problems that matter the most are those that are visible and extreme. Scholars suggest that the policymaking process *begins* with the advent of "focusing events" (Kingdon 1995, Birkland 1998), or "triggering events" (Button 2010). According to Birkland (1998:54), a focusing event is defined as "sudden; relatively uncommon; can be reasonably defined as harmful or revealing the possibility of potentially greater future harms; has harms that are concentrated in a particular geographical area or community of interests; and that is known to policy makers and the public simultaneously." Using the examples such as earthquakes, hurricanes, oil spills and nuclear power events, Birkland examines the influence these events have on the mobilization of groups and policy communities. From a narrative perspective, stories about these events can also tell us about ourselves (Button 2010). Stories about focusing events are often told in hyperbolic language and characterized by "uncertainty, complexity and polarization" (Roe 1994). Characters and their actions are vividly polarized, plots are extreme and melodramatic. Tales are

moral and emotional. What is considered sacred and profane is vividly expressed (Smith 2005). The notion that focusing events are so pivotal reveals widely held beliefs about what we consider to be problematic. In short, we worry about problems we can see, that are constructed as sudden and shocking.

Some analysts suggest that shocking plotlines have come to dominate policymaking (Smith 2005, Stone 1997). For example, Smith (2005) argues that policy narratives are often told as "apocalyptic," or "crisis narratives." Like moral descriptions of places, people and problems, crisis narratives are invoked to mobilize audience members to support serious political intervention such as for going to war. Characters are represented in extremes – the super hero versus the super villain. There is little room for negotiation with problem definition; extreme circumstances call for extreme measures. Smith (2005:27) summarizes "In...apocalyptic narratives events are seen as unequivocally world-historical, and as in need of heroic interventions, for the object of struggle is the future destiny of the planet or civilization."

A potential consequence of the tendency in policy narratives to paint extreme pictures of policy problems is that tales can become "hegemonic" (Ewick and Silbey 1995). Milligan and Binns (2007) investigate narratives about resource use and land governance in Nigeria and argue that "crisis narratives" are so embedded in popular discourse that they constrain alternative explanations of what is or can be deemed problematic. Implicitly, representation of environmental catastrophe as caused by population growth and poor resource management by inhabitants inevitably constructs population growth as amoral and inhabitants as incompetent environmental stewards. Authors argue that the content of "crisis narratives" is largely unquestioned, but has real implications for the region in terms of policies to mitigate population growth and remediate "dying landscapes." Examining the content of crisis narratives reveals

widely held beliefs about what is problematic as well as who is responsible which ultimately links to and legitimizes policy responses that seek to control events, people and places.

The holism in the narrative approach effectively addresses what several writers (Alexander 2003; Benford 1997, 2002; Benford and Snow 2000; Béland 2009, Campbell 2002, Davis 2002; Del Rosso 2011; Hollander and Gordon 2006; Polletta 2002; Padamsee 2009; Steensland 2006 and Weinberg 2009) have called for – a need to capture social and *ideational* processes (Padamsee 2009) and contexts in which claimsmakers, claims, and claimsmaking strategies are embedded. These and other researchers guide scholars to leverage the analytic utility of narratives to account for causal links and mechanisms between the subjective production of policy problems and the socio-cultural contexts that make them possible.

Analyzing narratives in public policy has the potential for illuminating cultural influence in policymaking and also worldmaking. Representations of setting, plots and characters are inherently normative in policy discussions. Analysts can examine stories told in policymaking to comment on what is taken-for-granted and assumed to be *True* about what is right and wrong. Arguably, the affective and normative meanings that are attached to elements such as setting, characters, plots and resulting moral prescriptions illuminate widely held beliefs about what is understood as problematic and tragic; who is held responsible and worthy of benefits and/or burdens; and what should be done about it. Embedded in plots and storylines are images of characters who act to advance interests within particular settings along with inherent moral evaluations. Taken together, narrative analyses in public policy pave the way for the present study. In what follows, I outline my approach for systematically observing the intersection of what is deemed problematic and real with symbolic representations in order to comment on the

taken-for-granted, widely held beliefs that hold policy stories together. Highlighting beliefs embedded in policymaking can help us to understand their wider social influence more generally.

Policy and Culture: Linking Representations and Reality

Several observers have argued that interpretive studies of policy narratives fail to specify the mechanisms whereby culture works in shaping narratives of policy problems (Campbell 2002; Jackson 2011; Jacobs and Sobieraj 2007; Padamsee 2009; Polletta et al. 2011; Shanahan, Jones and McBeth 2011; Steensland 2006; and Stryker and Wald 2009). In particular, over emphasizing the influence of ideas *or* interests in policy narratives leaves questions about how cultural meaning systems and widely held beliefs (which incorporate both ideas *and* interests) work in policymaking. In an attempt to bridge the gap between theoretical divides, I argue that by considering policy narratives as culturally informative, analysts can systematically investigate stories told about problematic events in policy arenas to grasp the underlying beliefs and assumptions that hold stories together. In so doing, we can articulate some of the ways culture works in policymaking.

There are several books and articles that document ways to conduct narrative analysis within public policy (Fischer 2003, Roe 1994, Stone 1997, Rideout 2013). Of particular relevance to the present work is the work of Deborah Stone (1997). With an emphasis on narrative structures (particularly settings, characters, plots, and morals), Stone (1997) establishes a framework for examining narratives in public policy. First, she shows how policy goals (values such as equity, efficiency, security, and liberty) do not conform to a simple and straightforward rule but are ambiguously defined. Then, she delineates how policy issues and decisions are contingent as well and contends that there is no "universal technical language of problem

definition" (Stone 1997:134). Rather, policy problems are represented as stories that specify interests, causes and decisions through literary devices and rhetorical strategies.

Moreover, policy stories reflect the taken-for-granted ideas that constitute the cultural context in which they are told. Inevitably, policy stories are vehicles for moral action – they are compelling and persuasive (Stone 1997, Fischer 2003) and often manifest in the distribution of benefits and burdens in society. Thus from an analytical perspective, scholars are encouraged to focus on how policy narratives delineate taken-for-granted beliefs about policy problems in their explicit descriptions of context and setting, characters, plots, and moral prescriptions for redress of policy problems. Scholars are encouraged to document cultural codes (Alexander and Smith 1993) or "sacred values" and "world images" (Weber 1978) that can be understood as widely held normative beliefs about what is right or wrong, good or bad, beautiful or ugly, innocent or guilty. These codes are illuminated in policy stories that are designed to persuade audience members to support political action.

"Disastrous" Oil Spills as Cultural Objects

"Disasters" are viewed as catalysts that initiate storytelling in policymaking arenas.

Kingdon (1995) refers to such events as opening a "policy window" which can be understood as the opportunity to *make right* what has been *deemed wrong*. That is, studies show that when events such as oil spills (Freudenburg and Gramling 2011) earthquakes (Stallings 1995), and hurricanes (Jones-DeWeever and Hartmann 2006, Tierney 2008) are constructed as large, damaging and deadly, people and policymakers are motivated to care about the problem (Button 2010, Beamish 2002, Loseke 2003, Hajer 1995 and Roe 1994). Accordingly, many students of disasters have explored narratives of disaster to understand what to do about them, how individuals and groups cope, or recover from them (Chamlee-Wright and Storr 2011, Tuohy and

Stephens 2012, Yaro, Jones and Todorovich and Roneros 2009). Such work has been productive for understanding individual and group resilience to disasters and for revealing the consequences of constructing an event as disastrous only when it is large, visible and deadly.

Yet, many scholars criticize the tendency to study disasters as isolated events to which individuals and groups respond, rather than examining the *processes* of constructing an event as a disaster and the implications (Tierney 2007, Erikson 1976, and Jones and Murphy 2009). Scholars argue that a single issue focus with attention to how people respond whether individually or politically obscures the vast social inequalities that contribute to the conditions that lead to disaster in the first place. I follow these works that suggest focusing on disastrous events can be culturally informative. In my view, understanding the influence of culture in policymaking and in social life more generally can shed light on the ways our taken-for-granted assumptions perpetuate and maintain social inequalities that are exacerbated when "disasters" happen.

What is needed is to conceptualize disasters as "cultural objects" (Schudson 1989, Griswold 2013) that individuals and groups make sense of through processes of storytelling. Conceptualizing oil spills as cultural objects allows analysts to account not only for the subjective processes of sense making and representation, but also the ways in which representations become embedded in real social and institutional practices. Stories about oil spills can tell us something about ourselves (Button 2010). As Fischer (2003:167) argues, narrativism paves a path between "realism and constructionism." As a cultural object, an extreme, tragic event can be understood as both real and symbolic (Schudson 1989). Indeed, Swidler (1986) argues, it is in moments of crisis that we can observe the influence of culture most vividly. Tragic events or phenomenological shocks create what Swidler (1986) calls

"unsettled times" when the meaning of the world has changed and audience members seek understanding. It is during times of crisis that members of the audience seek out explanations to get re-oriented (Loseke 2003). Thus, I conceptualize oil spills as focusing events that initiate storytelling in policy arenas, and as cultural objects that tell us something about the taken-forgranted.

Oil spills happen. They are real events that create real harm and real destruction for individuals, groups, organizations, wildlife, and our natural and built environments. And as many scholars have shown, oil spills provide a window to see the influence of material interests on policy making as well as taken for granted moral ideas about right and wrong (Button 2010, Molotch 1970, Gramling and Freudenberg 2012, Ladd 2012). Some scholars explore oil spills as objective conditions in order to reveal the way they are linked with negative consequences across several dimensions including social disparities (Ritchie, Gill and Farnham 2013; Ritchie 2012; Arata, Picou, Johnson, and McNally 2000, Picou and Gill 1996; Dyer, Gill, and Picou 1992) individual mental health issues (Palinkas, Downs, Petterson and Russell 1993; Lee and Blanchard 2012; Sabucedo, Arce, Senra, Seone and Vazquez 2010; and Osofsky, Osofsky, Wells and Weems 2014), community cohesion (Rodin, Downs, Petterson and Russell 1992) economic malaise (Fyke and Buzzanell 2013; Suris-Reguerio, Garza-Gil, and Varela-Lafuente 2007; Cohen, 1993), and environmental destruction (Omohundro 1982; Merchant 1990).

These analyses often proceed from a critical perspective to show how oil spills result from willed human action and contribute to and exacerbate social inequalities and environmental injustices. As such, studies regard the oil spill event as analytically useful in revealing the way powerful interests of capitalists, oil producers, and governments exploit natural resources that inevitably create harmful consequences for individuals, communities and environments. For

example, Ritchie (2012) explores the 1989 Exxon Valdez oil spill to highlight the way disasters are linked with individual stress and collective trauma. She finds that disasters create long term stress for individuals that lead to losses in social connections that weaken social bonds with others. Arata et al (2000), on the other hand, explores individual responses to oil spills in order to document ways that individuals cope with oil spill disasters to identify psychological factors that are important to disaster recovery.

Other writers look at oil spill events to determine what caused the spill or disaster and who was deemed responsible (Thompson 2014; Reader and O'Connor 2014; Blanchard et al 2014; Gramling and Freudenburg 1992; Furger and Brulle 1997). These studies have documented the ways that organizational incompetence, inadequate perceptions of risk, or failures to act lead to disasters such as oil spills and what can be done to mitigate or prevent them from happening in the future. For example Thompson (2014) compares governmental responses to three different disasters (9/11 terrorist attacks, 2010 BP oil spill and the financial collapse of 2008) to argue that individual actions and organizational structural defects are responsible for the failures of government or what he refers to as the "problem of many hands." With his study, he proposes a way for organizational process designers to structure complex tasks in such a way so as to tie disastrous failures to particular individual actions thereby providing for the assignment of individual blame. Similarly Reader and O'Connor (2014) examine the commission report on the BP oil spill to identify particular behaviors that brought about the spill with a goal to eliminate missteps that lead to mishaps.

While studies of oil spills as objective conditions foreground the influence of material interests and power on policymaking, other studies highlight the subjective representations of oil spills to comment on the use of images, words and ideas that depict oil spills as problematic

conditions (Beamish 2000, Bernal 2011, Button 2010, Clayton, Koehn and Grover 2013, Daley and O'Neill 1991, Freudenberg and Gramling 2011, Ladd 2012, Molotch and Lester 1975, Morse 2012, Olien and Olien 2000, Sellnow 1993). These scholars interrogate the representations and meanings in oil spills to comment on social implications of subjective definitions and representations.

For example, Morse (2012) explores representations of oil spills between 1967 and 1977 in national newspapers and magazines to highlight the images used to represent the oil spill problem. She argues that the visual narrative about oil in America shifted from stories of oil's natural abundance and power to oil as evil and threatening to human life and natural environment. In earlier representations, oil stories were accompanied by images of fires and explosions that she interpreted as conveying power and force. In latter representations, she notes the consistent use of oil-soaked birds in narratives told which she interprets as a visible expression of oil-as-threat to human and natural life.

Similarly Ladd (2012:105) argues that disasters such as the Deepwater Horizon oil spill represents a Pandora's Box morality tale that reveals the ills of corporate power and our shared dependence on fossil fuels. And others examine the construction of oil spills to argue that hyperbolic focus on visible spills reflects widely shared unease or what Button (2010) refers to as the "culture of uncertainty" or ignorance as the work of Beamish (2002) suggests. In contrast with studies that construct oil spills as symbolic of corporate power and oil dependence, the work of historians Olien and Olien (2000) situates the oil industry as unfairly represented in media constructions. They argue that the persistent muckraking of oil producers has instantiated the ideology that oil companies are the ultimate villain in energy policy and debates.

Interestingly, studies of oil spills from both orientations (objective and subjective) arrive at similar conclusions. They tend to highlight what Sassatelli (2007) refers to as the "power of the producer" or the power of the powerful over the weakness of the weak. While it is important to call attention to the processes that support and instantiate powerful interests especially when trying to grapple with persistent social inequalities, there remain questions about the preamble that must be made visible if we are to understand why the oil spill story in particular, or the disaster story in general seems to dominate the policymaking arena. From the first major offshore oil spill in America (Santa Barbara oil spill 1969 to the most recent offshore disaster (Deepwater Horizon oil spill 2010), it is de ja vu all over again (Ladd 2012).

Oil spill studies that tend to emphasize the hegemonic tale of how dominant interests run amok obscures the ways that producers *and* consumers, problems *and* practices are embedded in complex socio-cultural environments. I take inspiration from previous studies to pursue an investigation that situates the oil spill as a triggering event or cultural object that is made sense of in policy narratives to illuminate what is taken-for-granted in objective and subjective explanations. My analytical interest is not in oil spills as objectively real events or oil spills as symbolic representations of power and inequality, but in the way *stories told about oil spills* say something about our cultural, widely held beliefs that underlie our social organization.

With my work, I shift the analytic emphasis from oil spill constructions and how they are linked with power and inequality to oil spill stories and how they reveal taken-for-granted assumptions about what and/or who is valuable and important; what and who should be protected; what and who should be held accountable in the wake of calamity. By documenting widely held beliefs, we can gain insight into the conditions that permit or support the practices that lead to environmental catastrophes that become subject to policymaking with implications

for the wider social world. A more nuanced analysis of policy narratives about oil spills moves knowledge about oil spills from the familiar tale of them against us, to highlighting the ways we all may be complicit in the problem.

In summary, oil spills are regarded as analytically useful in exploring power dynamics in policymaking. The focus has been on oil spills as evidence of problems in governmental intervention, impacts on individuals (psychological impacts, social impacts). The tendency has been to see oil spills as evidence of powerful individuals exploiting the less powerful. Scholars document the particular behaviors and actions of governments, industry actors, media and activists for how facts are obscured to maintain the power of producers. Most of all, analysts see oil spill as catalyst, a problem that causes individual, social and environmental impacts and that they are reflective of the obdurate, unyielding power structure.

Informed by work in disaster literatures, I conceptualize oil spills as stories that are by and large considered triggering events that cause, perpetuate and/or exacerbate social inequalities (Clarke 2006, Steinberg 2006, Tierney, Bevc and Kuligowski 2006, Tierney 2007). But my emphasis is to regard oil spills and *stories about them* as cultural artifacts that can shed light on widely held beliefs, taken-for-granted assumptions that perpetuate social stratification practices and processes; widely held beliefs that are shared not only by corporations, scientists, media, activists and governments, but by the lay public. You and me. In short, this is the goal of my dissertation -- to systematically observe and document the way policy stories told about oil spills can elucidate what is taken-for-granted. In the end, I show, that it is the taken-for-granted assumptions evident in policymaking narratives about oil spills that contribute to persistent social and natural inequalities writ large. In this way, we can see how representations are linked with reality and offer an empirically-grounded account of the power of widely held beliefs.

Conclusion

In the beginning of this chapter, I sought to lay the foundation for using narrative analysis to explore the cultural influence on policymaking. I begin with a summary of literature that supports examining the social constructions of policy problems in general. Many decades of scholarship endorse the rationale for observing linguistic constructions in sense making about problematic events in many domains including policymaking. Then, I turn my focus to the analytical potential for policy narrative constructions in particular for the way they illuminate the influence of contexts, characters, plots, and morals on the definitions and descriptions of problematic events that trigger policymaking processes. In the end, I highlight the prospects for examining narratives about a particular type of event – the oil spill – for how stories can reveal the cultural influence of widely held beliefs on policymaking.

The understanding of policymaking processes has been advanced by a focus on policy problems as objective conditions as well as subjective definitions. Yet, studies, from seemingly divergent theoretical and methodological camps, tend to highlight the influence of powerful interests or the power of the producer in policymaking neglecting the way ideas and interests are linked by widely held cultural beliefs about the way the world should work. The time has come for scholarship to move beyond emphasis on *either* interests *or* ideas to *both* interests *and* ideas. In my view, recent calls for bridging the gap between realist and idealist conceptions of social problems and their policy interventions is made possible by examining policy narratives about real events such as oil spills. Such conceptualization contributes insight about how cultural contexts influence the stories that can and cannot be told about oil spills. Conceptualizing oil spills as culturally informative leads to investigating how they are rendered meaningful in policy narratives. We can observe not only how audience members are persuaded to think about

problems and the people affected by them, but how we are encouraged to feel. Accordingly, we can observe the consequences of stories in that they designate what is plausible as well as what is possible in terms of policymaking and by extension world making (Griswold 2013).

By placing analytic emphasis on oil spills as culturally informative triggering events, analysts can detail the ways stories about the event can reveal the interdependent linkages between subjective ideas and material interests and contribute explanation about the durability or persistence of cultural beliefs as they relate to policymaking in general, oil extraction and consumption practices in particular. Documenting the ways policy narratives delineate social contexts/settings, characters, plotlines and implicit moral evaluations allows analysts to illuminate the ways normative and affective meanings work as cultural mechanisms that influence what is deemed problematic in society. In sum, the flexibility that a narrative analysis provides is accounting not only for the subjective processes of representation, but material consequences embedded in the "real" social world. In the next chapter, I detail my methodological approach for examining policy narratives about oil spills.

CHAPTER THREE: METHODOLOGY

So far I have established the mandate for investigating culture in policymaking and have laid the theoretical foundation for how to accomplish this with narrative analysis. This chapter focuses on the particular methods and data I used to conduct this study. First I will briefly summarize the methodological concerns regarding the use of narratives in interpretive studies. Then I will respond to these concerns by specifying how I used narrative analysis to illuminate cultural influences in policymaking – a method informed by what can be called a narrative comparative approach (Abell 1987, 1984, 2001). I depart from Abell's focus on comparing narratives to explain action, however, and argue in support of narratives as providing evidence of shared beliefs and values. First, I justify the selection of particular oil spills as cultural objects that are storied in policy narratives and then detail the particular stories about oil spills contained in oral testimony in United States Senate congressional hearings. Finally, I will outline my inductive analytical approach that enabled me to observe and document taken-for-granted assumptions that underlie policy narratives about oil spills.

Interpreting Policy Narratives

While gaining increasing attention among policy analysts, interpretive methods for analyzing cultural influences within policy narratives are not well articulated (Atkinson and Delamont 2006, Sabatier 2000, Jones and McBeth 2010). Notable exceptions are found in Quinn's (2005) edited collection of methods that delineate ways for observing culture in narratives. Techniques outlined in this collection include analyzing metaphors, key words (Quinn 2005), actions of characters and plots (Mathews 2005), and attending to "gaps, clashes,

and silences" within narratives (Hill 2005). Additionally, Loseke's (2012) work specifies ways for documenting the social context, explicit references to characters, symbolic codes and moral evaluations.

Likewise, Smith (2005) and Abell (2009) lead scholars to employ comparative analysis that bridges realist and idealist approaches by looking for what can be regarded as social "laws" or causal mechanisms that can be observed with the interpretation of texts about similar cases across time. As Abell (2009:47) argues, narrative analyses of a small number of cases can be simplified "by collapsing their detail" according to narrative structures. To get at causal explanation or theoretical generalizations, analysts can ask: "Is there a common story (net of inessential detail) to be found in two or more narratives?" (Abell 2009:47).

By guiding analysts to perform close and multiple readings, to document explicit context and character references, and to identify symbolic cultural codes, scholars point to a systematic, comparative and inductive approach for narrative analysis in policy studies. Together these works speak to the need to foster precision that Atkinson and Delamont (2006) have argued is lacking in qualitative analyses of narratives. My unique contribution to sociological methodology is to use an interpretive, comparative narrative analysis to illuminate normative, taken-for-granted assumptions in policy stories that also can shed light on their causal influence in social life more generally. In what follows, I discuss how I drew upon techniques in narrative analysis to systematically analyze policy narratives to see "culture" or "the covert underlying presuppositions that organize the worlds in which speakers live" (Hill 2005:157).

Narrative analyses in public policy have been critiqued for their lack of rigor and systematic empirical study (Atkinson and Delamont 2006, Jones and McBeth 2010, Sabatier 2000). As Jones and McBeth (2006:330-1) note:

[N]arrative remains a mysterious and elusive concept in policy theory, too associated with literary theory, too superfluous to underpin theory building and too nebulous to facilitate the empirical investigation of policy processes and outcomes.

Atkinson and Delamont (2006) also imply that narrative analyses in social science lack precision and often fail to acknowledge the particular cultural, institutional and social contexts in which stories are told. Finally, narrative studies are criticized for their lack of scope and generalizability due to the perceived "small N" limitations in social research (Abell 2009). That is, a small number of cases or stories are viewed as providing exploratory rather than explanatory or causal evidence (Lieberson 1991). I respond to these concerns by specifying an interpretive approach to narrative analysis in public policy that is systematic and rigorous, attentive to context, and is able to arrive at "big conclusions" regarding the causal influence of culture or widely held beliefs on social processes (Lieberson 1991).

In short, my challenge was to specify *how* narrative analysis can illustrate the links between stories and cultural beliefs. To accomplish the call for rigor, I began by selecting culturally significant events (oil spills) that are storied in public policy as my data for analysis using a systematic approach. To attend to the importance of context, I focused on particular stories about oil spills – oral testimony in United States Senate Congressional hearings. And to address the perceived limitations of qualitative, inductive analyses for arriving at "big conclusions," I incorporated comparative research techniques (Smith 2005, Abell 2009, Weber 1978). I proceeded on the assumption that a small N of policy narratives can be closely read to capture "thick descriptions" (Geertz 1973) of oil spill events as storied in congressional hearings to illuminate the links between interests and ideas.

I will now discuss the practical steps that I followed to accomplish the task of isolating my data for analysis. First I outline how I selected my topic of study – oil spills. Then I talk

about how I defined the sampling frame from which I selected particular stories for analysis – oral testimony in U.S. Senate Congressional Hearings. Finally, I specify how I arrived at the particular oil spill hearings that constitute my narrative data. After I established my topic, site of research and data, I detail my analytical approach. In brief, I pursued a three-pronged strategy:

1) Narrative analysis of each spill; 2) comparisons; and 3) examining links between representations and "realities."

Research Topic: Oil Spills as Cultural Objects

Because I wanted to explore the role of culture in policymaking, I followed Swidler's (1986) argument that culture is most visible when something goes wrong. According to Swidler, "unsettled times" are when something happens in the world that compels actors to re-orient themselves to the world. I conceptualized unsettled times to be akin to the Schutzian idea of "shock to the lifeworld" that compels actors to make sense of anomalies in everyday life. As I previously discussed in chapter two, within studies of public policy, shocks or unsettled times are conceptualized as "focusing events," (Kingdon 1995), "triggering events," (Birkland 1998), or "exogenous shocks" (Sabatier 1998) that are defined as "sudden, attention-grabbing events" that trigger policy discussions and have the potential to bring about policy change (Kingdon 1995, Birkland 1998:53, Sabatier and Jenkins-Smith 1993). Events such as natural or man-made disasters, financial crises, planes flying into sky scrapers are all examples of focusing events.

From a policy studies perspective, focusing events are often explored to understand policymaking processes to document the influence of individual behavior, social structures and institutional practices, social norms and ideas, and discourses (Schmidt 2010). From a narrative perspective, focusing events can be understood as a canonical breach that requires explanation and sense making (Bruner 1991). From a cultural sociological perspective focusing events can

be understood as cultural objects that are analytically useful for exploring links between culture and society (Griswold 2013).

To determine what objects would be the focus of my study, I referred to Weber's (1978:23) concept of "ideal type." Weber advised sociologists to be systematic in the selection of phenomena to provide "conceptual clarity" that enables the analyst to offer approximate explanations of said phenomenon. So, my selection of an historical phenomenon had to be something that was culturally significant. At the time I was developing my dissertation proposal, the BP Oil Spill had just happened. Following Weber (1978), oil spills are historical phenomena. Oil spills have occurred since actors in society coordinated their action to discover, extract, produce, and distribute the resource for energy production across the globe. Weber's (1978:23) work supports the notion that oil spills are "rational" concepts in that they can be considered "concrete realities" that are of importance to historians and sociologists alike. Oil spills are phenomena that I can "carve out of social life" to approximate their "internal coherence." So, I centered on oil spills as my cultural object and then proceeded systematically to select the particular research site in which meaning making about oil spills was observable.

Research Site: Congressional Hearings as Sense Making Venues

As my interest is in policymaking as a social process of sense making, I turned my attention to congressional hearings as the site in which actors attempt to explain the causes and consequences of oil spill events. Policy scholars agree that congressional hearings are important arenas for shaping knowledge about focusing events (Birkland 1998, Burstein and Hirsch 2007, Burstein and Bricher 1997, Diermeier and Feddersen 2000). As Birkland (1998:59) argues "The Congress is a good institutional venue to study as its activities are consistently well documented and because at least some of its hundreds of members, motivated by desires to make good policy

or by constituency pressure, are likely to react to focusing events." Hearings are also a productive research site for investigating cultural influence on policymaking as it is in congressional hearings that policy issues and events are imbued with shared cultural significance as the works of many scholars make clear (Birkland 2006, Burstein 1991, Chock 1991, Chomsky 1999[1988], Del Sesto 1980, Fisher, Leifeld and Iwaki 2013, Fischer and Forester 1993, Gamson and Lasch 1983, Gamson and Modigliani 1987, Guetzkow 2010, Jones and Baumgartner 2004, Oleszek 1989, Naples 1997, Sandel 2013, Sims and Brinkmann 2003).

Oleszek (1989) points out that hearings are considered preliminary to the legislative process. They are "fact-finding" instruments:

Witnesses from the executive branch, concerned members of Congress, interest group spokesmen, academic experts, and knowledgeable citizens appear before the committee to give their opinions as to the merits or pitfalls of a given piece of legislation (Oleszek 1989:97).

According to Oleszek, hearings are rule bound sites in that witnesses are expected to provide written texts of their oral testimony prior to the hearing so that committee members have an opportunity to review what will be discussed and can prepare questions. Legislators question witnesses according to seniority. There are also time constraints that can limit the dialogue between witnesses and elected officials. However, committees have some latitude to make adjustments to the protocols and can structure hearings to provide a forum for diverse views on issues or events under investigation.

Given that congressional hearings are situated within the institutional context of the legislature, it is not surprising that scholars have isolated them for rhetorical, constructionist and narrative analysis. Decades ago, Gamson and Lasch (1983) suggested that policymaking occurred "in a particular symbolic environment or culture." They sought to explore the cultural influence of policymaking by analyzing "symbolic devices" in congressional rhetoric about

social welfare. Similarly, Naples (1997) analyzed congressional hearing testimony on welfare reform and argued that political support for reform was influenced by a shared cultural understanding about the ills of government "dependency." Other researchers note the evidentiary value in congressional hearing testimony for how testimony constructs cultural aspects such as "ideological networks" (Fisher, Leifeld and Iwaki 2013), "ideological assumptions" (Fischer and Forester 1993), and "moral reasoning" (Sandel 2013).

As Del Sesto's (1980) work suggests, congressional hearings are akin to "political stages" in which issues are represented in accordance with what is resonant or acceptable by the wider voting public. That hearing testimony must resonate with audience members suggests that it (testimony) can be analyzed for widely shared meanings and belief systems, or what Alexander and Smith (1993) refer to as cultural or symbolic codes. Congressional testimony is replete with rhetorical devices that are used to make sense of phenomenal events such as oil spills. Therefore, I focused my analysis of culture in policymaking by specifying congressional hearings as my research site.

It also is important to specify and justify *which* particular oil spill hearings I explored.

First, there are several types of congressional hearings: legislative, oversight, confirmation and investigative (ProQuest Library Guide). Legislative hearings focus attention on legislative proposals; they evaluate a proposed bill and report back to the House or Senate for consideration. Oversight hearings concern the implementation of legislation and include appropriation hearings that provide detailed analyses regarding the Federal Government budget allocations.

Confirmation hearings are specific to the Senate and focus on the assessment of individuals who have been nominated by the President for government service. Of particular relevance to my work are investigative hearings which are held to investigate events and cover issues in which

public officials, and/or private individuals are accused of wrongdoing which may eventuate in legislative acts, and/or fines and penalties.

Second, there are published and non-published hearings. Published hearings are considered the "official record" of committee hearings proceedings. Because the law does not require that hearings be published, some hearings are not available for public review. The decision to publish a hearing is up to the particular committee or subcommittee. Third, the rules and procedures that shape the conduct of hearings differ according to the chamber in which hearings are held: House vs. Senate. Congressional scholar Oleszek (1989:24) points out the major differences between the chambers according to size, terms in office, procedural restraints, constituency, media coverage, power, prestige and partisanship. For example, the Senate is smaller than the House. Senators serve longer terms in office; have fewer procedural restraints and a broader constituency. The Senate is less partisan than the House, is more prestigious and receives more media attention. In Senate hearings, members have more freedom to express themselves compared to House hearings.

Considering the variability in the ways that Senate hearings are conducted, there are potential limitations with respect to the data that I analyzed for my project. Nevertheless, my project was not an investigation of how Congress conducts hearings, but on how dialogue within hearings can illuminate taken-for-granted assumptions about our social world. As Oleszek (1989) asserts, hearings (limitations notwithstanding) are an important part of policymaking. "They [hearings] provide a permanent public record of the position of committee members and the various interested groups on a legislative proposal" (1989:99).

With the support of abovementioned scholars, I considered congressional hearings to be a productive research site to see the dynamic interaction between interests and ideas in that

witnesses who are invited to hearings provide testimony that is influenced by particular interests (political, industrial, environmental, academic, lay individual, etc.). Further, the testimony itself is constituted of symbolic ideas that I explored as representations of interests. My next challenge was to specify the particular oil spill hearings and testimony that would constitute my data.

Sampling Frame: Congressional Hearings about Oil Spills

Because my research is inductive and qualitative, I had to isolate particular stories about particular spills. First I proceeded systematically to identify particular oil spill events that were culturally significant. Accordingly, I followed scholars such as Birkland (1998), Jones and Baumgartner (2004), Johnson et al. (2010), King et al. (2007) and Pettinicchio (2013) who suggest that congressional attention to the issue indicates its importance. That is, the quantity or *number* of congressional hearings about a particular issue or event is indicative of its importance or significance not only to Congress, but to the public as well.

To determine which oil spills garnered the most congressional attention, I began with a key word search of the ProQuest congressional database on the topic of "oil spills" to create my sampling frame. This search yielded a total of 491 Senate and House hearings that occurred between February 15, 1922 and September 3, 2012. I entered each hearing into an excel spreadsheet and captured the title of the hearing, the type of document (whether published, or unpublished), the date, the number of pages, and the summary of what was discussed in the hearing. All hearings totaled approximately 200,000 pages which included oral testimony, written statements, supporting documents, articles, letters, etc.

There are different views about the amount of data to analyze from a narrative perspective. Van Eeten (2006) points out that reliance on specific policy narratives can limit the

generalizability of conclusions, but also suggests that this can be addressed by aggregating texts to provide a larger sample of views to be interpreted. He further argues that highly aggregated texts make close readings difficult leading to somewhat thin analyses. The requirement that interpretive questions centering on meaning require a thick description meant that I needed to drastically reduce these data to enable close readings (particular policy narratives) that could also provide for generalizability of conclusions (aggregated across time).

I began by removing unpublished hearings because I wanted to analyze hearings that were considered the "official record" – published hearings that were made available for public review (Sevetson 2005). Further, I eliminated hearings that were focused on appropriations or budgetary matters because as Birkland (1998:59) points out, "[Appropriation hearings] tend to cover routine budget matters and [we] hear from a very limited range of witnesses compared with other…hearings." After appropriation hearings were removed, 378 remained.

With my frame narrowed to 378 hearings about oil spills, I then proceeded to isolate particular oil spill events to analyze as culturally informative phenomena. To accomplish this, I aggregated hearings by year in my excel spreadsheet and noted spikes in hearing activity that corresponded with particular named oil spills: Santa Barbara Oil Spill 1969, Campeche Oil Spill 1989, Exxon Valdez Oil Spill 1989, and Deepwater Horizon or BP Oil Spill 2010. (See Figure 1).

It is important to note that while my sampling frame emerged from a key word search of "oil spills" not all hearings were specific to oil spills as focusing events. For example, many hearings were legislative evaluations of bills proposed to control or prevent water pollution due to vessel traffic in navigable waters. Furthermore, not all hearings that constituted the spikes in hearing activity are event-specific. While many hearings that occurred between 1969 and 1970

discussed the Santa Barbara oil spill, there were some hearings focused on miscellaneous issues within oceanography, or the nation's estuaries and port and harbor safety. That said, I regarded the spikes in hearing activity about "oil spills" which also included hearings about oil-spill-related issues to be a strong proxy for issue importance, or event focus.

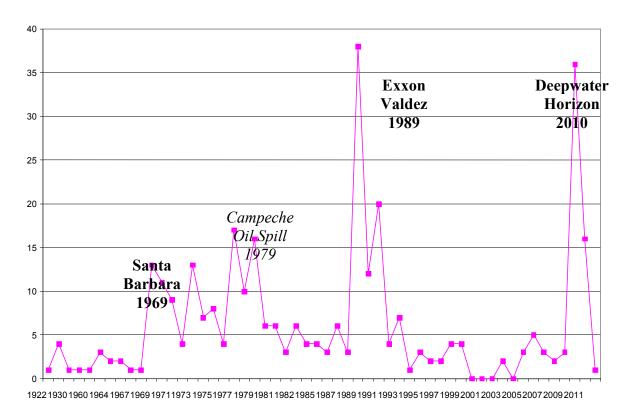


Figure 1: Number of published, non-appropriations hearings about oil spills by year.

Because I wanted to explore stories about oil spill events within the United States, cultural context, I eliminated the Campeche oil spill event (as it technically occurred in the Mexican jurisdiction of the Gulf of Mexico). Further, while there were several Senate and House hearings for each oil spill event, I decided to limit my selection to Senate hearings given the Senate's broader representation, prestige, visibility, and freedom of expression (Oleszek 1989).

Congressional scholar Oleszek (1989) summarizes key similarities and differences between the chambers of the legislative branch. He points out that both chambers have equal

power and responsibility. But that key differences include size (House is much larger than then Senate in membership), constituencies (senators have broader representation) and length of terms in office (House members serve shorter terms). Oleszek suggests that these key differences impose constraints and opportunities on members. Because of the larger size of the House, members are more constrained by procedural rules whereas senators have more freedom to express themselves as individuals. Therefore, I elected to focus on Senate hearings based on theoretical assumptions of greater freedom of expression and political prestige.

With so many potential hearings to choose from, I decided to apply a rule that would systematize my selection of particular hearings. Following theoretical notions about narrative accrual that suggest that narrative explanations build on each other over time, I reasoned that the first hearing to investigate each event sets the stage for subsequent explanations (Bruner 1991). However, considering Weber's (1978) caution about artificially bracketing aspects of social life, I acknowledge the all events have potentially, multiple narrative antecedents and getting the "first story" about a particular spill is perhaps, impossible.

Notwithstanding potential limitations, I selected the first Senate hearing (by date) that specified as its purpose to investigate a particular oil spill event. (See Table 1). By narrowing my scope, I arrived at a total of 403 pages of oral testimony: Santa Barbara 1969 (206 pages), Exxon Valdez 1989 (92 pages) and Deepwater Horizon 2010 (105 pages). Taking stories of similar events together and aggregating across time enabled me to observe as Bruner explains "culture," "history," "tradition," or what I specify as widely held and shared beliefs about the world.

It is important to mention that the Santa Barbara 1969 hearing differs from the others in that it is not referenced in the title of the hearing in table 1. The Santa Barbara oil spill became

the focus of a legislative hearing already scheduled to evaluate bills to amend the Federal Water Pollution Control Act. The spill happened on January 28, 1969 and was still spilling when "Water Pollution – 1969 part 1" was held five days later on February 3. A review of that hearing transcript shows that testimony focused on the merits and feasibility of bills S. 544 and S. 7. Only brief remarks by a few witnesses reference the Santa Barbara oil spill in progress at the time. In contrast, the hearing titled "Water Pollution – 1969 part 2" that occurred on February 5, legislative evaluations were preempted to focus on "the oil spill off Santa Barbara, California coast." Kingdon (1995) might argue that the Santa Barbara oil spill was a focusing event that opened a policymaking "window." In other words, investigating the oil spill shifted the policymaking agenda from evaluating water pollution-related bills to explaining the oil spill event.

Table 1 – Description of Hearings for Three Spills: Santa Barbara 1969; Exxon Valdez 1989; and Deepwater Horizon 2010

Title	Document Type	Date	Committee	Summary
Water Pollution 1969. Part 2	Hearings Published	2/5/1969	Subcommittee on Air and Water Pollution and Committee on Public Works – Senate	Focuses on oil spill off Santa Barbara, Calif, coast, effects of acid mine drainage pollution, and vessel sewage discharge sanitation devices standards.
Exxon Oil Spill, Part 1	Hearings Published	4/6/1989	Committee on Commerce, Science, and Transportation – Senate	Hearing to review the circumstances surrounding the Mar. 24, 1989 oil spill in Prince William Sound, Alaska, from the tanker Exxon Valdez, and to evaluate Federal and private cleanup efforts and responsibilities.
Massive Oil Spill in the Gulf of Mexico	Hearings Published	5/11/2010	Committee on Energy and Natural Resources – Senate	Hearing to investigate circumstances surrounding Apr. 20, 2010, explosion on and subsequent sinking of Deepwater Horizon mobile offshore drilling rig, and to examine oil and drilling companies' response to Deepwater Horizon explosion and subsequent oil spill.

In summary, I systematically identified particular oil spill events as culturally significant through a careful process of elimination: Santa Barbara oil spill 1969, Exxon oil spill 1989 and the Deepwater Horizon oil spill 2010. I specified the institutional context of congressional hearings as my research site. I narrowed my sampling frame to include only "official records" of events. Finally, I used chronological ordering to determine which particular hearing to submit to inductive narrative analysis and my rule was to examine the first Senate hearing to investigate each spill.

Narrative Analysis of Oil Spill Hearings

Primarily, I relied on Charmaz (2006), Harrison and Cohen-Vogel (2012), Loseke (2012), Smith (2005) and Stone (1997) whose work informed my inductive analytic techniques. In short, I pursued a three pronged strategy: 1) narrative analysis of oil spill hearings, 2) comparison of stories within and between hearings and 3) examining links between representations and "realities"

After selecting the transcripts to analyze, I followed scholars like Charmaz (2006), Brummett (2010) and Loseke (2012), and performed "close readings" to get the gist of the stories about oil spills. Brummett (2010:7) defines close reading as "an attempt to understand shared meanings that are supported by words, images, objects, actions and messages." Following Charmaz (2006), I first read the transcripts multiple times in order to grasp the overall structure of the text. For example, each hearing begins with an opening statement by the chairman of the committee followed by other opening statements. Then the chairman asks invited witnesses to provide testimony. In general, questions and answers follow testimony of witnesses.

Then, I made notes as to the type of stories told within the hearings and who told them.

They are about particular events such as the unanticipated explosion of an oil platform, an

unfortunate crash of an oil tanker, and a devastating blow out of an oil well that resulted in the death of several workers. In my data, I explored the way these events were explained and I considered not only the symbolic representations (metaphoric comparisons to the Titanic or Hiroshima), but also the speaker (legislator, industry representative, academic expert) who was offering the explanations. I highlighted the various types of speakers in each case including political figures, affected individuals, industry representatives, experts and environmental advocates and documented the rhetorical devices used to construct the oil spill problem. Fundamentally, I sought to answer my first set of research questions: Who constructs policy stories about oil spills? What special interests do they represent?

Following my initial close readings, I followed Loseke's (2012) approach and categorized my data according to narrative elements and asked questions like: What is the context/setting of the oil spill event? What is the overall plot? Who are the major characters? What is the moral? Who might evaluate this story as believable and important and why? I read through testimony multiple times and jotted notes down in the hearing text and in field notes to answer general questions about how congressional testimony constructed oil spill events as problematic and in need of intervention. In short, I sought to answer my second set of research questions: How do storytellers define policy problems, causes and solutions in policy narratives?

Establishing Context and Setting

For each event, I summarized background information about the oil spill and the institutional context in which stories are told. I detailed who the speakers are, and what interests they represent. Then, I read and re-read my data and categorized paragraph-by-paragraph specific descriptions of the oil spill event. To establish the setting of the spill, I explored testimony for how it constructed the time and place in which the event occurred. For example, if

a speaker's testimony described the particular time and place in which the oil spill occurred and/or the historical moment or social context, I categorized the comment as an explicit description of setting. Further, I considered testimony that described the particular place in which the oil spill occurred (Santa Barbara Channel, Prince William Sound) as explicit constructions of setting.

Establishing Plot and Characters or "Causal Stories"

After establishing setting, I considered the overall plot of the story and how the oil spill problem was defined and the policy proposals that are offered as prescriptions. In this pass through my data, I highlighted the way political actors use cultural ideas to advance interests. Of the text I asked, what type of problem is being described? How big is the problem? Who or what caused the problem? Who or what was harmed by the problem? And What should be done? In accordance with Stone's (1997) framework, I categorized explanations and descriptions of the event to document plotlines or "causal stories."

I applied Stone's framework to organize the causal stories advanced by diverse and contesting speakers. In my reporting, I selected quotes from multiple voices within the hearing that best illustrated the causal stories that emerged from the data and attempted to capture all of the stories constructed by diverse speakers for each case. If a speaker's testimony described particular people or characters involved, I categorized the comments as explicit descriptions of characters. My characters category is also where I placed statements that make references to specific individuals (such as political officials and industry representatives) as well as disembodied types of individuals (such as technologists, lawyers, experts, and laypersons). I paid close attention to how characters were described and noted the symbolic representations of victims (those deemed harmed by the event) and villains (those deemed responsible).

Finally, I read my data for how it answers the question: what should be done to fix or respond to the oil spill problem? I categorized explicit statements that prescribe next steps and what should be done, actions that should be taken, people, organizations that should be held responsible. Like analysts, Harrison and Cohen-Vogel (2012), I organize stories by storytellers (senators, industry representatives, environmental advocates, experts, etc.) to highlight the ways in which ideas and interests are linked in policy narratives.

It is important to note the referencing protocol that I used to represent my data for each case. In the Santa Barbara 1969 and Exxon Valdez 1989 cases, I refer to quotes by page number as each of these hearings was paginated in one continuous report. However the Deepwater Horizon 2010 case was presented in two panels and were not paginated continuously. Therefore, I use the protocol: (page number, panel a or b) to indicate the source of the quote.

Comparison of Stories Within and Between Oil Spill Events

After analyzing congressional testimony for how political actors construct stories about oil spills, I sought to address my research questions about taken-for-granted assumptions in stories told. Following constructions of causal stories, I moved from documenting within each event to comparing descriptions between events in order to note underlying assumptions that hold stories together. As has already been argued, comparative research is extolled for its power to provide validity in interpretive studies of social phenomenon (Weber 1978, Peterson 2005.) Further, scholars have argued that in order to understand the influence of culture on policymaking processes, analysts should examine and compare cases across time or place (Gupta 2012, Padamsee 2009, Sabatier 1991, Jones and McBeth 2010, Fourcade 2011).

According to Vaughan (2004, 2008) analogical comparisons between diverse stories across time enables analysts to construct theoretical explanations of social phenomena.

Specifically, she argues that analogical theorizing provides for the development of "theoretical explanations by cross case analysis that compares similar phenomena in different social forms that vary in size, complexity, and function" (Vaughan 2008:66). Critically, comparisons allow analysts to observe not only similarities and differences between particular inputs and outputs, but also to grasp the influence of widely held beliefs and ideas on the wider social order as the works of Padamsee (2009), Griswold (2013) and Smith (2005) suggests. Further, comparative research is also a way to build a bridge between methodological poles (Smith 2005, Mahoney 2004). It is systematic and analytically useful for observing social patterns as Fourcade (2011) argues. Additionally, Smith (2005) asserts comparative research offers an approach that "engages with interpretation but does so in a way that is consistent with norms of what we might think of as hypothesis testing." Indeed, Mahoney (2004) states that comparative-historical methods offer tools to detect causal and descriptive inferences that are compatible with statistical research. And Hodge (2006:273) argues that "comparison allows for the generation of many accounts seeking to explain policy development."

Summarily, generalizations produced from comparative analysis can reveal "conventional wisdoms" or widely accepted beliefs about the world (Hodge 2006). Therefore, not only did I analyze *within* each oil spill hearing for how testimony made sense of the event, but I compared the rhetorical strategies used *between* cases. For example, within each oil spill hearing there are different types of causal stories offered to explain the event. State politicians from California construct a story that holds the Federal Government and the oil industry as greedy profiteers responsible for the oil spill while oil industry representatives construct a story that places blame on geological instability and a lack of knowledge about technologies. Both stories contain symbolic representations constructed in normative terms.

Other normative representations are visible in constructions of settings, and characters. I observed statements between events that describe the setting of the story as "beautiful" or "pristine," as positive valuations of setting that were used to justify prescriptions to protect or mitigate the perceived damages constructed in testimony. I also observed similar constructions of victims (wildlife, fishermen, residents, tourists) and villains (greedy oilmen, careless government). Observing similarities in symbolic representations of settings, plots, characters and morals enabled me to make claims about the types of places that we should care about, the types of problems that we should care about and attend to as well as the prescriptions or types of actions that should be pursued to prevent oil spills from happening in the future, and/or to mitigate the damages incurred.

While each spill was narrated in a particular place and time, by unique and powerful actors, the ideas, symbols and images that were used had to resonate with audiences in order to be deemed credible especially given the institutional context of congressional hearing which assumes stories are factual accounts (Stone 1997). By considering oil spill stories together for how actors in different places and times construct the settings, plots, characters and normative ideas of right and wrong (or morals) about a similar, culturally significant phenomenal event – oil spill, I was able to observe taken-for-granted assumptions that constitute culture.

Linking Representations and "Realities"

Finally, I considered how taken-for-granted assumptions within diverse oil spill stories tell us something about the wider cultural context in which stories are told. Via what Vaughan (2004) refers to as "analogical theorizing" I triangulated what I observed in my data with other empirical studies which enabled me to make universal, theoretical claims about the links between symbolic representations of oil spill events and the wider social order or "realities." Expressly,

representations of Santa Barbara coast as too pretty to drill is linked with prescriptions and subsequent moratoriums to protect the Santa Barbara coast from drilling. Not only do I see evidence that links beauty with economic interest, but also taken-for-granted beliefs that nature can be recompensed with money (Fourcade 2011).

I relied on Weber's (1978) foundation for observing social patterns by comparing stories about oil spill events. Despite the differences between events in terms of context, characters, and plots, I observed similarities with regard to symbolic constructions of settings, causal stories, victims and villains as well as normative ideas of right and wrong in prescriptions for redress about similar, culturally significant phenomenal events – oil spills. Briefly, I interpreted similar taken-for-granted assumptions or underlying beliefs and morals about nature, knowledge and innovation. For example, symbolic representations of settings as beautiful and pristine that should be protected from oil extraction and production simultaneously constructs possible settings as not beautiful and pristine that could be targeted for oil extraction and production. This reflects an underlying belief that nature can be compartmentalized and segmented into regions, areas, etc. according to aesthetic beauty or economic value.

Further with regard to knowledge, I noted that all oil spills stories contain prescriptions for further study and investigation which I interpreted as constructing the belief in our ability to develop knowledge about nature and oil drilling processes so as to avoid future oil spills or clean up ones that do happen. In keeping with taken-for-granted assumptions about knowledge are assumptions about types of people who have knowledge and those who do not. I interpret symbolic representations of experts as linked with social hierarchies of types of people who can and cannot make knowledge. Some actors possess knowledge and some do not. Some actors are

expected to have knowledge given their social position, while other actors are exonerated for their lack of knowledge given their status as "lay person."

Finally, I observed that oil spill stories construct the belief that we can and must continue to develop oil for energy. Many prescriptions propose changes to bureaucratic structures and oil development processes to "prevent" oil spills from happening in the future. But there is no mention of constriction, or reducing oil consumption. Theoretically, prescriptions for technological advancements to improve oil drilling processes are linked with underlying beliefs in the moral value of production and consumption more generally (Vaughan 2004).

In summary, a systematic narrative comparison of oil spill stories allowed me to observe links between interests and ideas that I argue makes cultural influence in public policymaking visible. Taking narrative elements together, I read through particular oil spill stories and compared constructions within stories and between stories across time to interpret what is takenfor-granted in explicit descriptions of settings, characters, plots and prescriptions in order to make visible the underlying widely-held beliefs that provide for "narrative coherence" within policy narratives (Rideout 2013).

In my view, using a comparative method is consistent with ideals established by Gubrium and Holstein (1997) who wrote about the need for developing a "new language" in qualitative methods. By using an inductive reasoning approach to narrative analysis whereby I interpreted text of policy hearings using a map of elements (setting, characters, plot, morals), I was able to compare stories and theorize about the persistence and/or transience of values and beliefs regarding oil spills to comment on their link to the wider social order.

In this chapter, I summarized the methodological approach and analytical techniques that I used to explore cultural influence in policymaking. In the next few chapters, I report the

findings of my study and illustrate the narrative comparative approach in more detail with analyses of congressional testimony of the Santa Barbara oil spill (chapter 4), the Exxon Valdez oil spill (chapter 5) and the Deepwater Horizon oil spill (chapter 6). In my final chapter, I synthesize findings across oil spill events to offer conclusions regarding widely held beliefs in policy stories that can shed light on their influence on the wider social order more generally.

CHAPTER FOUR: STORIES ABOUT THE SANTA BARBARA OIL SPILL

On Tuesday, January 28, 1969, a well operated by Union Oil blew out which ultimately caused between one and three million gallons of oil to spill into the Santa Barbara Channel (Gramling and Freudenburg 2012). The Santa Barbara oil spill is known as the first major oil spill in America (Kurtz 2004). The oil spill received a lot of media attention in an historical context in which oil drilling was new and contested. Molotch (1970) suggested that a collective heightened awareness and concern for the environment had the effect of dramatizing the spill and bringing it into the foreground among the political elite. Indeed, the oil spill became the topic of a previously scheduled hearing about water pollution legislation. As Kingdon (1995) suggests, the Santa Barbara oil spill was a "focusing event" that shifted the original policy agenda from general water pollution issues and legislative proposals to a focus on understanding the extent of the oil spill problem, who or what caused it, and what should be done.

In the paragraphs that follow, I provide a narrative analysis of testimony in the first Senate hearing to investigate the event. First, I summarize the institutional context in which stories are told, and then I address research questions about who the story tellers are and the interests they represent as well as how storytellers construct problems, causes and solutions. I organize my analysis using Stone's (1997) "causal story" framework. Finally, I conclude with a discussion of findings and highlight the ways diverse stories reveal widely held beliefs or morals about how the world should work.

Institutional Context

According to Jones and McBeth (2010), the policy narratives are shaped to some extent by context-related constraints. Indeed, the Santa Barbara oil spill is storied in a policy arena of air and water pollution, and in the institutional context of the U.S. Senate Subcommittee on Air and Water Pollution of the committee on Public Works. As previously mentioned, the Santa Barbara oil spill was the first major offshore oil spill to occur in America – the only precedent (referred to in testimony) was the *Torrey Canyon* shipwreck which happened off the coast of the U.K. in March 1967.

It was Wednesday, February 5, 1969. The U.S. Senate Subcommittee on Air and Water Pollution of the Committee on Public Works met at 10 in the morning in room 4200 of the New Senate Office Building. Several senators, along with invited witnesses, convened to discuss issues related to water pollution, specifically "bills to amend the federal water pollution control act" and "related matters pertaining to the prevention and control of water pollution." Yet about a week prior to the hearing, an event in Santa Barbara, California interrupted the scheduled policy agenda. The committee chairman, Senator Muskie, a Democrat from Maine, called for order. "The hearings before the subcommittee this week – and today's testimony in particular – have taken on an expanded significance with the disastrous oil spill which continues off the coast of Santa Barbara" (p. 267). Present at the meeting were members of the Senate Subcommittee on Air and Water Pollution as well as invited witnesses. (See Table 2).

On the first day of the two day hearing, witnesses from Santa Barbara County, George Clyde from the County Board of Supervisors and Richard S. Whitehead, Director of Planning for Santa Barbara County were invited to speak at the hearing. In addition, Fred Hartley, President

of Union Oil presented testimony about the event. Thomas R. Glenn of the State and Interstate Water Pollution Control Administrators also testified briefly.

Table 2 – Alphabetical List of Senate Members of the Subcommittee on Air and Water Pollution

Name	Political Party
Howard H. Baker, Jr.	R-Tennessee
Birch Bayh	D-Indiana D-Indiana
J. Caleb Boggs	R-Delaware
John Sherman Cooper	R-Kentucky
Robert J. Dole	R-Kansas
Thomas F. Eagleton	D-Missouri
Joseph M. Montoya	D-New Mexico
Edmund Muskie (Chairman)	D-Maine
Jennings Randolph	D-West Virginia
William B. Spong Jr.	D-Virginia

On the following day, Thursday, February 6, other witnesses testified before the senators including Louis Clapper from the National Wildlife Federation, Dr. Spencer M. Smith of the Citizens Committee on Natural Resources, C.R. Gutermuth of the Wildlife Management Institute, Ted Pankowski of the Izaak Walton League, William Towell of the American Forestry Association, Lloyd Tupling of the Sierra Club and M. Rupert Cutler of the Wilderness Society. (See Table 3).

In brief, the first Senate hearing to make sense of the Santa Barbara oil spill was storied by particular individuals who represent particular interests. The oil spill shifted the original agenda of water pollution legislation to an investigation of what caused the spill and what should be done about it. Senators representing both Democratic and Republican interests were in

attendance as well as several individuals representing the interests of the environment, Santa Barbara County and Union Oil. In prepared statements and in questions and answers between witnesses and senators, I observe contesting stories that construct the Santa Barbara oil spill problem, causes and solutions in predictable ways.

Table 3 – Chronological List of Witnesses – Santa Barbara

Name	Organization	Date
George Clyde	Member, Santa Barbara County Board of Supervisors	February 5, 1969
Richard S. Whitehead	Director of Planning, County of Santa Barbara(accompanied George Clyde)	
Thomas R. Glenn	Association of State and Interstate Water Pollution Control Administrators	
Fred Hartley	President, Union Oil Co.	
Louis S. Clapper	Chief, Division of Conservation Education, National Wildlife Federation	February 6, 1969
Dr. Spencer M. Smith	Secretary, Citizens Committee on Natural Resources	
C. R. Gutermuth	Vice President, Wildlife Management Institute	
Ted Pankowski	Conservation Associate, Izaak Walton League	
William Towell	The American Forestry Association	
Lloyd Tupling	Sierra Club	
Mr. Rupert Cutler	The Wilderness Society	

Causal Stories

Throughout the transcripts, witnesses provide testimony that constructs diverse stories about the Santa Barbara oil spill – the problem, causes and solutions. Stone (1997) provides a framework for capturing causal narratives that attempt to explain how and why an event like the Santa Barbara oil spill occurred. This framework organizes types of "causal stories" or plotlines that are often proffered in policymaking and are somewhat predictable. Explanations of cause can be organized according to whether the actions of groups and individuals are deemed unguided or purposeful and whether the consequences of actions are deemed intended or

unintended. According to this framework, the way *cause* is represented in causal stories is linked with prescriptions for the problem's redress. Arguably, simple causes beget simple solutions. But in Santa Barbara oil spill testimony, representations of cause are contested and complex.

Invited witnesses came to the hearing with prepared testimony and statements about the oil spill and related problems. They told causal stories that reflect their constituent interests. For example testimony from Santa Barbara representatives construct the oil spill problem as due to the recklessness of the oil industry and the Federal Government that had disastrous implications for residents and tourists in Santa Barbara county. The president of Union Oil, on the other hand, constructs the problem as an accident of nature – that the oil company was the unlucky bidder on a geographically unstable parcel in the outer continental shelf. Environmental advocates construct the problem as a symptom of a larger problem of environmental neglect. Senators point fingers at the oil industry and complex causes testifying that the problem underlies the need for more proactive policymaking. In addition to offering testimony constructing the problem, witnesses and senators construct the victims (who are harmed) and villains (who caused the harm) along with prescriptions for redress.

As Stone (1997) points out in her framework, problems are constructed with symbolic representations, including metaphors, numbers, and other literary devices (ambiguity, synecdoche) that are visible in testimony. Not surprisingly, constructions of the problem are strategically aligned with the particular interests of the speakers that are visible in policy proposals to address the oil spill. In what follows, I present causal stories offered by witnesses and senators and highlight the way testimony constructs the problem, victims, villains and solutions that are linked with particular interests.

Santa Barbara County Representatives: Avoidable Ignorance (Industry/Government Recklessness)

The first witnesses to testify in the hearing were Mr. Clyde (Santa Barbara County Supervisor) and Mr. Whitehead (Santa Barbara County director of planning). They were invited to provide testimony about the oil spill because Mr. Clyde wanted drilling in the channel to cease because of the Santa Barbara oil spill. Their interests were to "protect the channel" on behalf of residents, tourists, and business owners. The first part of Mr. Whitehead's testimony emphasized the history of oil development in California. His testimony worked to construct the idea that while there is a long history of oil development and an abundance of the resource in California, the aesthetics of the area were more important to local Santa Barbarans. In addition to providing an historical background about oil development in the State, Mr. Clyde and Mr. Whitehead also testified about the geographic composition of the channel using maps to depict fault lines, sanctuaries and buffer zones as well as lease negotiation practices between Santa Barbarans and the Federal Government.

However, Mr. Clyde and Mr. Whitehead suggested they knew very little about geographic faults in the area. Mr. Clyde testified, "We are not technicians, I want to emphasize that" (p. 269). And later added, "We can discuss that in a limited way as laymen" (p. 269). When discussing existing oil exploration and drilling in the Santa Barbara area, Mr. Clyde remarked "Our local knowledge of the area out there, both in the State and in the Federal areas [of the channel], is extremely limited, but there has been a lot of exploration" (p. 283). However, these claims are challenged in testimony by other witnesses who suggest people did know or *should have known* about the vulnerabilities given their perceived experience and expertise. This explanation shifts the application of blame and accountability from an accident of fate to human

action in that the spill may not have happened were it not for "avoidable ignorance" (Stone 1997).

Santa Barbara representatives construct an avoidable ignorance causal story that places blame and responsibility for the oil spill with the oil industry and the Federal Government. Simultaneously, testimony constructs Santa Barbarans as innocent victims who were taken advantage of by greedy market interests. Finally, testimony constructs the solution to cease oil drilling in the channel and beyond.

Problem Definition: Tragedy

According to Mr. Clyde, the Santa Barbara oil spill is "terribly tragic" (p. 295) "stinking mess" (289). Additionally, the spill is constructed as large with references to numeric estimates. Mr. Clyde's testimony suggests that the scope of the problem is big. "We have received estimates from some of the scientists at research companies and at the university ranging from 5,000 to 20,000 barrels a day" (p. 288). As Stone (1997) points out, numbers have normative meaning. Mr. Clyde uses numbers to construct the meaning of the oil spill problem as large and therefore in need of immediate action. "Measures imply a need for action, because we do not measure things except when we want to change them or change our behavior in response to them" (Stone 1997:167-8).

Numbers also convey what is included and excluded in the problem. Santa Barbara representatives also construct the oil spills as a problem because it is expensive. While Mr. Whitehead testified that California is abundant in oil resources, he further testified that oil is not the most important resource in Santa Barbara County. More important than oil to Santa Barbarans was the natural aesthetic beauty of the coast. As Mr. Clyde stated, "We have a lot of fine beach area, but this is some of the finest" (p. 289). Beauty is constructed as economically

valuable – a draw for vacationers. And ugly oil spills conflict with aesthetic beauty. Many aspects of Santa Barbara's beauty are highlighted. Specifically, Mr. Whitehead commented that Santa Barbara is "internationally known as the Riviera of the West" (p. 271), because of its "year-round Mediterranean climate, the scenic beauty, the mountain backdrop, with ocean views clear to the islands, the excellent beaches with year-round swimming." He also constructs Santa Barbara as unique for its "restrictive zoning controls [which] have attracted many retired persons and established a tourist, recreation, and convention industry" (p. 271). These testimonies illustrate the use of container metaphors that suggest the problem is contained to a fixed space. According to Lakoff and Johnson (1980), constructing boundaries around physical spaces like beaches and islands is an act of quantification that assumes substances and values that "fill" the space. In this case, scenic beauty fills and is the substance of Santa Barbara.

Continuing to construct quantitative estimates of the problem, Mr. Whitehead testified that "Sixty percent of our basic income in the south coastal area is derived from these sources [recreation, tourism, convention industries] including the University of California. An additional 20 percent comes from the high-type research and development industries attracted by our environmental assets, a total of 80 percent of our basic income that can be ruined by disasters such as oil spills. In contrast, the oil industry contributes only 2 percent to the basic income of the south coastal area" (p. 271). Again, witnesses use numbers to convey the value and importance of the Santa Barbara coast. The implication here is that Santa Barbara may have abundant oil resources, but the area is not dependent on oil revenues. The value and substance of Santa Barbara's beauty is constructed in economic terms and numeric estimates.

Simultaneously, the Santa Barbara oil spill is constructed as causing great and costly harm to Santa Barbarans.

Victims: Santa Barbara Beaches, Santa Barbarans, Residents, Tourists and Businesses

Not surprisingly, Santa Barbara representatives construct the Santa Barbara area itself as a victim of the spill. The beauty of Santa Barbara is constructed as so important that Santa Barbarans protested against oil development processes in the area. For example, Mr. Whitehead testified about the political conflicts surrounding the development of onshore processing apparatus required to distill and store oil products prior to exportation and distribution. "In 1968, the planning commission and the board of supervisors adopted ordinance, over protest, permitting the first new processing plant required to service platforms in the Federal waters at Carpinteria. A referendum petition was filed in about 3 weeks and at the national election on November 5, the voters in the county and its five cities forced the rescinding of this ordinance" (p. 272). According to Mr. Whitehead, this protest "indicates the attitude of the majority of voters toward oil development" (p. 272). This testimony works to construct the interests of Santa Barbara voters who did not want oil development in the area.

And Mr. Clyde testified, "It was a difficult battle in the State legislature" (p. 284). He suggested that Santa Barbarans are "constantly on the lookout to protect that sanctuary because it is extremely important to our tourist economy and residential economy" (p. 284). He testified that Santa Barbarans feared the possibility a spill would happen. In contrast, the Federal Government and the oil industry are described by Mr. Clyde as being "hell bent to lease the channel" (p. 281). Mr. Clyde constructs his interests on behalf of Santa Barbara constituents in testimony that points the fingers at the Federal Government and the oil industry for causing the oil spill. Further, he exonerates Santa Barbarans who tried to protest oil development. The Santa Barbara oil spill is constructed as a big, expensive problem for Santa Barbara residents,

tourists and business owners that was caused by the greed and recklessness of the Federal Government and oil industry.

Villains: Industry, Federal Government

In response to testimony that suggested the oil spill was caused by unstable geographic faults (accident of fate), Santa Barbara representatives testified that people should have known about the geographic instability in the Channel. For example, Mr. Clyde testified at length about the investment made by the oil industry to investigate and explore the Santa Barbara Channel. His comments suggest a frustration with the proprietary nature of the knowledge gathered by the industry and Federal Government. Specifically, he said, "I don't know whether the Federal Government knew about it... We didn't know... The oil industry did know about the geological conditions out there... People with technical know-how should have known" (p. 281). Here, Mr. Clyde's testimony suggests that ignorance about geographic conditions was avoidable. Mr. Clyde's testimony works to construct villains as the oil industry, "people with technical know-how" and the Federal Government which also works to construct the problem as one of intent rather than accident (Stone 1997).

Moreover, Mr. Clyde's testimony constructs the oil industry and Federal Government as villains who intended harm in testimony that suggests Santa Barbarans were taken advantage of. In a version of what Stone (1997) would call the "story of decline," Mr. Clyde's testimony paints an image that during the proposal stage in leasing negotiations, the industry's presentations to local groups and organizations about oil drilling technologies created a false sense of security. He expressed an uncertainty about offshore drilling technology as a cause for concern prior to the drill but that a "laymen's" lack of understanding about complex oil extraction processes were assuaged by "the experts." Speaking on behalf of his Santa Barbara constituents, Mr. Clyde's

comments imply that an "urgency" to drill the channel for oil industry operators and the Federal Government was met with concern by Santa Barbarans. "[Y]ou may well ask why we at the local level didn't stress spillage controls...It was discussed several times, but always Interior Department and oil industry officials led us to believe that we had nothing to fear. They said they had perfected shutoff devices that were foolproof" (p. 281).

Continuing, Mr. Clyde later testified that residents had no opportunity to protest the lease. Specifically, an exchange between Mr. Clyde and Senator Cooper (R-Kentucky), emphasizes that there are no public hearings or public notices that enable residents to protest or gain information about offshore oil drilling (p. 284-5). In other words, members of the lay public are not "in the know."

Senator Cooper (R-Kentucky): It is correct, then, that there are hearings that would enable the community of Santa Barbara or other communities and their people to protest the drilling of a certain area or a certain well?

Mr. Clyde (County Supervisor – Santa Barbara): It would only be on the moving in of platforms, only on permanent structures that there would be hearings, and the hearing is called only if the Corps of Engineers feels that it is necessary.

Senator Cooper (R-Kentucky): Is there any kind of public notice of which you are aware given to the community or to the State or to the people at the time these applications for permits are filed with the Department of the Interior?

Mr. Clyde (County Supervisor – Santa Barbara): Not as far as I know.

The implication is that Santa Barbarans were innocent victims of the careless disregard among the villainous industry and Federal Government for drilling in the vulnerable Santa Barbara Channel. Constructing a story of decline, Mr. Clyde implies that things were good in the beginning, but now they are horrible. Santa Barbarans have been expelled from paradise. As Stone (1997:206) points out, contesting causal stories are symbolic attempts to locate "moral responsibility and real economic costs" of the Santa Barbara oil spill. According to Mr. Clyde's testimony, moral responsibility lies with industry and the Federal Government.

Solutions: Stop Drilling for Oil, Protect Beauty

Mr. Clyde concluded his testimony with a request that constructs his interest in protecting the Santa Barbara Channel from oil drilling. "Gentlemen, we need help and protection and this help and protection is not needed in just Santa Barbara or California, but in all areas which are now being opened to offshore drilling. We have not gotten this help from the Interior Department" (p. 291). By including "all areas" in his prescription, Mr. Clyde constructs potential victims of oil drilling as other places that might be affected by these operations and therefore the benefit of his prescription to be far reaching. This narrative strategy is what McBeth, Shanahan, Arnell and Hathaway (2007) refer to as "loser's tale." If the proposal to stop drilling in Santa Barbara is not accepted, then everyone loses.

Mr. Clyde also prescribed technological improvements in oil development in order to provide "at least some guarantee that this won't happen again" (p. 305). Arguing against the use of platforms in the production process, Mr. Clyde testified, "In the interest of protecting the esthetic environment of the community...we were attempting to keep platforms that were close in at a minimum...if we could get some type of other completion method that did not require this number of platforms..." (p. 299). Consistent with causal stories that construct the Santa Barbara area as victim, Mr. Clyde proposes an inducement to protect the beauty of Santa Barbara.

In summary, Santa Barbara representatives construct the oil spill problem, causes and solutions consistent with their constituent interests. The testimony of Mr. Clyde and Mr. Whitehead construct the Santa Barbara oil spill as a tragic problem which led to significant economic consequence for Santa Barbarans, tourists and businesses. Using rhetorical devices such as numbers, and metaphors, Santa Barbara representatives blame the oil industry and the Federal Government for recklessness that led to the spill. In contrast, they hold blameless Santa

Barbarans who did not have any access to protest or participate in lease negotiations. Finally, testimony constructs solutions to stop drilling, protect aesthetic coastal environments, and regulate the industry so that "this won't happen again." The next witnesses to testify about the oil spill was the President of Union Oil, Mr. Hartley.

Union Oil Representative: Accident of Fate (God's Fault), Unavoidable Ignorance

Predictably, Mr. Hartley constructs an accidental causal story consistent with his interests to protect his company's reputation and to avoid fiscal responsibility. His company was the principal operator of the well that blew out leading to millions of gallons to leak into the Santa Barbara Channel and as such was held responsible for the spill. Not surprisingly, Mr. Hartley blamed the geological conditions in the area. Mr. Hartley of Union Oil said, "[V]ery frankly, Mr. Chairman, we do rely on the uniformity of Mother Earth to take barrel one out of it" (p. 386).

In Stone's (1997) causal theory framework, constructing the cause of the oil spill as an accident of fate deflects blame from individuals to conditions beyond human control as she writes, "no one is responsible in the realm of fate" (Stone 1997:191). Indeed, if the cause of the problem is determined to be due to an "unavoidable accident" then accountability for its clean up and response is diffuse and hard to pin down. It is predictable that deflections of blame and responsibility are advanced by individuals such as Mr. Hartley who represent the interests of the oil industry.

Deflections of blame are observed in other industry representations of cause. Stone refers to this type of story as "inadvertent causes." In inadvertent causal stories, the consequences of drilling may be predictable, but not intended as can be seen in Mr. Hartley's testimony when he testified, "Obviously if there were no well drilled in Santa Barbara I presume today this problem

would not exist..." In these types of representations the cause of the spill is not due to "willful negligence," per se but because of a lack of sufficient knowledge about the geological vulnerability of the area being drilled. In short, actors involved were ignorant of the geological vulnerability.

In addition to deflecting blame away from the oil company, Mr. Hartley's testimony constructs shared responsibility with the Federal Government. Specifically, he opened his testimony with: "I would like to first stress that we do have here a Federal Government-industry partnership involved in the development of offshore oil on the Outer Continental Shelf....for the development of oil resources for the supply of the energy requirements of this country" (p. 320). Additionally, he testified that the Federal Government was a major beneficiary of offshore drilling in California in that they collected "about \$602 million" in the offshore sale in the state" (p. 321). The Union Oil Company was the principal operator of the drilling operation in Santa Barbara, but Mr. Hartley's testimony works to deflect blame or at least to share blame with the Federal Government to avoid punitive outcomes.

Problem Definition: Accident, Not a Disaster

While Mr. Clyde of Santa Barbara described the oil spill as "tragic," Mr. Hartley's testimony downplays the extent of the problem by using less hyperbolic representations such as "incident" and "accident." For example, Mr. Hartley, testified: "I think we have to look at these problems relatively. I am always tremendously impressed at the publicity that death of birds receives versus the loss of people...in this day and age...I think relative to that the fact that we have had no loss of life from this incident is important...[A]lthough it has been referred to as a disaster, [it] is not a disaster to people. There is no one being killed" (342-3). So, for Mr. Hartley, the oil spill was a problem, but not a disaster, because there were no human casualties.

Such testimony works to downplay the severity of the spill and to further distance his company from responsibility. It also constructs "disaster" as a particular type of problem that includes the loss of human life.

Additionally, Mr. Hartley testified that the size of the spill was not as large as Mr. Clyde suggested. Mr. Hartley of Union Oil company disagreed with the estimate of 20,000 or more barrels a day and countered with "I think the numbers that we have indicated of between not less than 100 barrels a day and not more than 500 barrels is a pretty fair range and perhaps pretty much in keeping with our general knowledge to date" (p. 351). Again, numbers are given meaning (Stone 1997). In Mr. Hartley's testimony, using a smaller estimate constructs the spill as a problem that is not so big. It is understandable that witnesses whose interests may be to protect and remediate the Santa Barbara Channel might represent the size of the spill with large estimates while the chief executive of the company who may be held responsible for the event might refute these estimates.

Victims: Union Oil

From the perspective of the oil industry, Union Oil is constructed as the victim. Mr. Hartley deflected claims that he and his company knew about the risks for drilling in the Channel. His testimony suggested that they were doing the best they could with what they knew at the time. "We are satisfied that the Government and the industry were believed to be, at least up until Tuesday before last, well supplied with experience and knowledge that would say a prudent man, a prudent company following the regulations, implementing them, would successfully drill oil wells" (p. 328).

In response to charges that Union Oil was ill prepared to respond to the problem, Mr. Hartley claimed that both the industry and the Federal Government lacked response capability.

"[O]ur industry and our government, both of us do not really have the proper apparatus to take oil off the ocean. Normal cleanups that take place occur basically in still waters, in harbor areas, in terminal areas, and the problem of recovering oil from a terminal water surface and the problem of recovering oil from the surface of an ocean are two entirely different things" (p. 336). Mr. Hartley's testimony constructs the Santa Barbara oil spill as an event with which he lacked experience and familiarity. His testimony also suggests that his expertise was limited to "normal cleanups." Constructing the event as qualitatively different from "normal" can be interpreted as another strategy to deflect blame and responsibility. As Del Rosso (2011) argued, actors use rhetorical techniques to "deny, justify, and qualify" events as "isolated incidents" to avoid responsibility. Accordingly, the Santa Barbara oil spill is constructed as a freak accident, an anomaly in the day-to-day business of oil drilling.

Indeed, Mr. Hartley later testified "[W]e did not anticipate a flow out of the earth's crust...this kind of failure I think I am the first to admit has not really been appreciated by we mere human beings" (p. 356). Using the symbolic representation "mere human beings" works to construct actions as unintended and consequences as unforeseen simultaneously constructing Mr. Hartley and company as sympathetic characters.

Villains: Federal Government

In addition to blaming Mother Earth, Mr. Hartley pointed the finger at the Federal Government. Mr. Hartley testified that the Federal Government is the greedy villain which had much to gain while his company had much to lose. He testified that while the Federal Government gets paid royalties and rents, Union Oil is left holding the bill for the spill. Mr. Hartley's comments imply regret for having won the bid to drill in the Channel because of high risks and related expenses. "Block 402 containing about 5,000 acres was auctioned off and I

supposed I should say today, we unfortunately were the successful bidder at \$61 million...Uncle Sam has had that money since last March...Yes, this is an expensive game" (p. 350).

Mr. Hartley's use of the symbol "Uncle Sam" is a widely recognized nickname for the U.S federal Government that personifies the government and elicits an underlying narrative that works to re-cast Union Oil as the victim and Uncle Sam as the villain (Lakoff and Johnson 1980). Lakoff and Johnson (1980:34) argue that personification metaphors "allow us to make sense of phenomena in the world in human terms – terms that we can understand on the basis of our own motivations, goals, actions, and characteristics." Mr. Hartley's company is suffering the attribution of blame and responsibility for the oil spill, so uses the *government as adversary* metaphor to provide "a coherent account of why we're suffering losses" (Lakoff and Johnson 1980:34) It is somewhat predictable as it is in Mr. Hartley's interest to construct the oil spill as an accident of fate and moreover, to metaphorically cast the Federal Government as the lucky winner in the risky game of oil drilling and Union Oil as the unfortunate loser.

Solutions: Improve Clean Up Technologies and Learn from the Experience

Mr. Hartley's testimony constructs solutions to the Santa Barbara oil spill that involve improvements to technologies, sharing of knowledge among industry players and to learn from experience that are consistent with his interests to avoid fines and fiscal responsibility.

Constructions of solutions assume their feasibility (Stone 1997). "Our engineers do not think it is to be a ridiculous thought that something in the nature of a floating drydock [to provide for the recovery of spilled oil]" (p. 331). Additionally, constructing solutions as shared responsibilities also work to deflect blame against a particular company, such as Union Oil. As Mr. Hartley testified, "industry should get busy and clean things up...it should cooperate...should interchange equipment" (p. 358). By referring to the oil industry as an entity, or object, Mr.

Hartley invokes "ontological metaphors." The use of this metaphor serves the purpose of "setting goals and motivating actions" (Lakoff and Johnson 1980). Focused on the future, Mr. Hartley proposes what the industry should do.

Finally, Mr. Hartley testified for proposals that suggest the hearing will not solve the oil spill problem, but that he hopes hearings will bring about positive outcomes: "I hope that the hearing does bring forth facts that can be intertwined into regulations that will be beneficial to our industry and the government (366). Stone (1997) argues that proposing "facts" or information gathering as a policy instrument is an act of persuasion that makes punitive sanctions such as fines, or constricting rules and regulations unnecessary. By emphasizing regulations, again Mr. Hartley's testimony shifts the solution toward future events and deflects the potential application of punitive fines. After Mr. Hartley's testimony concluded, the hearing was adjourned for the day. The following day, a panel of environmental advocates testified.

Environmental Advocates: Avoidable Ignorance (Careless Industry and Federal Government)

Environmental advocates testified on the second day of the hearing. All witnesses provided their statements and then were asked questions by senators. In the testimony of environmental witnesses, the Santa Barbara oil spill is constructed as a disaster for the environment as a whole, perpetrated by the reckless oil industry that necessitates solutions to protect environmental resources. Predictably, constructions of the problem, causes and solutions are consistent with the speaker's particular interests.

Problem Definition: Catastrophe, Synecdoche

Most environmental witnesses construct the oil spill as a disaster or "catastrophe" (Mr. Tupling of the Sierra Club (p. 402). However, some testified that calling the oil spill a disaster

Association argued that it is "unfortunate that the Santa Barbara incident has become the focal point of this hearing" (p. 421) because it blinds the committee to the "real purposes of S. 7 and the Water Pollution Control Act." And Mr. Gutermuth, Vice President of the Wildlife Management Institute complained that "we can get all hot and bothered about such a small stretch of ocean, when...the general public across this country have paid so little attention to the serious pollution matters that have been going on in all of our waters throughout the entire continent" (p. 387). Here, Mr. Gutermuth's comments suggest a frustration with the necessary visibility of environmental problems – that if pollution is out of sight, then it is out of mind. Using symbolic constructions such as "synecdoche," these witnesses constructed the oil spill as just an instance of a larger problem, environmental neglect. "Synecdoche is a figure of speech in which a whole is represented by one of its parts" (Stone 1997:145). In this case, the Santa Barbara oil spill represents a small part of a larger problem consistent with the witness's concern for the environment and natural resources.

Like other testimony in the hearing, environmental witnesses use numbers to describe the scope of the problem but predictably numbers differ according to speaker. In Mr. Hartley's testimony, the spill was estimated to be between 100 and 500 barrels a day. Mr. Gutermuth of the Wildlife Management Institute on the other hand testified that the scope of the problem measured 21,000 barrels a day. "That is a figure [21,000 barrels a day] that has been used by everyone. Heaven knows it's bad" (p. 416). Conflicting estimates are not surprising in policymaking as Stone (1997) argues "Debating the size of a phenomenon is one of the most prominent forms of discourse in public policy." And estimates coincide with the interests of storytellers.

Victims: Wildlife, Beaches, Birds

In testimony proffered by environmental advocates, constructions of the victims are predictably linked to interests to protect, preserve and conserve natural resources. For example, a wildlife advocate constructed the natural environment as being victimized by the oil spill. Specifically, Mr. Cutter of the Wilderness Society suggested that just one oil spill has far reaching implications: "It is easy to belittle the death of a few thousand birds and sea mammals caught in a Torrey Canyon or Santa Barbara Channel – type disaster – until one considers that the entire continental population of a given waterfowl species...can be wiped out with one bad spill" (p. 408). Here, Mr. Cutter uses synecdoche to expand the domain of victims from a few thousand birds to entire species. This strategy works to link the implications of the oil spill beyond the local to a larger issue related to the loss of biodiversity. Expanding the domain of potential victims makes the oil spill a problem that everyone should care about (Loseke 2003).

Other victims constructed in testimony by environmental advocates include: "recreational beaches and death or damage to wildlife and fishery resources" (Mr. Clapper of the National Wildlife Federation, p. 369), and potential victims including sea lions, brown pelicans and bird colonies (Mr. Tupling of the Sierra Club, p. 402.). Mr. Tupling described photographs of victims covered in oil that he presented in his testimony, "This picture here shows the oil which is on the rocks on the Santa Barbara shore...Here is one of the gulls covered with oil...And here is another one...this one didn't make it... He's dead" (p. 404). Using images of oil-soaked birds works to construct blame and responsibility for the oil spill. Morse (2012) argues that oil soaked birds are part of a visual narrative that constructs the oil industry as evil and threatening to human life and the natural environment. In Mr. Tupling's testimony, the oil industry is constructed as responsible for the death of birds and the potential harm to sea lions.

Villains: Federal Government, Oil Industry

In most testimony from environmental witnesses the finger of blame is pointed at the Federal Government and the oil industry for perceived carelessness. For example, in discussions about the number of wells being drilled in Santa Barbara, Mr. Gutermuth testified that according to Mineral Leasing Act, the Secretary of the Interior Department "has the right to not only let areas for option and leasing, but he has the right to establish the rules and regulations that should be imposed upon the operators" (p. 411). And he later qualified, "My criticism here in this statement is that the Government has not done that [established rules and regulations...]" This testimony works to construct the Secretary of the Interior Department as responsible for not enforcing regulations that may have prevented the oil spill.

Blame is also levied at people who should have known better. Dr. Smith of the Citizen's Committee on Natural Resources argued that the knowledge about vulnerable geographic conditions was available as of the late 1950s. "This is precisely what [Zimmerman of the Bureau of Land Management and Indian Affiars Division] predicted...I remember the little schematic drawing he made exactly how the drills went down; where the fault was and how the oil seepage would take place...This was in the late 1950s when this was being discussed...So, some people had this knowledge" (p. 375-6). While particular individuals are not singled out, blame and responsibility are levied at the oil industry as well as at the Federal Government for their responsibility for knowing about geological conditions and potential risks. The implication in testimony is that government and industry officials had the knowledge about the faulty conditions and drilled anyway, and that they should have been more cautious, they should have known better. Stone (1997:203) refers to this strategy as showing that the effects of action (oil spill due to oil drilling) were accepted as "a calculated risk by the actor." Constructing a story of

"willful neglect" works to frame the problem as one of avoidable ignorance; thereby pushing the cause of the event into the realm of intent (Stone 1997).

Solutions: Study, Organizational Change, Operator Fines, and Cessation of Drilling

Solutions proposed by environmental advocates are linked to what Stone refers to as the "rational ideal." "The rational ideal presupposes the existence of neutral facts" (Stone 1997:307). Mr. Gutermuth of the Wildlife Management Institute proposed "I favor increased research and mineral exploration by the new agency, assisted by the U.S. Geological Survey" (p. 380). And Mr. Cutler of the Wilderness Society supported the passage of legislation "which provides at least for a study of the feasibility of a national system of marine sanctuaries" (p. 420). While the rational ideal supposes that facts are not interest-based, Stone (1997:307) asserts that "facts do not exist independent of interpretive lenses" but are "political acts." Interests of the speaker are observed in the proposal for fact gathering. Arguably, the Wilderness Society would benefit from a study affirming the protection of marine sanctuaries.

Other proposals suggested include what Stone refers to as "constitutional engineering" which include proposals to reorganize organizational structures and decision making. For example, Mr. Gutermuth's (Wildlife Institute) commented, "I favor an alternative proposal...to transfer all administrative functions, exclusive of the military, to a single agency in the Department of the Interior, which would have the responsibility of drafting regulations...based largely on an analysis of the national supply-demand situations" (p. 389).

Furthermore, Mr. Clapper of the Division of Conservation Education of the National Wildlife Federation suggested that "the Federal licensing agency be required to get recommendations of the Interior Department for compliance" before an oil-drilling project is certified (p. 373). Other suggestions for restructuring decision making protocols include

requiring "an applicant for a federal license or permit to provide the licensing agency with certification from appropriate State or interstate water pollution control authorities that the facility shall comply with applicable water standards (p. 394)," as stated by Mr. Pankowski, Conservation Associate with the Izaak Walton League. The implication of constructing the solution as a matter of reorganizing the chain of command is that the change in decision making processes will produce better decision making. Changes to organizational structure will yield efficiency and predictability that was lacking before and partly responsible for the oil spill (Stone 1997).

And some witnesses testified that the oil industry be held financially accountable for oil spills. That is witnesses suggest that oil industry operators be held liable for *potential* spills. For example, Mr. Towell of the American Forestry Association recommended a fund to be created and maintained by the oil industry in the event of an oil spill. "This would be a pool on the part of the oil industry in which they would contribute according to the size or volume of their business which could be drawn upon whenever there was an accidental, intentional, or careless oil spill that required attention (p. 421)." The implication in this testimony is that oil operators should be prepared to pay which simultaneously constructs the belief in the ability to compensate beaches, coastlines and wildlife for damages resulting from an oil spill.

Finally, some comments raise questions about laws that permit oil production activities in the United States at all. Mr. Clapper of the National Wildlife Federation argued that avoiding trouble is tantamount to stopping offshore oil drilling in beautiful areas like Santa Barbara. "[W]e believe the time has come to consider priorities. It is our opinion the Federal, State, or local governments should establish policies of refusing to permit offshore oil operations which pose a threat to outstanding public recreational beaches and other facilities" (p. 371). Mr. Cutler

of the Wilderness Society similarly testified, "I have often wondered why we permit oil drilling in such scenically and biologically valuable areas as the Santa Barbara Channel and Cool Inlet in Alaska, when we could import oil from abroad and save our own domestic reserves for later exploitation when needed (p. 408)." Here the underlying assumption is that Santa Barbara is too pretty to drill. With the use of ontological metaphors that contain domestic scenic and biological areas as valuable, environmentalists propose that Santa Barbara should be protected from exploitation, but that drilling abroad is not problematic. As Cutler's comments suggest, we can "exploit" our domestic reserves later, after we exploit foreign reserves.

In summary, diverse environmental advocates construct stories consistent with interests to protect the environment, get resources to establish marine systems, sanctuaries and for future oil spill remediation. Witnesses use strategies such as synecdoche by referring to the oil spill problem as a symptom of a larger problem of environmental neglect. They implicate the Federal Government and the oil industry for careless disregard for natural resources and propose solutions that are linked with environmental protection in general.

Senators: Recklessness (Avoidable Ignorance) and Compex Systems (Unavoidable Ignorance)

With the exception of Senator Muskie (D-Maine) who provided an opening statement, Senators in attendance at the hearing told stories in comments and questions posed to witnesses. Senator Muskie opened with "The hearings before the subcommittee this week – and today's testimony, in particular, have taken on an expended significance with the disastrous oil spill which continues off the coast of Santa Barbara, Calif' (p. 267). Not surprisingly, Senators construct the oil spill as a disaster caused by the recklessness of the oil industry that requires expanded governmental oversight, improved legislations and regulations.

Problem Definition: Disaster, Accident

Constructions of the Santa Barbara oil spill is consistent with legislators' interest in legislation. Some senators construct the oil spill as a disaster. For example, Senator Muskie (D-Maine) described the oil spill problem as a "disaster that underscores the need for careful site selection" (p. 267). He also testified that the spill represented a "justification for broadened Federal responsibility" (p. 267). Senator Cooper (R-Kentucky) described it as "a terrible disaster" (p. 279) and hoped that the damage is not "irreparable." While Senator Baker (R-Tennessee) constructed the spill as an "accident" (p. 346) that needed further investigation before drilling was resumed in the Channel. According to Lakoff and Johnson (1980), constructing experiences, events such as oil spills as "disaster" renders them understandable as "objects" that can be picked apart and treated as discrete entities. Like other witnesses, senators' use of "ontological metaphors" works to identify aspects of the event and make it comprehensible. "Ontological metaphors...are necessary for even attempting to deal rationally with our experiences" (Lakoff and Johnson 26).

Victims: Californians, Business Losses, Beautiful Coastlines

Senator Cranston (D-California) constructed California residents as the primary victims of the event due to potential losses to tourism and recreation. For example, he testified that Californians bear most of the burden with regard to the spill while the rest of the nation stands to benefit from profits related to Federal oil drilling in the area. "[I]t seems to me that the people of California bear 100 percent of the burden that comes out of this unfortunate development. The threat is posed to their beaches, their harbors, their boats, and their beautiful environment along the coast" (p. 364). Similarly, Senator Muskie (D-Maine), argued "To the people who live in the affected area, the spill is a very real threat" (p. 267) suggesting that proximity to the event makes

it real. "Victims" of the oil spill are "people who live in the affected area" who "bear 100 percent of the burden" to "their beaches...harbors...and their beautiful environment." Predictably, constructing victims as Californians is consistent with Senator Cranston's interest for constituent support.

Moreover, some testimony constructs the victims as the Santa Barbara coast. Senator Muskie (D-Maine) agreed, "This is one of the most beautiful coasts west of the Maine coast" (p. 279). Similarly, Senator Cooper (R-Kentucky) testified that he regards it as "one of the most beautiful areas in this country" (p. 279). Constructing the damage as isolated to a particular place illustrates the use of what Stone (1997) refers to as the "container" (see also Lakoff and Johnson 1980) metaphor, or the idea that the problem is contained in a fixed space. Implied in both Cranston's and Muskie's testimony is that the environment is not communal property, but owned by Californians. Furthermore, constructing victims as people and particular places renders the problem controllable and contained (Stone 1997).

Villains: Careless Oil Industry, Complex Systems

Stories observed in senators' testimony construct the oil industry as responsible for the spill. Senator Muskie's (D-Maine) comments reveal frustration with the suggestion that industry executives were ignorant and lacked experience and counters with testimony that constructs ignorance as avoidable. "I find it rather incredible that those in the business would say that it was an unpredictable risk" (p. 375). And Senator Boggs (R-Delaware) asked Mr. Hartley at different times about what the company knew about the geographic vulnerability in the Channel. "What I want to get in the record if possible is your knowledge, your company's knowledge of the seismographic knowledge of this particular area in preparation for your drilling" (p. 340). The implication in these testimonies is that Union Oil was aware of the risk and proceeded to

drill anyway. Such representation is consistent with the committee's interest in assigning culpability for the spill.

Related to the stories that situate cause as due to the avoidable ignorance of the oil company are those stories that suggest the cause is due to institutional barriers that prevent the sharing knowledge. Some testimony suggests that knowledge is often produced for particular audiences and the sharing of such knowledge depends on permissions and protocols. For example, in an exchange between Senator Eagleton (D-Missouri) and Mr. Gutermuth, testimony implies access to particular reports is privileged. Specifically, Mr. Gutermuth testified about a report that focused on problems in the outer continental shelf which he described as "voluminous" and contains "a complete evaluation of our problems on the Outer Continental Shelflands" (p. 391). But it was only produced for the Public Land Law Review Commission and as such is proprietary

When Senator Eagleton asked whether a copy of the report can be made available for congressional staff, Mr. Gutermuth's reply suggests that it would have to be obtained from the Commission. Specifically, Mr. Gutermuth testified "There is a summary, but it is only available to the members of the Advisory Council and to the commission itself" (p. 391). This testimony is undergirded by the belief that knowledge is prioritized, and privileged for some audiences and not others. Implicitly, Senator Eagleton blamed the Wildlife Institute for not sharing what it knew about vulnerable geological conditions that led to the oil spill. In summary, testimony constructs the notion that there are institutional barriers to knowledge production which works to construct cause as so complex so as to diffuse or deflect responsibility. Stone (1997:194) refers to these types of stories as "far more complex than can be contained in the table." Importantly,

complex systems stories work like accidental causal stories in that no one person can be held accountable in complex systems involving transactions between multiple individuals and groups.

Senator Muskie's comments construct this complexity: "The whole impression that I get from the reactions to this incident are: 1) that it was not anticipated by anybody; 2) that there is strong indication that perhaps it should have been anticipated because of the geological nature of the area; 3) that when the crisis came, no one was really prepared to deal with it or had arranged for standby preparations to deal with it effectively; and 4) that legal responsibility for it is not yet very clearly fixed" (p. 326).

Solutions: Study and Investigation, Legislation

Constructions of solutions are linked with causal definitions of the problem. In the main, Senate testimony constructed the oil spill problem as one of avoidable ignorance. Not surprisingly, Senator Baker (R-Tennessee) stated "[W]e would have to take into account the geological history and the likelihood of seismic accidents or other geological factors which would bear on the desirability or the undesirability of leasing a particular area" (p. 296). As observed in previous stories, rendering the oil spill problem as manageable through the collection of facts and information is rational or reasonable in the polis (Stone 1997). Constructing the oil spill and future oil spills as affecting "particular area" is as Stone might argue appropriate to the metaphor of "containment." With more knowledge about areas in the Outer Continental Shelf, oil spills can be avoided. Furthermore, particular areas can be evaluated as desirable or undesirable as the testimony of Senator Baker suggests. In terms of how policy proposals work, the prescription for knowledge gathering works to make the problem and its solution knowable and is consistent with what Stone (1997) calls the "rational ideal." "The rational ideal, in sum, offers a vision of society where conflict is temporary and unnecessary, where force is replaced

by discussion, and where individual actions are brought into harmony through the persuasive power of logic and evidence" (Stone 1997:305).

Senators' causal stories also construct the problem as due to complex systems which make assignment of blame and responsibility difficult as Senator Muskie's (D-Maine) comments suggest when he claims to be unaware of "any quantitative way...for dividing the money damages" unless the oil industry operator is held "absolutely responsible" (p. 382). Arguably, in complex events like oil spills it is difficult to construct "absolute responsibility." Union Oil is not constructed as "willfully negligent" – that is, the consequences (oil spill) of actions (drilling) were not intended. It is not surprising that the lack of a clear villain (one who intended to create harm) in Santa Barbara oil spill stories leads to constructions of solutions that are aimed at preventing oil spills from happening in the future. As Senator Muskie's comments suggest, "There is no question but what our policies in this country tend to be crisis oriented, but nevertheless we do have to take advantage of hindsight to avoid trouble in the future" (p. 326). According to Lakoff and Johnson, the use of "crisis-oriented" to describe policies serves the purpose of setting goals and motivating actions (1980:27). The emphasis in Senator Muskie's comment is on learning from mistakes.

In summary, the causes of the oil spill are contested among diverse storytellers (see Table 4). Analysis of stories about the Santa Barbara oil spill as told in the first Senate Hearing show how actors use narrative strategies and tools such as synecdoche, numbers, and metaphors to protect their interests. Stories attempt to assign blame and responsibility as well as to deflect. In the next section, I explore diverse stories for taken-for-granted assumptions that hold them together and discuss underlying morals of stories told.

Table 4: Summary of Causal Stories by Diverse Storytellers in Santa Barbara Oil Spill

	Santa Barbara	Oil Industry	Environmentalists	Senators
	County Reps	-		
Causal	Avoidable Ignorance	Accident of Fate/	Avoidable Ignorance,	Avoidable
Story(ies)		Unavoidable	Complex Systems	Ignorance/ Complex
		Ignorance		Systems
Problem	Tragedy	Accident of Fate,	Catastrophe, Synecdoche	Disaster, Accident
Definition		Not a Disaster		
Victims	Santa Barbarans,	Union Oil	Wildlife, Beaches, Birds	Californians,
	Residents, Tourists,			Business Owners,
	Businesses,			Coastlines
	Aesthetic beauty			
Villains	Careless Industry,	Federal Government	Careless Federal	Careless Industry,
	Federal Government		Government, Industry	Complex Systems
Solutions	Stop drilling, protect	Improve cleanup	Investigation,	Investigation,
	beauty	technologies, Learn	Organizational change,	Legislation
	-	from experience	Operator fines, Stop	_
			domestic drilling and	
			import oil from abroad	

Discussion of Findings

So far I have explored testimony about the Santa Barbara 1969 oil spill for how witnesses and senators construct stories that attempt to explain the causes, consequences and prescriptions for resolution. The main plot of the story was that there was an explosion on Union Oil's platform A, which resulted in approximately three million gallons of oil spilled into the Santa Barbara Channel. In this socio-cultural context, there was no previous experience with offshore oil spills and offshore drilling was considered a new and somewhat untested technology. The Santa Barbara oil spill was the first offshore oil spill in America. Testimony constructs the cultural climate as divided between support for oil development due to the abundance of the resource in California and preservation of the natural environment due to the aesthetic beauty and marine life. Witness testimony constructed the victims of the spill to be local residents and business owners, wildlife, fish, birds, seals and other marine life, and the oil company as well (a victim of bad luck). Furthermore, the "beautiful environment along the coast" was considered a victim of the spill.

Attempts to explain the cause of the event first centered on the notion that the area in which Union Oil was drilling was geologically vulnerable and unstable. For some, the spill occurred due to an act of God and could not have been anticipated. However, conflicting stories suggested that industry operators and the Federal Government knew about the geographic conditions and drilled anyway situating them as the greedy villains who were out to capitalize on the rich oil reserves despite the risks. Other causal explanations implicated the collective lack of knowledge about drilling technology. Representatives from Santa Barbara pointed the finger at the interior department and oil industry experts who promised California residents and officials that they had fool proof shut off devices in the event something goes wrong. Yet, something did go wrong and apparently the technology was not fool proof. Further complicating the picture was a companion lack of clean up or response technology. The explanation offered in testimony was again – no one knew or could anticipate the event, so they could not prepare. The blame is placed on the lack of knowledge and implicates institutional barriers that obfuscate the ability or efforts to know.

In the end, witnesses propose solutions to the problem that are informed by various problem and causal definitions. There is an emphasis placed on learning from the event with prescriptions for more study and investigation about geological conditions, about oil drilling capabilities and spill prevention technologies. Further witnesses recommend restructuring the decision-making processes to facilitate knowledge sharing and transparency. And it was suggested that a Government agency be created to draft regulations the purpose of which would be to prevent another oil spill from happening. Finally, prescriptions focused on holding 'polluters' financially accountable for compensating victims for losses and damages.

Underlying Morals

Underlying morals of the story are that Santa Barbara is too pretty to drill. One prescription was to import oil from other countries and save domestic resources until we absolutely need them. What we need to do is develop more knowledge about geography and technology. Further we need to fix institutional barriers that prevent transparency and knowledge sharing across disciplinary, institutional, organizational boundaries. In short, contesting causal stories are linked with prescriptions for redress. But as Stone (1997) argues, there are predictable underlying storylines among the contesting details. There is the "story of decline" (and variants) which suggests that the policy problem represents that everything will go downhill unless certain policy proposals are considered. The other broad story line is the "story of helplessness and control" which suggests that the oil spill problem is bad and we thought it was out of control, but there is hope. In general causal stories illuminate the links between interests and ideas that tell us something about what is assumed or taken-for-granted about the world. In the following paragraphs I make conclusions with regard to underlying beliefs that undergird stories about the Santa Barbara oil spill.

Disasters are Big, Visible, and Deadly

Implicit in constructions of the Santa Barbara oil spill problem are taken-for-granted notions about the types of problems we should worry about, the types of people and organizations that should be held accountable and the types of solutions that should be implemented to respond to the problem. As Stone (1997) argues, these narrative constructions are packed with normative assumptions. Some speakers referred to the spill using terms such as "disaster," "catastrophe," "tragedy" because of the perceived contamination of the beautiful Santa Barbara coast.

It is well documented in social constructionist literature that the use of hyperbolic representations of problems is necessary in order to draw attention to the matter, especially if the goal is to do something about it (Loseke 2003) whether that is to legislate or regulate in the area of oil drilling practices, or to eliminate it altogether. For example, Senator Muskie, chairman of the Subcommittee on Air and Water Pollution of the committee on Public Works clearly formed his interest in water pollution legislation. Other speakers, such as Mr. Clyde of Santa Barbara County board of Supervisors and Mr. Cutler of the Wilderness Society constructed the prescription that we cease drilling in "scenically and biologically valuable areas" and import oil from abroad instead. Such representations reveal underlying moral assumptions about the importance of nature and aesthetic beauty.

Broadly, causal stories that construct the oil spill as a disaster or tragedy follow what Stone (1997) refers to as the "story of decline" narrative. As Stone (1997:138) argues, "This story usually ends with a prediction of a crisis." If actors continue to drill in valuable areas, more oil spills are likely to follow. Another broad type of narrative is the "story of helplessness and control" which constructs the oil spill as an accident of fate that can be changed or controlled through human agency (Stone 1997). Mr. Hartley, testifying on behalf of his oil company, formed his interest in deflecting responsibility for the spill when he referred to the event as an "incident" or "accident" but not a "disaster" because nobody was killed. Indeed, Mr. Hartley reframing the event as incident and not disaster represents a hopeful story that the spill can be controlled.

Interestingly, from the perspective of some conservationists, calling the Santa Barbara oil spill a disaster obscures other environmental problems that are less visible and less dramatic.

This exemplifies what Stone (1997) considers another version of the "decline story."

Specifically, some conservationists construct the broad story line of "change-is-only-an-illusion" when they argue that treating the oil spill as a disaster is wrong. As Mr. Gutermuth stated, we get all "hot and bothered about a small stretch of ocean and pay little attention to the serious pollution matters that have been going on in all of our waters throughout the continent." Arguably, Mr. Hartley's comments may serve to deflect blame and responsibility from his organization to avoid potential liabilities, and regulation that may curtail his organization's practices. And the comments of conservationists may serve to draw attention to less visible water-quality related problems.

Taken together, stories of the Santa Barbara oil spill as an incident or accident reveal underlying assumptions about what qualifies as a disaster or catastrophe – that which causes death to humans, that which is visible, and that which occurs in aesthetically beautiful places. This supports what scholars of disasters have argued, that there is a tendency to regard events as disaster only when they are acute, located in a particular time and place and result in human death. It is toward these types of events that actors are compelled to act with urgency (Clarke 2006, Steinberg 2006, Tierney 2007). The emphasis on Santa Barbara as a unique place that advocates feel should be off limits to oil drilling practices also illuminates taken for granted assumptions about nature more generally. As testimony suggests, we lease some parcels of land for drilling, but not others. We implement zoning controls in some communities, but not others. In short, there is an underlying belief that nature and its embedded resources is not a universally held public good, but a commodity that is compartmentalized, fenced off, and economically valued (Fourcade 2011).

Some People Should Know Better

Representations of the Santa Barbara oil spill also reveal assumptions about knowledge and knowledge production. Causal stories about the Santa Barbara oil spill construct blame and responsibility from particular perspectives. Witnesses testifying on behalf of the Santa Barbara community blamed the oil spill on the greed and carelessness of the Federal Government and the oil industry for being "hell bent" to lease parcels and drill for oil in "scenically" important places. Witnesses testifying on behalf of the principal operator – Union Oil deflected assertions that the company or the government was careless in its oil drilling activities. The implication in testimony was that oil operators and government officials did the best they could with the knowledge they had at the time. Union Oil's causal story suggests that the event was an accident of fate and that the oil spill could not have been anticipated. Mother Earth is unpredictable.

Despite different causal versions of the story offered in testimony, what stands out is an underlying assumption that some people are expected to have knowledge given their social position. Laypeople are not expected to know about the risks related to oil drilling and production. But experts are. Representations of Santa Barbara residents as victims who were not responsible for the harm they experienced are predicated on assumptions that equate ignorance with absolution. On the other hand, representations of the oil industry and the Federal Government as villains illuminate moral assumptions about people who are expected to know better. Testimony suggests that the oil industry and the Federal government knew or should have known about the potential risks involved in drilling off the Santa Barbara coast, but ignored those risks in order to capitalize on the abundant oil supply.

This exemplifies another version of the control story or the "conspiracy story."

According to Stone (1997:143), the conspiracy story is visible in plot shifts that show control of

a situation or problem "has been in the hands of a few who have used it to their benefit and concealed it from the rest of us." Conspiracy stories also reveal underlying morals with regard to people and knowledge. With all the study and exploration of geological areas prior to signing leases to drill, the expectation is that "people with technical know-how" should have known about the risks. Several observers have pointed out that in social problems claims-making there is a "hierarchy of credibility" (Loseke 2003) that suggests some people are more credible and believable than others. In my view, representations also reveal what may be a hierarchy of liability as well. This hierarchy of liability is linked with respective social positions within institutional organizational arrangements. People who are expected to know, who are credited as having knowledge and expertise given their social position as expert or chief executive are also expected to predict and avoid problems related to oil extraction and production. The rest of us are exonerated from responsibility due to our ignorance of technical lease negotiation practices and beliefs in sophisticated technological oil drilling processes.

We Have the Technology

Related to assumptions about knowledge and credibility are assumptions about technological advancement in general. There is ample testimony calling for more study and investigation to improve technological processes. Again, illustrating the broad policy narrative of control and conspiracy, witnesses representing California residents argued that they trusted the oil company operators were to be prepared. Testimony suggests that members of the lay public were assured by industry operators and the Federal Government that there were "fool proof shutoff devices." Yet, as the spill demonstrated, the shutoff devices were not fool proof. Furthermore, testimony suggests that there was a gross lack of technological capability to respond to the event.

Accordingly, prescriptions for redress focus on the development of better understandings of geological spaces and technological capacities so that another spill event never happens again. The underlying belief is that the development of innovations is possible and is tantamount to progress. Stories emphasizing technological capabilities to prevent oil spills are hopeful in that they promise that a situation is controllable (Stone 1997). "Stories that purport to tell us of less control are always threatening, and ones that promise more are always heartening" (Stone 1997:142). Assumed is the idea that we can and will develop more sophisticated knowledge about oil extraction and production followed by the assumption that this knowledge will prevent future disastrous spills. Stone (1997:168) suggests that the call for measurement or scientific investigation is persuasive and implies "the first step in promoting change." Implied in prescriptions to study geology more carefully, to investigate more stringent drilling practices is the suggestion that we can study and with more study, things will change for the better.

Conclusion

In conclusion, stories about the Santa Barbara oil spill offer constructions of the oil spill problem, its causes and consequences as well as prescribed solutions to remediate and prevent oil spills from happening in the future. Predictably, symbolic representations are linked with material interests of the witnesses who are not independent actors, but representatives of places, organizations, ideals (Stone 1997). A narrative analysis of congressional testimony illuminates the ways interests and ideas are held together by normative assumptions about how the world should work. By unpacking contesting explanations of the Santa Barbara oil spill, I interpret how testimony constructs the type of problem that should garner the attention of policymakers, the types of causal agents that should be held responsible as well as the types of solutions that are feasible. Further, I show how storytelling in the polis is predictable in terms of types of stories

told. In the end, I argued that visible in causal stories and broad policy narratives are underlying morals or taken-for-granted assumptions about how the world should work. In short, we believe oil spills are problems when they are big, visible and occur in sacred places. We believe that there is a hierarchy of liability that exonerates some people from responsibility but implicates others due to their location in the wider social hierarchy. And finally, we believe we can fix it. We have, or can develop, the technology.

CHAPTER FIVE: STORIES ABOUT THE EXXON VALDEZ OIL SPILL

In the previous chapter, I explored stories about the Santa Barbara oil spill as constructed and told in U.S. Senate congressional testimony that attempted to make sense of the event. Through congressional testimony, contesting definitions about the type of problem represented by the oil spill as well as who or what caused it and what should be done illuminated links between interests and ideas. In short, testimony constructs taken-for-granted assumptions about the types of problems that garner attention, types of causal agents as well as types of solutions that are linked with respective interests of witnesses invited to testify before the Senate committee. This chapter unpacks stories about the Exxon Valdez oil spill that occurred in Prince William Sound, Alaska in 1989 as told in Senate Committee on Commerce, Science and Transportation which held the first hearing to investigate this oil spill.

On March 24, 1989, the Exxon Valdez tanker ran into Bligh reef, 25 miles from the port of Valdez in Prince William Sound causing what was then the biggest oil spill in U.S. history (Picou, Gill, Dyer and Curry 1992). Scholars have argued that the Exxon Valdez oil spill was devastating not only for the natural environment, but was also socially disruptive (Dyer, Gill and Picou 1992). The tanker crash caused approximately 11 million U.S. gallons of crude oil to spill into the Prince William Sound (Paine, Ruesink, Sun, Soulanille, Wonham, Harley, Brumbaugh and Secord 1996). Members of the Committee on Commerce, Science and Transportation and invited witnesses met about two weeks later on April 6, 1989 to explore the causes and consequences of the spill as well as to determine what should be done so that another event like this does not happen again in the future.

Institutional Context

As previously discussed, policy narratives are shaped by contexts (Jones and McBeth 2010). While Santa Barbara testimony occurred in the institutional context of the U.S. Senate Subcommittee on Air and Water Pollution of the Committee on Public Works, the Exxon Valdez event is storied in the U.S. Senate Committee on Commerce, Science and Transportation. (See Table 5). The chairman of the Senate committee invited several witnesses who testified at the hearing. The composition of speakers in the Exxon Valdez hearing differs from speakers invited to testify before the Santa Barbara hearing. In the Santa Barbara hearing there were several witnesses speaking on behalf of environmental organizations as the original agenda of the hearing was to evaluate water pollution-related bills. But, as discussed, the agenda was shifted with the "triggering event" of the Santa Barbara oil spill. In contrast with Santa Barbara, the Exxon Valdez hearing was comprised of several witnesses speaking on behalf of governmental agencies. This is important from a narrative perspective as Stone (1997) suggests, in that sides in policy debates attempt to influence the definition of events, and consequences.

It is important to remind the reader that these were two different types of spills at two different times and in different places. Santa Barbara's spill was offshore in the outer continental shelf and allegedly brought about by a combination of factors including unstable geological conditions, untested drilling technologies, and lack of experience with oil spills. Exxon Valdez on the other hand seemed on the surface to be more straightforward. There was a tanker, a captain who had consumed alcohol and passed out on his post when the tanker crashed into Bligh Reef resulting in the release of approximately 11 million gallons of oil into Prince William Sound. Fundamentally, these differences influence the types of stories told about the events.

constructed as inadvertently caused by the recklessness of the oil industry, and the U.S. Coast Guard.

Table 5 – Alphabetical List of Senate Members of the Committee on Commerce, Science and Transportation

Name	Political Party
Lloyd Bentsen	D-Texas
John B. Breaux	D-Louisiana
Richard H. Bryan	D-Nevada
Conrad Burns	R-Montana
John C. Danforth	R-Missouri
J. James Exon	D-Nebraska
Wendell H. Ford	D-Kentucky
John F. Kerry	D-Massachusetts
Albert Gore, Jr.	D-Tennessee
Slade Gorton	R-Washington
Ernest F. Hollings (Chairman)	D-South Carolina
Daniel K. Inouye.	D-Hawaii
Robert W. Kasten, Jr.	R-Wisconsin
Trent Lott	R-Mississippi
John McCain	R-Arizona
Bob Packwood	R-Oregon
Larry Pressler	R-South Dakota
Charles S. Robb	D-Virginia
John D. Rockefeller IV	D-West Virginia
Ted Stevens	R-Alaska

I do not propose that my comparison of storied events are "apples to apples" so to speak, but are still comparable given that each hearing is the first published, Senate account of "oil spill" events. Arguably, stories are shaped and constrained by the types of witnesses who tell stories as well as the different institutional contexts in which stories are told.

Along with democratic and republican senators, invited witnesses included government experts and agency representatives as well as the industry representative from the Exxon Corporation. (See Table 6.)

Table 6 – Chronological List of Witnesses – Exxon Valdez

Name	Organization	Date
Honorable Samuel Skinner	Secretary, Department of Transportation	April 6, 1989
Captain Larabee	U.S. Coast Guard (accompanied Hon. Skinner)	
Honrable William K. Reilly	Administrator, Environmental Protection Agency	
L. G. Rawl	Chairman of the board and Chief Executive Officer, Exxon Corp.	
Admiral Paul A. Yost	Commandant, U.S. Coast Guard	
Captain Ken Thompson	U.S. Coast Guard (accompanied Adm. Yost)	
Captain Dave Spade	U.S. Coast Guard (accompanied Adm. Yost)	
Dr. William E. Evans	Under Secretary of Commerce for Oceans and Atmosphere NOAA	
Dr. Charles N. Ehler	Director, Office of Oceanography and Marine Assessment (accompanied William Evans)	
Thomas A. Campbell	Deputy General Counsel (accompanied William Evans)	
Steve Robinson	Deputy Director, Fish and wildlife Service, Department of the Interior	

Causal Stories

As with my previous case about the Santa Barbara oil spill, I analyze testimony according to Stone's (1997) framework for documenting causal stories that construct blame and

responsibility as well as prescriptions for redress to highlight how storytellers construct the event in accordance with their interests. Specifically, I note how unique and diverse storytellers construct the Exxon Valdez oil spill problem as due to human error or purposeful actions of individuals and groups that resulted in unintended consequences. I also observe how those charged with responsibility construct innocence or deflect blame and responsibility by suggesting they were just following orders, and that the orders were flawed. I note how competing stories push and pull the definition of the event from the realm of accident to the realm of intent (Stone 1997) in accordance with particular interests of storytellers.

I explore testimony to observe how witnesses construct stories about the Exxon Valdez oil spill. As with the Santa Barbara oil spill story, I use narrative analysis to interpret testimonies for how they construct the setting, plot, characters and morals of the story that reflect diverse interests of the storytellers. Then, in my discussion of findings, I interpret diverse stories told for how they illuminate the taken-for-granted assumptions or widely held beliefs that shape policymaking. I argue that by delineating the ways actors tell stories about events such as oil spills I can observe the way culture works in policymaking.

Like the previous chapter, I organize causal stories according to the interests of speakers for how they construct the problem, victims, villains and solutions. Specifically, I analyze stories from senators, government bureaucrats and the Exxon Corporation.

Senators: Avoidable Ignorance, Reckless Operator, Complacent Industry and Federal Government

Unlike the Santa Barbara oil spill hearing in which only the chairman of the subcommittee presented an opening statement, several senators provide opening statements in the Exxon Valdez oil spill hearing. In opening statements and in exchanges between senators

and witnesses, senators construct causal stories that are linked with their respective interests.

Besides the chairman of the committee (Senator Hollings, D-South Carolina), three other senators (Senator Stevens, R-Alaska; Senator Packwood, R-Oregon; and Senator Gorton R-Washington) provided oral statements before witnesses were called to testify. Chairman Hollings was the first to speak and set the grounds for the hearing: "We have convened this hearing to assess the impact and implications of the recent oil spill by an Exxon tanker in Prince Williams Sound near Valdez, Alaska" (p. 1).

Senator Hollings's opening statement constructs his interests in determining "what government action is required to prevent or minimize similar disaster in the future, whether in Alaska or Elsewhere" (p. 1). He went on to say that the extent of losses are not known and also suggested that blame and responsibility lie with the operator, Captain Hazelwood of the Exxon Valdez, Exxon officials, who were "so slow to respond," the Alyeska Pipeline service which was "so poorly prepared," and the. U.S. Coast Guard for failing "to perform an immediate drug test" on Captain Hazelwood. Here, Senator Hollings constructs the problem as due to human culpability rather than accident or fate making the problem amenable to solutions such as fines or penalties (Stone 1997).

Senator Stevens (R-Alaska) constructs his interests in support of the oil pipeline in testimony that suggests opposition to the pipeline is partly responsible for the spill. "[T]hose of us that voted for the oil pipeline in 1973 were assured that the latest technology would be utilized to prevent oil spills...We feel almost abandoned by the Federal government and disturbed by the lack of supervision given to the preparation of plans for disaster recovery" (p. 4). Senator Stevens, too, constructs the problem as due to human culpability, and implicates the Federal

Government for their lack of supervision. Using the word "abandoned" constructs supporters of the oil pipeline as victims of the oil spill.

Senator Packwood (R-Oregon) constructs his interests in protecting the Portland coast by stating his opposition to moving the crashed vessel to a Portland port. "We cannot allow the Valdez to make the trip out of Prince William Sound and to Portland, or to any other port without ensuring that the vessel is seaworthy...The Valdez disaster raises further questions about how best to balance the need for resource development with that of protecting our unique coastal environments" (p. 6). Like Senator Gorton, Senator Packwood constructs the importance of the Portland coast using the container metaphor. Constructing a boundary around Portland implies values and substances that are contained within Portland in particular, Oregon in general. The coastline is constructed as uniquely valuable and in need of protection.

And Senator Gorton (R-Washington) constructs his interests on behalf of Washington state constituents and the banning of supertankers in Washington-owned waters. "After Washington State's own oil spill affecting the Olympic National Park, I would hope that the Department of the Interior is not wasting a moment of time in preparing for potential impacts of the Valdez spill on some of our nation's most ecologically valued public lands. I am now more satisfied than ever that I worked to make permanent the supertanker ban in Puget Sound" (p. 8). Here, Senator Gorton uses the oil spill as a cautionary tale or what Stone (1997) might regard as "synecdoche" in support of his position on supertankers, simultaneously constructing natural spaces as compartmentalized. Identifying the Puget Sound as a special place can again be understood as an illustration of the "container" metaphor (Stone 1997, Lakoff and Johnson 1980). Indeed, Lakoff and Johnson (1980:29) regard the human act of defining a territory as "an act of quantification."

While the Santa Barbara oil spill was considered the first in U.S. history, the Exxon Valdez oil spill had precedents. As the chairman of the Committee on Commerce, Science, and Transportation, Senator Hollings (D-South Carolina) stated, "Bear in mind that this is far from the first spill to impact our coastlines" (p. 2-3). He went on to enumerate several other spills had occurred both within the United States and in foreign waters. Specifically, Senator Hollings (D-South Carolina) mentioned the Argo Merchant barge that spilled "about 221,000 gallons" on December 22, 1988 as well as the Campeche oil spill of 1979 which occurred in the Gulf of Mexico north of Yucatan Peninsula which "resulted in the spill of 155 million gallons – the largest in history." Later testimony refers to Amoco Cadiz oil spill that occurred off the coast in Brittany in France (p. 84). Senator Hollings concluded his summary of previous spills with comparative estimates of cleanup costs and liabilities to construct his interest in protecting the Arctic National Wildlife Refuge from oil exploration. As such, Hollings like Senator Gorton uses the oil spill as a synecdoche for other issues related to oil development (Stone 1997). *Problem Definition – Disaster, Tragedy*

Explicitly, most senators construct the Exxon Oil spill as a "disaster." Senator McCain (R-Arizona) constructed the Exxon Valdez oil spill as "greatest ecological disaster that we have experienced" (p. 29). Senator Hollings (D-South Carolina) further constructs the event as an "historic tragedy" (p. 3), Senator. Stevens (R-Alaska) used a metaphor to capture the magnitude of the problem and goes so far as to equate the event as tantamount to an atomic bomb: the spill is a "disaster which ranks with Hiroshima" (p. 4). Finally, Senator Gordon (R-Washington) referred to the Exxon Valdez oil spill as "[P]erhaps the most severe man-made disaster, environmental disaster in our history" (p. 58).

The event is given more meaning with the use of numbers in testimony that constructs the size of the spill and its environmental impacts. As has been well documented by social constructionist scholars who study social problems, problem definition not only encompasses constructions of the type of problem, but also the scope or size (Loseke 2003). The point is that numbers have symbolic meaning. Several witnesses provided estimates that provide such specificity to the overall magnitude or size. For example, Senator Hollings (D-South Carolina) argued that the spill was estimated to be "nearly 11 million gallons" endangering a "\$100 million local fishing industry" (p. 1). This testimony links the oil spill problem (11 million gallons) with consequences (\$100 million in fish). Similarly, Senator Stevens (R-Alaska) estimated that the tanker was carrying "53 million gallons of oil...and as we all know...12 million gallons, approximately, leaked out in less than five hours" (p. 4). And Senator Packwood (R-Oregon) testified "the spill of more than 10 million gallons of oil in Alaska's Prince William Sound raises a multitude of questions about the transport of oil from the Alaska pipeline and our ability to respond to accidents of this magnitude" (p. 6). Referring to the oil spill as an entity that "raises" questions illustrates the use ontological metaphors that serve the purpose of "setting goals and motivating actions" (Lakoff and Johnson 1980). Here, the goal is call attention to a related policy issue regarding the Alaska pipeline.

Furthermore, senators construct the oil spill as a disaster because of where it happened. As Senator Hollings testified "[T]he Sound has a particularly diverse population of birds, fish and other animals – the result of a subarctic habitat which includes fresh water from melting glaciers and saltwater from the sea, a mountainous coastline overlooking sandy beaches, and pine forests sheltering productive marshlands" (p.1-2). He went on to say, "Although larger

spills have occurred, this disaster is unique because it is in a body of water ringed by islands and relatively isolated from the open sea" (p. 2).

The oil spill is constructed as a disaster that is large in scope therefore something that must be redressed in policy proposals. Constructing the oil spill as a disaster is linked with politicians' interests to define government responsibility, protect coastlines, to justify the development of oil pipelines, to transport and deliver oil and to justify bans on supertankers. By using quantities and estimates, senators construct the oil spill as a particular type of problem as well as damages in terms that can be addressed with policy instruments. According to Stone (1997) counting also implies that the situation can be controlled. There is an underlying assumption in numbers that the oil spill is "an identifiable entity with clear boundaries" (Stone 1997:173). Senators' testimony not only constructs the size and extent of the oil spill but also who or what is harmed.

Victims: Prince William Sound, Marine Life, Tourists, Residents

In testimony by senators, victims are constructed as the particular place in which the oil spill occurred (Prince William Sound), fish and wildlife as well as people (tourists, residents). For example, the Chairman's opening statement, describes the Prince William Sound as victimized by the spill, "The tanker ran aground in what is described as one of the richest concentrations of wildlife in North America" (p. 2). He further constructs the environment as special because of its "mountainous coastline overlooking sandy beaches and pine forests sheltering productive marshlands" (p. 2). This is not surprising. As Lakoff and Johnson (1980:30) theorize, "We use ontological metaphors to comprehend events." Chairman Hollings (D-South Carolina) constructs the Prince William Sound as a unique and discrete area which serves to quantify it in terms of substances it contains such as mountainous coastlines, sandy

beaches and pine forests as well as productive marshlands. These substances are constructed as productive and valuable.

Other testimony illustrates the use of category expansion in the construction of victims as potentially anyone and everyone. Constructing what Stone (1997) regards a "story of decline" as a result of the oil spill, Senate testimony draws attention to the birds, fish and marine life as well as coasts and rivers that have been harmed, killed or contaminated because of the spill. Examples include, "Many birds, fish, and marine mammals are killed by the toxic aftermath of an oil spill" (Senator Hollings, D-South Carolina, p. 3). Expanding the category of victims beyond the immediate losses to wildlife, Senator Stevens (R-Alaska) lamented "All of us have a feeling of grief, as we have seen our marine life die, our fisheries contaminated, our recreation areas flooded with oil and our people and fishing, tourism, transportation and recreation forced out of work" (p. 5). Similarly Senate Packwood testified "We have already seen a tragic loss of animal life. Worse yet, the full impact of the spill on animal life, the food chain and the environment in this sensitive ecosystem will not be realized for many years to come" (p. 6). And Senator Gorton (R-Washington) testified, "We have an immediate impact on the herring industry, whose season has now been cancelled, and a serious threat to the salmon industry. It is not only the fishermen who will be impacted, but the processors will also suffer" (p. 7).

Linking current and future losses related to marine life, birds, and fisheries with recreation, fishing, tourism and the nation's food supply can be understood as expanding the category of victims to include potentially everyone (Loseke 2003). Casting a wide net of victims and potential victims is a predictable strategy to engender support for action and in this case, financial remediation. Not only is the ecological environment threatened, according to testimony, but people's jobs and livelihoods are at risk. Quantifying the extent of the oil spill in

economic terms is linked with attributions of blame and responsibility (Stone 1997). In Senate testimony, it is clear that the interests are to reimburse victims for losses. As Senator Hollings (D-South Carolina) testified, "It is my understanding that the toll on marine life from the recent disaster is expected to be so immense that the Alaska Department of Environmental Conservation has transported refrigerated tractor-trailers to Valdez to store dead birds and animals; they will be collected by scientists as evidence in anticipated lawsuits" (p. 3). Implied in this testimony is the assignment of guilt. And in the main, senators blame the "reckless oil industry."

Villains: Exxon Oil Corporation, U.S. Coast Guard, Captain Hazelwood, Federal Government/Industry

Like senators in the Santa Barbara oil spill hearing, senate testimony in Exxon Valdez points the finger at the oil industry and others for recklessness. In short, competing causal stories among senators implicate "multiple human decision—makers, and interactions between different parts of a system" (Stone 1997:195) and as such construct inadvertent, yet "complex cause." As Senator Packwood testified, "A whole host of errors led to the grounding of the Valdez on Bligh Reef" (p. 6). First, senators point fingers at the oil industry. Second, they blame the U.S. Coast Guard. Third, they blame the captain of the ship and finally, they blame "general complacency" about a risky process. This is not surprising, as Stone (1997:205) points out, "Any bad situation offers multiple candidates for the role of 'cause.'"

Senator Gorton suggested that the acts of the oil industry are so devastating that they border on "criminal negligence" (p. 7). He testified "I am appalled that an industry such as the oil industry, after having received immense monetary benefits from oil resources, would be so reckless in its preparation for imminent disaster" (Senator Gorton, R-Washington, p. 7).

According to Stone (1997) suggesting that the oil industry would be so careless so as to be criminal is a common strategy to "push" the causal explanation into the realm of intent.

Similarly, Senator Exon's (D-Nebraska) remarks construct the oil company as traitorous and deceitful. In an exchange with the chairman, Senator Exon testifies: "Mr. Chairman, you have made that pronunciation of my name incorrect for ten years now...It is E-x-o-n with one x. I have often said that the other people are the double cross boys" (p. 44). Constructing the Exxon Corporation as the "double cross boys" illustrates the use of "personification metaphors" to construct the oil company as a person and moreover an adversary that can "attack us, hurt us, steal from us" (Lakoff and Johnson 1980:34). Constructing the oil company in these terms "justifies political and economic actions on the part of our government" (Lakoff and Johnson 1980:34). Senator Exon's testimony encourages audience members to feel hatred and condemnation for the "traitorous" company. This is not surprising, according to cultural rules regarding assignment of blame and responsibility, villains those characters who "intended" harm (Loseke 2003).

Stone (1997) points out constructing "intentional harm" stories is "the most powerful offensive position to take, because it lays the blame directly at someone's feet, and because it casts someone as willfully or knowingly causing harm." Exxon oil company is constructed as the villain that acted "with full knowledge of what the consequences would be" (Stone 1997:191). That the company is constructed as ill prepared, reckless, and careless implies that they inadvertently intended harm. The oil company is cast as the oppressor who intentionally caused harm to innocent victims. Such testimony can be read for how it assigns fiscal responsibility. Exxon Corporation is expected to pay.

However, senate testimony also implicates The U.S. Coast Guard. For example, some senators point the finger of blame and responsibility at the members of the Coast Guard who were held accountable for allowing a "convicted drunk" to "get on the bridge and be a captain of a super tanker" (Senator Breaux, D-Louisiana, p. 37). In an exchange between Senator Breaux and Captain Larabee of the U.S. Coast Guard, the Senator blames Captain Larabee for giving a Coast Guard license to an individual who was not qualified due to a record of drunken driving arrests and convictions. "What kind of a system does the Coast Guard have that would allow…a convicted drunk who is undergoing treatment – and I respect that, but how can he get on the bridge and be a captain of a super tanker…?" (p. 37).

Such testimony further constructs the inadvertent causal story of "carelessness." Inadequate requirements of the Coast Guard are implicated in other testimony as well. For example, Senator Hollings's (D-South Carolina) testimony morally condemns members of the U.S. Coast Guard for not doing "the right thing." "Now, that is a pretty bad dereliction on the part of our Coast Guard requirements, that one fellow and one fellow alone is sufficient on a supertanker. (p. 39)."

And some testimony pointed the finger directly at the captain of the ship, "Apparently, Captain Hazelwood lied on his license renewal application regarding criminal conviction (Senator Kerry, D-Massachusetts, p. 36)." Similarly, the captain's culpability is implied in Senator Stevens's (R-Alaska) claims that "As a result of alcohol abuse on board this tanker – the Exxon Valdez – hit the Bligh Reef (p. 4)." However, constructing intentional harm is wrought with difficulty as scholars of social problems have noted (Loseke 2003, Best 2008). There are often alternative explanations or other parties that are blamed for the problem. Captain Hazelwood is constructed not a "bad guy" but a "flawed human" who suffered from alcohol

addiction. And Senator Packwood (R-Oregon) stated, "We can mine coal and move oil and split atoms. We have not yet perfected man. God has not yet perfected man, and I doubt if Congress is going to improve on God's efforts over the years" (p. 28). That is, individual action is a moral responsibility, not a legislative imperative. People are expected to do the "right thing."

Despite, later testimony from Mr. Rawl (CEO Exxon Corporation) that the captain was terminated from his job for violating company policies, senators largely absolve him of responsibility for the oil spill. Indeed, by suggesting that God has not perfected man, the implication is that everyone is flawed, we all make mistakes and Congress cannot do anything about that. Captain Hazelwood is constructed not as a villain who was responsible for causing the oil spill, instead he was constructed as a victim of addiction and the underlying assumption is that while we can perfect systems and processes (like splitting atoms), we cannot "perfect man." Known as the "medicalization of deviance," this strategy effectively deflects attention away from villain construction and expands the category of victims of the oil spill (Loseke 2003).

As earlier stated, Stone (1997:206) argues that contesting causal narratives are not necessarily about finding the true "cause" but about assigning moral responsibility and assessing economic consequences. Senate testimony that suggests the oil spill was the result of carelessness on part of the Exxon Corporation, U.S. Coast Guard and Captain Hazelwood illustrate what Stone (1997:205) refers to as a "struggle over causal definitions" that can be understood as serving the purpose of locating responsibility for the spill with parties who have the ability to pay the consequences. Captain Hazelwood, arguably, does not have the financial wherewithal to pay victims, but Exxon Corporation does.

Indeed, Senator Kerry (D-Massachusetts) constructs the Federal Government and industry operators as careless due to their "complacency." "[I]t seems like there was a complacency in a very risky process where major guarantees had been given to citizens, not just in Alaska...but all over this country about this process" (p. 63). Senator Kerry's remarks construct elected officials and citizens as irresponsible for failing to consider that a "spill of this magnitude" was possible. He and others blame the Federally backed Alyeska plan for setting the industry up to fail. Kerry opined that the Alyeska plan was predicated on the belief that oil spills would not exceed 3.1 million gallons, but the Exxon Valdez oil spill was more than three times that amount, as he expressed, "[Y]ou are beginning with a plan that was faulty and you have got frustrated governors, frustrated environmentalists, frustrated fishermen, who feel like they are without input" (p. 35). Senator Gorton (R-Washington) similarly stated, "The contingency plan drawn by Alyeska Pipeline Company was obviously flawed" (p. 7). Constructing the cause of the oil spill by suggesting that the government and industry failed to observe risks again pushes the problem into the realm of purposeful action. The government and industry are constructed as careless, and their ignorance was avoidable.

In summary, senators' testimony constructs competing causal stories that push and pull against each other in the assignment of blame and responsibility. While there is agreement that the oil company acted carelessly, assignment of blame is complicated by alternative explanations with the role of the Coast Guard, the captain, and interactions between the oil industry and the Federal Government. Not surprisingly, senators construct stories consistent with the interests on behalf of constituents. As Stone (1997) writes, "People choose causal stories not only to shift the blame but to enable them to appear to be able to remedy the problem."

Solutions: Protect Coastal Environment, Fine Exxon Corp., Federalize Response, Ban Supertankers

Senators construct solutions consistent with their respective interests. There are interests to protect coastal environments, protect areas from oil development, assign fiscal responsibility and ban the use of supertankers. Importantly, constructions of causal stories are linked with constructions of proposed resolutions. For example, Senator Packwood (R-Oregon) stated, "The Valdez disaster raises further questions about how best to balance the need for resource development with that of protecting our unique coastal environments" (p. 6). Senator Packwood constructs his interests in protecting the Oregon coast from oil development risks. Alternatively, Senator Hollings (D-South Carolina) constructs his interests in protecting the Arctic. "[W]e must closely examine whether the Arctic National Wildlife Refuge should be explored for future oil supplies" (Senator Hollings, D-South Carolina p. 3). This is not surprising as Stone (1997:207) argues that political actors will use causal stories to support particular agendas. "Causal stories then become mechanisms for linking a desired program to a problem that happens to be high on the policy agenda." Consistent with Lakoff and Johnson's (1980) theories about container metaphors, that the spill happened in a place that is proximate to the Arctic National Wildlife provides for the expansion of the consequences of the event/object to include surrounding land areas.

Senator Exon constructed his interests in holding oil companies fiscally responsible for the spill. He suggested that companies pull together to build a fund for future spills. Senator Exon (D-Nebraska) argued, "There are other oil companies that do not have the resources of Exxon...that we may have difficulty suing or getting money out of. Would it not be wise for us to establish some kind of a cleanup fund" (p. 45)? At issue are fears about an oil company's

ability to pay in the event of another catastrophe. Again, testimony illustrates the purpose to account for economic costs of the event and in this testimony future, similar events.

Related to proposals for legislation to hold the spiller financially responsible for oil spills are those proposals to coordinate response to the spill under the authority of the Federal Government. Known as "constitutional engineering," Senator Stevens' testimony constructs the solution to the problem in a change in bureaucratic structures. Senator Stevens (R- Alaska) stated, "Now we ought to have an emergency group. We have asked the President to declare an emergency under the SBA Act; we have asked now for the Coast Guard to coordinate this effort as it leaves Prince William Sound. Without question it should be a Federal responsibility now" (p. 16). Senator Bryan (D-Nevada) agreed that the Federal Government should assume control, but that "federalizing the effort" should not restrict or limit the financial liability for Exxon (p. 33). Consistent with Stone's (1997) theory that assigning fiscal responsibility is among the goals in policy stories, testimony consistently constructs a concern about who will pay the bill. That is, Senator Bryan suggests that Exxon Corporation should be financially responsible even if the Federal Government (American taxpayers) assumes authority in coordinating the response to the spill.

Furthermore, witnesses called for regulatory bans on supertankers to limit the potential for catastrophic oil spills. Again, causal stories reveal what might be high on a particular politician's agenda. Senator Stevens (R-Alaska) wondered if a change in policy allowing large tankers to transport oil was a bad decision. "Were we wrong to eliminate the smaller ones [tankers] and to have the large ones, so that when we have a spill it is a monster as compared to having a series of smaller ones, potentially?" (p. 20). And finally, Senator Hollings (D-South Carolina) summarized "[T]he question is, whether we go back to smaller tankers rather than the

240,000 barrels, go back to the 74,000 barrel type tankers that we used to have, because we just cannot afford this kind of catastrophe hereafter" (p. 74). The underlying implication is that small spills are better than big spills. And "this kind" of catastrophe can and should be avoided.

Government Bureaucrats (Avoidable Ignorance, Reckless Operator, Complex Systems)

In the Exxon Valdez hearing, several government bureaucrats provided testimony about the oil spill. Like previous testimony among senators, agency representatives construct the problem, causes and solutions consistent with their interests. Included among bureaucrats are: Honorable Samuel Skinner, Secretary, Department of Transportation, accompanied by Captain Larabee, U.S. Coast Guard; Honorable William K Reilly, Administrator, Environmental Protection Agency; Dr. Evans, the Undersecretary of Commerce for Oceans and Atmosphere, who was accompanied by Dr. Ehler, Director, Office of Oceanography and Marine Assessment; Admiral Paul Yost commandant, U.S. Coast Guard accompanied by Captains Ken Thompson and Dave Spade; and Thomas A. Campbell, Deputy General Counsel; and Steve Robinson, Deputy Director, Fish and Wildlife Service, Department of the Interior.

These witnesses construct diverse causal stories that are consistent with their interests.

For example, agents speaking on behalf of environmental interests (EPA, Fish and Wildlife Services, etc.) construct causal stories that implicate the industry and others for carelessness that led to the devastation of natural resources. Whereas, agents speaking on behalf of the U.S Coast Guard and the Department of Transportation construct complex causal stories that deflect blame and responsibility. Recall that members of the U.S. Coast Guard were charged with responsibility in senate testimony for not checking the credentials of the captain and for allowing the supertanker to traverse in ecologically vulnerable seas.

Similar to testimony offered by senators, some agency representatives construct the setting in which the spill occurred as especially problematic, not only for ecological but economic reasons. Predictably, witnesses use "container metaphors" to create boundaries around areas as discrete and special as a way to quantify the extent of the problem (Lakoff and Johnson 1980). For example, some witnesses construct the setting of the spill to be ecologically unique and therefore economically valuable. Dr. Evans, the under-secretary of Commerce for Oceans and Atmosphere of the National Oceanic and Atmospheric Administration in the Department of Commerce testified "The ecology of Prince William Sound is especially vulnerable to an oil spill of the magnitude of Exxon Valdez" (p. 84), because of its "gravel beaches," "limited wave action," and "subarctic temperatures." Further, the administrator of the Environmental Protection Agency (EPA), Mr. Reilly argued "It has occurred in one of the most productive and valuable ecological environments, and one of the most fertile fishing grounds of any in the world" (p. 17). It is not surprising that testimony from agency representatives employed in the assessment and protection of natural environment and resources construct the economic importance of Prince William Sound.

Problem Definition: Catastrophe, Tragedy, Disaster

Like testimony offered by senators, agency representatives construct the oil spill event as a large and expensive problem. Again, using container metaphors, Secretary Skinner of the Department of Transportation estimated the spill volume to be "10 million gallons of crude" (p. 9). He went on to testify, "There is no question that this is a disaster of major import" (p. 9). The comments of Mr. Reilly of the EPA construct the oil spill in hyperbolic terms. Expressly, he argued "This is obviously an environmental catastrophe of the first magnitude. It is a national tragedy for environmental resources of very unusual quality and significance" (p. 17). Mr.

Reilly used the metaphor of earthquake to qualify the extent of the disaster, "[T]he San Francisco Earthquake of ecological catastrophes" (p. 17). This strategy constructs the way the oil spill as symbolic of more diffuse cultural fears (Loseke 2003). In other words, the Exxon Valdez oil spill was "the big one." Further, it illustrates the use of the "horror story" genre as a synecdoche for larger problems (Stone 1997). "Often these stories are not only atypical, but also highly distorted" (Stone 1997:146). The horror story works to "reduce the scope of the problem and thereby makes it more manageable" (p. 147).

The horror story also works to reduce the problem by offering terrific consequences in terms of economic impacts. Dr. Evans of the National Oceanic and Atmospheric Administration quantified the problem in terms of economic impacts. "These commercial fisheries are renewable resources that each year are worth over \$100 million to that community...There are also a number of cruise ships that come into the area, and we do not even have the idea of what the economic impact is going to be on that" (p. 81-2) And Mr. Robinson, the Deputy Director of the Fish and Wildlife Service in the Department of the Interior stated, "The scale of the spill impact is just now starting to become clear to us. Our preliminary beach surveys have found 80 oiled birds, per 100 meters of beach...It is highly unlikely that most of the oil birds can be recovered and cleaned, although we are making every effort to do so" (p. 86). Constructing the oil spill event as an object provides for the ability to scale its composition. The oil spill is viewed as an object, a distinct entity with itemized costs. The use of numbers to contain the event is metaphorical (Lakoff and Johnson 1980). It implies that costs can be repaid.

As has been previously argued, numbers convey meaning (Stone 1997). Constructing the problem in terms of statistics identifies the "agents and factors of control" (Stone 1997:172). For example, quantifying the number of oiled birds constructs the evidence of catastrophe.

Quantifying the part of the beach affected creates boundaries around the area to be controlled. Numbers indicate what is included in the problem and what is not. Oiled birds are included in the problem as are commercial fisheries, jobs tied to tourism and recreation. Testimony not only constructs the type of problem, the size, but who is harmed. Not surprisingly, government agents working on behalf of the natural environment, construct the environment as primary victims of the spill. Whereas government agents working on behalf of the Department of Transportation and the U.S. Coast Guard construct their agencies as victims in stories that deflect blame and responsibility for the spill.

Victims: Fish and Wildlife, Coasts and Rivers, U.S. Coast Guard, U.S. Citizens

Many witnesses testifying on behalf of government agencies construct the natural environment, fish and wildlife as victims. "The oil spill has had adverse and often fatal impacts on many species of wildlife in Prince William Sound...Bald eagles have been observed scavenging oil-killed birds" (Mr. Robinson of the Fish and Wildlife Service, p. 86-87).

Additionally, Dr. Evans of the National Oceanic and Atmospheric Administration testified, "At least five species of threatened or endangered marine mammals frequent the area during some time of the year" (p. 82). Related to testimony that constructs victims as wildlife, are comments that construct the environment in general as vulnerable, innocent and harmed by the spill. As Secretary Skinner of the Department of Transportation suggested, "It is important to recognize that the Valdez spill illustrates dramatically the vulnerability of our coasts and rivers to the continuing threat of oil pollution" (p. 10). Here Secretary Skinner uses synecdoche to construct the oil spill as a justification for legislative attention to natural resources (Stone 1997). The Valdez spill becomes a metaphor or typification (Loseke 2003) for generalized environmental pollution concerns.

Other comments link the loss of wildlife and fish as well as the overall quality of the environment to lost jobs and income for U.S. citizens. "Perhaps most devastating with this event was the timing of the spill...For example, migrating herring are finally in the sound and would be available for harvest...This means that not only lost jobs and income, but also lost export value to the United States" (Dr. Evans - National Oceanographic Association of America, p. 82). This is not surprising again, as social constructionist scholars have argued that constructing victims of policy problems as potentially anyone is effective for engendering support for urgent response to fix or mitigate the problem (Loseke 2003). By constructing the Exxon Oil spill as consequential for the U.S. economy as a whole, everyone suffers. This is a strategy referred to as the "loser's tale" (McBeth, Shanahan, Hathaway, Tigert and Sampson 2010) or the "story of decline" (Stone 1997). According to McBeth et al (2010:399), groups that construct stories in which the costs of a problem are diffuse and spread out do so to "expand the issue." This is a strategy referred to by constructionist scholars as "domain expansion" (Loseke 2003). Domain expansion links policy problems together. For Dr. Evans, the oil spill is not just a problem for the environment, fish and wildlife, but also for lost jobs the national economy.

Villains: Exxon Corporation, Federal Government, Captain Hazelwood

In the main, government agents hold the Exxon Corporation, the Federal Government and Captain Hazelwood as villains in causal stories about the Exxon Valdez oil spill. For example, Secretary Skinner of the Department of Transportation testified, "I think it is fair to say that Exxon has the primary responsibility for this accident" (p. 9). He goes on to implicate the Federal Government as well. "[M]y impression is that a somewhat over-optimistic attitude crept into our readiness and ability to deal with a spill of this magnitude, or even than accident of this size would occur. The industry-government contingency planning was based on an assumed

spill level that was quickly exceeded. The industry did not have enough equipment on hand. This was compounded by the remote location of the spill" (p. 9). He later testified: "They [Exxon] had not planned for a catastrophe of this magnitude" (p. 28). The underlying assumption is that the Exxon Corporation was negligent of risks and they should have planned better and had been more prepared. This is predictable in policy stories that seek to assign fiscal responsibility. Exxon Corporation is cast as a villainous character that intended harm with its negligence or avoidable ignorance.

However, other governmental witnesses did not construct particular villains as responsible for the harm. For example, Honorable Reilly of the EPA testified about evidence from previous spills, priorities for responding to the present spill, overseeing analysis of ecological effects and impacts and the coordination of multiple Federal agencies in responding to the spill. Summarizing the interest of the EPA, Reilly testified, "We are concerned with response oversight and with some assistance on environmental impacts and shoreline protection" (p. 19). Like some environmentalist witnesses in the Santa Barbara case, he uses the rhetorical device of synecdoche to construct the oil spill problem as a more general problem of environmental neglect. "It strikes me that, from an environmental point of view, over the last several years we have become very absorbed, very focused on toxic spills, hazardous waste, some of the more exotic problems of medical waste on beaches...all very serious, difficult problems urgently in need of attention. But at the same time, we have perhaps become less attentive to the need for maintaining our readiness to address the more conventional and more familiar problems..." (p. 19).

Similarly, Dr. Evans of the National Oceanic and Atmospheric Administration (NOAA),

Department of Commerce avoided the construction of villains and mainly testified about impacts

and consequences of the spill, thereby expanding the category of victims ("recreationists," fishing and hunting, lost jobs and income) as a justification for the "damage assessment work" that was being undertaken by the NOAA. "As the nation's principal marine pollution research and monitoring agency, NOAA examines the long-term ecological consequences" (p. 83). And later, he constructed his interest in economic remediation. "Once we have made the assessment for all practical purposes what we will do is we will present a bill to Exxon for what the costs of the damages are" (p. 85). Finally, Mr. Robinson of the Fish and Wildlife Service, Department of the Interior, testified about the impact that the spill had on wildlife resources. Avoiding the construction of villains as "intending to harm" is not surprising given theoretical notions that such constructions are wrought with difficulty. "Perhaps because as practical actors we know that causes of social problem conditions are complex, audience members in the United States tend to be drawn far more to claims about victims than we are to claims about villains" (Loseke 2003:85).

Along these lines regarding complexities surrounding the construction of blame and responsibility, are counter narratives by those who others hold accountable for the spill. In response to testimony that charged the U.S. Coast Guard with responsibility for allowing an impaired captain to pilot a tanker through the Sound, Captain Larabee of the Coast Guard deflected blame and responsibility for inadequate background check procedures when he testified: "The current procedure is to do a criminal background check" but that "In this particular case, I do not think that the problem was picked up…" (p. 38-9).

Furthermore, it is not surprising that those accused of causing the harm, will attempt to persuade audience members that it was someone else's fault in order to protect their interests (Stone 1997). Admiral Yost also of the U.S. Coast Guard testified that the reason protocols and

procedures were not followed was because the agency is understaffed and underfunded. "[L]et me talk...in terms of the support the Coast Guard gets from Congress. We have always had trouble getting a reasonable budget within this government, and that includes the Unites States Congress...I think that every time we close a Coast Guard Station, we close a lifeboat station, we close a vessel traffic service, we, as the American people, assume more risk, for accidents in these places" (p. 77.)

The testimony points the finger at the Federal Government for not allocating enough resources to ensure the Coast Guard can function appropriately. This is not surprising given Stone's (1997:200) observation that "risk" has become a "key strategic weapon for pushing a problem out of the realm of accident into the realm of purpose." In this instance, Yost's testimony constructs a competing causal story that implicates the Federal Government for not providing an adequate budget for Coast Guard activities, simultaneously constructing the Coast Guard and American citizens as victims. The implication is that by not funding the Coast Guard, the elected officials brought the problem on themselves. As an accused party, the Coast Guard witnesses predictably construct the cause of the problem as inadvertence, deflecting charges of careless neglect.

Complexities in villain construction are further illustrated in testimonies among government agents who assign responsibility to the operator of the ship, Captain Hazelwood. Secretary Skinner of the department of transportation stated, "As you know, the master of the Exxon Valdez had a record of DWI convictions and he did not acknowledge them in seeking renewal of his license with the Coast Guard (p. 10)." In short, testimony constructs Captain Hazelwood as a liar and a drunk whose actions led to the Exxon Valdez oil spill. The captain is further implicated in testimony that constructs the innocence of the Coast Guard. For example,

When Senator Robb (D-Virginia) asked, "Does the Coast Guard...maintain positive control until the ship is completely clear of the area where any potential hazard could exist?" (p. 40). Captain Larabee (USGS) responded, "No sir. The system does not provide that. It is an advisory system, and the pilot is required to provide that." Yet, as previously argued, the construction of the captain as responsible for the spill is complicated by narratives that construct him as a victim of disease.

In short, causal stories are constructed from particular vantage points with particular purposes. Stories from government agents who are implicated in senate testimony predictably try to cast other parties as responsible. According to Stone (1997:198), parties in a political battle to construct causal stories will struggle for definition in accordance with their interests. Failing the ability to construct cause as accidental, members of the coast guard construct a causal story of willful intent on the part of the Captain. Conversely, other government agents avoid the construction of particular villains and concentrate instead on the construction of victims (coasts and rivers, fish and wildlife, etc). This is a useful strategy given the difficulties associated with villain construction (Loseke 2003).

Solutions: Improve Captain Certification Processes, Create Oil Spill Liability Protocols, Assess Environmental Consequences, Improve Contingency Planning

Consistently, solutions constructed in testimonies by government agents are linked with respective causal stories. For example, causal stories that implicate the captain of the tanker are linked with solutions to prevent people like the captain from getting certified. Causal stories that implicate the oil company are linked with solutions to regulate shipping interests. And causal stories that implicate failures in planning and preparedness are linked with suggestions to improve contingency plans and to be better prepared.

Stone (1997) argues that a popular strategy in constructing solutions to policy problems is to propose changes to rules and laws. Secretary Skinner from the Department of Transportation testified "there are several things that can be done in the area of legislation." He went on to stress that legislation should focus on preventing people from lying on applications, should provide access to registries. "This Committee originated legislation that authorized access to the National Driver Registry by the FAA for airmen and to railroads... We are considering whether it can be usefully extended to the Coast Guard certification process for licensed seamen."

Similarly, Admiral Yost of the U.S. Coast Guard suggested, "[W]e have got to tighten up the application requirements and the background checks of people coming in for licenses" (p. 78). Suggestions for changes to application requirements, and ways to prevent people from lying construct "classifications of people and situations that determine permissions and entitlements" (Stone 1997:260). The implication in Secretary Skinner's testimony is that the solution is to punish or hold accountable people like Captain Hazelwood who lied on his application which is linked to the causal story that blames the captain for the spill.

Secretary Skinner also constructs "oil spill liability" as a solution to the problem. Of concern was "foreign carriers" that lacked the financial wherewithal of Exxon. As he testified the department should "work with the House and the Senate on legislation that will protect the environment in the future if – heaven forbid – we have a spill of this magnitude anywhere close to this, and if the spiller does not have the wherewithal of Exxon, so that the environment and the victims of this type of catastrophe are protected" (p. 11). Predictably, Secretary Skinner of the Department of Transportation is concerned with shipping interests and jurisdictions. In his testimony, it is clear that foreign carriers are not only outside U.S. jurisdiction in terms of compliance and protocols, they are also outside of laws and liabilities. Predictably, he argued,

"[I]t is a significant issue, it is a preemption issue – and I do not mean to minimize it, but the foreign protocols are something we have to look at" (p. 34). And he later emphasized that "an internationally enforceable piece of legislation...to deal with the problem if it were ever to occur in international waters and the ship was an international ship" (p. 45). Linking the oil spill to fears related to foreign carriers can be understood as constructing popular worry (Loseke 2003) or the broader policy narrative of decline (Stone 1997). Not acting to prevent foreign carriers is constructed as a potential problem for national security. The implication is that if Congress does not act to prevent foreign carriers from transporting oil in U.S. waters, then it will no doubt lead to greater more expensive problems.

Determining financial responsibility depends in part on coming up with economic estimates for damages caused by the spill. Dr. Ehler (Director of the Office of Oceanography and Marine Assessment) testified about the need to measure the extent of losses due to the spill in order to get reimbursed by Exxon for damages, "[T]he immediate purpose of doing the measurements of environmental effects is to be used in the damage assessment which means putting economic values on those effects so that we can, in fact, file claims to recover some of those damages" (p. 85). Emphasizing fines and liability are what Stone (1997:263) refers to as "inducements." "The idea behind inducements is that knowledge of a threatened penalty or a promised reward motivates people to act differently than they might otherwise choose." Assigning fiscal responsibility to Exxon may serve as a 'stick' to prevent future oil spills, but is also used as a justification for internationally enforceable legislation that implies that penalties should extend to foreign carriers as well.

Other prescriptions are linked to complex causal stories that blame poor contingency planning and the lack of preparedness demonstrated by the Exxon Corporation in causing the

Exxon Valdez oil spill. Honorable Reilly of the Environmental Protection Agency argued, "I think that we have to acknowledge that the adequacy of contingency planning for this and other spills deserves review and attention" (p. 19-20). He further argued that we should also consider the technological capabilities for dealing with oil spill problems. "There are, no doubt, a great many lessons to be learned here, and there is no shortage of groups that are now investigating...the adequacy of the response, the civil and criminal liabilities, and the changes that may need to be made in contingency planning" (p. 25). All in all, government agents construct solutions that are oriented to preventing and/or mitigating oil spills in the future with an emphasis that the polluter must pay and the polluter must have the financial wherewithal to pay. In short, they construct the story of control that frames the oil spill as something that can be dealt with and managed with laws and fines (Stone 1997).

Exxon Oil Representative: Accident (Alcoholic Captain) and Unavoidable Ignorance, Inadvertent Cause (Reckless Captain) and Complex Systems

While most senators and governmental representatives construct diverse inadvertent causal narratives of avoidable ignorance, reckless operator/industry, and complacent Federal Government, the CEO of Exxon Corporation constructs a counter narrative of accident due to unavoidable ignorance and complex systems. Stone (1997) writes that accidental causal stories include those that construct problems as unintended consequences of unguided actions. In Mr. Rawl's testimony, the oil spill is constructed as a disaster that was caused by the actions of an impaired captain and exacerbated by the particular location in which it occurred. Mr. Rawl of Exxon Oil summarized his prepared statement. "I am here to provide a frank response to questions regarding the Exxon Valdez oil spill and to describe our continuing efforts to deal with its consequences" (p. 47). He then expressed condolences and regrets and said "As has been said

many times this morning and by us earlier we take full responsibility." But then, he deflects blame in testimony that suggested that part of the problem is the environment in which the spill occurred. "It has already been mentioned by Secretary Skinner that the environment in this area, its remoteness, the high tides and the associated physical problems make it a particularly difficult problem" (p. 47).

Mr. Rawl continued his statement by testifying about the "factual information" that they had at the time that constructs the spill as contained and response underway: In short, Mr Rawl testified (p. 47-8) that the captain left his post, the oil spill contingency plan was activated, several organizations were helping to respond to the spill ("We have a large number of experts, academics and so forth under contract,") the claims office was well staffed and prepared to provide "immediate advance payment," the oil that could be removed was removed and the ship was "successfully refloated." He also testified that it was "too early to assess the long-term environmental damage," and that there were "many unanswered questions" with regard to the actions of the captain and crew on board. Constructing uncertainty with regard to the actions of the captain and crew is consistent with Mr. Rawl's interest to protect the company's potential liability. In summary, Mr. Rawl's testimony constructs the definition of the oil spill, victims, villains and solutions in predictable ways consistent with his and his company's interests to minimize charges of liability. Deflecting the responsibility for the spill to the setting and the workers constructs alternative explanations that complicate the assignment of willful intent to Exxon Corporation.

Problem Definition: Disaster/Accident

Mr. Rawl constructs the definition of the problem in testimony about the "facts." "A few comments about the spill, just to put it into perspective. As mentioned before the spill is

estimated at 240,000 barrels which occurred early on March 24. We have other factual information. The weather was clear. The ship had no known mechanical difficulties. A course change was requested and authorized because of ice in the outgoing channel. The captain subsequently left the bridge and tests made some time after the grounding showed the captain's alcohol level was above the limits established by the Coast Guard."

Unlike previous testimony that estimated the oil spill in terms of gallons, Mr. Rawl uses barrels as the metric for size. This is not surprising as comparatively, 11 million gallons appears much larger than 240,000 barrels. Best (1994) argues that large numbers convey large problems, whereas smaller numbers convey small problems and often statistical claims are not critically questioned. Mr. Rawl constructs the size in terms of barrels rather than gallons conveying a comparatively smaller problem. Again, numbers have normative meaning for constructing problems in need of redress, and arguably, constructing the problem using barrels rather than gallons serves the interest of Exxon Corporation to minimize the extent and hence costs related to the disaster.

The Chairman and CEO of Exxon Corporation referred to the event as both disaster and accident, "I really cannot tell you how sorry we are this disaster occurred" (p. 47). Later, he referred to the event as an accident "[T]he accident has been receiving our full attention and will continue to until the job is done." Here, Mr. Rawl constructs the event as a disaster/accident, offers a "mea culpa" and some clues as to the cause – impaired captain. Naming a problem as a particular type (disaster or accident) is symbolic in policymaking, as Stone 1997 notes.

Arguably, constructing the spill as an accident rather than a disaster has normative implications. "[B]y conveying images of good and bad, right and wrong...these [symbolic] devices are instruments in the struggle..."(Stone 1997:156). Mr. Rawl constructs the spill as bad "disaster,"

and causal actions as unintended "accident" pushing the causal narrative out of the realm of intent and into the realm of bad luck and misfortune.

Victims: Alaskans, Exxon Corporation

Mr. Rawl primarily constructs victims of the spill as those *people* most proximate. "[W]e are particularly sympathetic to the impacts on the residents of Alaska and particularly those in the Prince William Sound area. That is where the spill is creating a great deal of problems." He later stated that his company is prepared to respond to claims by injured parties. "The claims office is staffed by 30 people...Our intention is provide fair, reasonable and prompt settlements" (p. 48). Constructing victims as those proximate to the spill limits potential liabilities. Using the container metaphor (Stone 1997, Lakoff and Johnson 1980), Mr. Rawl constructs victims as residing in a particular place that are consistent with his interests to minimize potential costs related to compensating victims. Testimony effectively constructs a controllable, containable upper limit on potential claims for victim compensation.

Indeed, in an exchange with Senator Gorton (R-Washington), Mr. Rawl constructs limits to liabilities. Senator Gorton asked, "Was your response to him [Senator Stevens] another attempt to limit your liability only to people who are voting residents of Alaska, or does it extend to everyone whose livelihood is impacted by this spill?" To which Mr. Rawl responded "If, in fact, there is a fisherman in your home State who has been going up to Alaska during the summer and fishing and has records to show that, presumably he would be damaged...[But] I cannot accept...liability ad infinitum, and wherever it goes in the world. You know the rules of proof and so forth..." (p. 56). Here, the implication is that victims will be expected to "prove" victimization and in testimony that contains the pool of potential litigants to Alaskans can be read as protecting the interests of Exxon Corporation.

Further minimizing the extent of the spill and containing potential victims, Mr. Rawl testified that at least no one died as a result of the spill and response. "But, one of the only good things I can say about this thing is that so far no one was killed in this operation" (p. 55). Other testimony by Mr. Rawl is interpreted for how it downplays the construction of victims. For example, Mr. Rawl does not testify about environmental damages. Instead, Mr. Rawl testified "For now, it is too early to assess the long-term environmental damage. Natural resource damage assessment studies are underway...We also are having a number done ourselves" (p. 48). In short, using the container metaphor, Mr. Rawl limits construction of victims to Alaskan residents and others who can prove their negative impact by *containing* them to communities proximate to Prince William Sound (Stone 1997).

Like other witnesses who were charged with responsibility, Mr. Rawl constructs the Exxon Corporation as a victim of the impaired captain. Again, Stone (1997) notes that it is predictable that those who are blamed for the problem will attempt to hold others accountable. In Mr. Rawl's story, it was the captain's fault. Specifically, Mr. Rawl, Chairman and CEO of Exxon Corporation testified, "Obviously, we had no knowledge that he was impaired" (p. 49). His testimony suggests that ignorance of the Captain's impairment was unavoidable. Later he stated "We did not know about the DWI's and, of course, I had never heard of this man until two weeks ago. So, obviously, I am not looking for any sympathy, but we did not know he came in, as I understand it, and said he had an alcohol problem a number of years ago. He was rehabilitated" (p. 50).

In short, it is not surprising that Mr. Rawl constructs a causal story of accident due to the health impairment of the captain. According to Loseke (2003) one way to deflect blame attribution is to re-cast the villain as a victim of disease, in this case alcoholism. As previously

mentioned the "medicalization of deviance," is a strategy that pushes the construction of cause into the realm of accident. It is consistent with the claims making strategy to avoid the construction of villains, and rather to expand the category of victims.

Mr. Rawl further constructs a narrative of unavoidable ignorance due to the complexities of within the organization. Protecting his own interests as the CEO of Exxon Corporation, Mr. Rawl testified that he was ignorant of operational judgments at the "lower levels." Specifically, Mr. Rawl testified "Well, when it gets to the lower levels, I lose the track...There are...other people who tell this captain what to do in terms of scheduling" (p. 57). In other words, it was not Mr. Rawl's fault. His testimony constructs the company and himself personally as victims of unavoidable ignorance.

Villains: Reckless Captain, Alyeska Oil Spill Contingency Plan/Federal Government

In much of the testimony by senators and government bureaucrats, the villain in causal stories is the Exxon Corporation for reckless decision-making regarding the Valdez tanker that ran aground. However, stories that attempt to blame individuals for the Exxon Valdez oil spill are challenged by stories that deflect blame and responsibility. For example, stories that construct the Exxon executives as traitors who acted recklessly for their own gain are countered in Mr. Rawl's testimony with a story that suggests that Exxon executives were ignorant of the captain's qualifications and hence victims themselves.

Predictably, Mr. Rawl blames the captain of the ship for poor decision making which led to the oil spill and deflects responsibility for putting only one captain in charge of a supertanker filled with oil. In short, the captain could have prevented the situation. "[T]he same impairment...that created the spill to begin with, created a situation where the master could have brought another officer to the bridge...If the captain had sent for another mate before he went

below...I would expect it would have had a much better chance of getting through there" (p. 49). Later he testified "When we found out, however, there was alcohol involved and the other circumstances – we found out he violated a number of company policies – he was terminated" (p. 50). By assigning blame and responsibility to the impaired captain, Mr. Rawl protects the interests of Exxon Corporation. Here, Mr. Rawl constructs what Stone calls an inadvertent causal narrative of recklessness on the part of the captain. Stone (1997) notes that this is a typical strategy for problems in occupational safety and health. Managers of companies blame the workers. The inadvertent carelessness is understood to be the risks that the captain took in piloting a ship while impaired by alcohol, deflecting blame from the company as a whole. The oil spill was the unintended consequence of willed human action (alcohol consumption).

In addition to constructing the captain as responsible for the spill, Mr. Rawl constructs the government backed Alyeska oil spill contingency plan for failing to better prepare Exxon Corporation for the ability to respond to an oil spill. "It has always been recognized that a large tanker spill was possible in Prince William Sound, however nobody ever thought it was probable that a spill would be this large. There has been a rather modest write-up in the contingency plan for that, which recognized the possibility of a 200,000 barrel spill" (p. 51). Blaming the Alyeska plan is a strategy to push the cause of the spill to the realm of complex systems, which is akin to saying that the cause was accidental (Stone 1997).

The complexity of contracting to transport oil requires interactions between the government and the industry contractor. Implied with the invocation of the Alyeska plan is that the industry contractor acted in accordance with the criteria established by the Federal Government and was hence, just following rules. That is, Exxon Corporation acted in accordance with contingency protocols as stipulated in the government backed Alyeska plan.

However, the contingency plan is implicated in Mr. Rawl's testimony that charged the faulty plan for under-estimating the potential for a worst case scenario. This narrative strategy constructs the government as partly responsible for the conditions that led to problems with responding to the oil spill.

In summary, Mr. Rawl constructs a causal story of accident and inadvertence and deflects blame and responsibility for the oil spill by assigning responsibility to the reckless captain and the Federal Government. As Stone (1997) points out, it is somewhat predictable that parties charged with responsibility for an event like the Exxon Valdez oil spill to push the causal explanation into the realm of accident or to blame others for their carelessness and avoidable ignorance in order to avoid responsibility and/or punishment.

Solutions: Learn from Event, Improve Company Policies, Continue Domestic Exploration of Oil

Causal narratives that deflect blame from Exxon Corporation, (implicating the captain, unavoidable ignorance, and the Federal Government instead) are linked with proposed solutions. "The first thing we have to find out is what is the size of this environmental disaster" (p. 59). Quantifying the extent of the disaster in terms of size and scope is inevitably related to potential liabilities. Predictably, it is in Mr. Rawl's interest to mitigate liabilities and claims. Furthermore, as Stone (1997) points out, defining a problem in terms of numeric estimates creates moral boundaries around what is and is not the problem. "Numbers can be ambiguous, and so leave room for political struggles to control their interpretation" (Stone 1997:176). In Mr. Rawl's story, the size of the disaster is not known. And in exchanges with senators who queried whether Exxon will compensate all potential victims, Mr. Rawl testified that he would not take "liability ad infinitum." Indeed, Stone (1997:176) theorizes, "Measuring any phenomenon

implicitly creates norms about how much is too little, too much, or just right." The point is it counting implies control.

Another solution proposed by Mr. Rawl regards company policies for drug and alcohol testing. Consistent with the causal story that an alcoholic captain piloted the barge into Bligh Reef, is the solution to require drug and alcohol testing of employees. While Exxon Corporation did not test the captain in this event, changes can be made for the future. "We can impose testing in certain instances, and we have imposed it. Not before the spill, but we have got it in the revised policy, and we are going to do it. If we get lawsuits on it, we are going to take lawsuits" (p. 50). This is another illustration of a policy instrument referred to as "constitutional engineering" (Stone 1997) and is future oriented. Constructing change in practices, and decision making protocols to prevent future tanker crashes is predicated on metaphors of mechanisms and machines. Again, the implication is that oil spills can be prevented and controlled if the broken bureaucratic structures (like drug and alcohol testing) are fixed.

Mr. Rawl also testified about what he is *not willing to do* in light of the oil spill.

Consistent with causal stories that portray the CEO as a victim of unavoidable ignorance, Mr. Rawl testified that was not willing to take the fall personally. In an exchange with Senator Gorton (R-Washington), the Senator wanted Mr. Rawl to comment on what his company was willing to do in response to the disaster, the implication being that Mr. Rawl should agree to resign. "As I understand their [Japanese] corporate structure, you now, when something like this happens, everyone takes responsibility, from the individual...up to the CEO. And everyone offers his resignation..." To which Mr. Rawl responded "I appreciate that expresses your opinion. I doubt if I have to comment on it except that a lot of the Japanese kill themselves also, and I refuse to do that" (p. 58). Here, Mr. Rawl constructs boundaries around what he is willing

to do consistent with his individual interest to remain employed as CEO. Constructing expectations for his resignation as tantamount to suicide is a symbolic device that is wrought with normative meaning. In short, his resignation is constructed as an immoral act.

Finally, Mr. Rawl proposes that in light of the oil spill, one of the main "lessons learned" is that the country should maintain domestic exploration of oil. "In terms of oil exploration, I think we need to continue to do it in this country. I think it is very vital. As you know...we are importing 40-plus percent of the oil we consume and we have a balance of payment problems. If we do not explore for domestic oil we will have tankers coming to U.S. coasts with foreign rather than Alaskan oil" (p. 62). Consistent with other stories that construct the United States as exceptional and more virtuous than foreign countries, constructing the expansion of U.S. domestic oil exploration as a solution is consistent with the interests of the U.S. based Exxon Corporation which stands to gain from such expansion. Furthermore, it works symbolically to normalize domestic oil production as a "good thing."

In summary, like causal stories in the Santa Barbara case, stories constructed to explain the Exxon Valdez oil spill are diverse and contested. This is predictable according to Stone's (1997) framework that organizes policy stories according to actions and consequences. Causal stories represent struggles to bring the oil spill under human control, to assign fiscal responsibilities and legislative reform and to avoid punitive costs of doing business. In short, stories work to advance and/or protect the interests of the storyteller. Testimony from Mr. Rawl of Exxon Corporation constructs the oil spill as caused by willed human action that resulted in unintended consequences. In other words, it was an accident. The causal stories offered by senators cast the captain, the company and the Federal government as accountable for miscalculation, poor judgment, lies, dereliction and complacency that created underlying causes

of the spill. However, causal explanations that attempt to levy individual blame are undermined by alternative explanations that deflect blame and exonerate people or construct the problem as everybody's fault. Not surprisingly, other testimony levies blame and responsibility on the complex systems in which individuals are embedded. (See Table 7).

Table 7: Summary of Causal Stories by Diverse Storytellers in Exxon Valdez Oil Spill

	Senators	Government Agents	Oil Industry	
Causal	Avoidable Ignorance,	Avoidable Ignorance, Reckless	Accident (Alcoholic Captain),	
Story(ies)	Reckless Operator,	Operators, Complex Systems	Unavoidable Ignorance,	
	Complacent		Inadvertent (Reckless Captain)	
	Industry/Government		and Complex Systems	
Problem	Disaster, Tragedy	Catastrophe, Tragedy, Disaster	Disaster, Accident	
Definition				
Victims	Prince William Sound,	Fish and Wildlife, Coasts and	Alaskans, Exxon Corporation	
	Marine Life, Tourists,	Rivers, U.S. Coast Guard, U.S.	_	
	Residents	Citizens		
Villains	Exxon Oil Corp., U.S.	Exxon Corporation, Federal	Reckless Captain, Alyeska Oil	
	Coast Guard, Captain	Government, Captain	Spill Contingency	
	Hazelwood,	Hazelwood	Plan/Federal Government	
	Government, Industry			
Solutions	Protect Coastal	Improve Captain Certification	Learn from Event, Improve	
	Environment, Fine	Processes, Create Oil Spill	Company (alcohol and drug	
	Exxon Corporation,	Liability, Assess Environmental	testing) Policies, Continue	
	Federalize Response,	Consequences, Improve	Domestic Exploration of Oil	
	Ban Supertankers	Contingency Planning.	_	

Like in the Santa Barbara case, storytellers use rhetorical devices to accomplish diverse goals (assign responsibility, deflect responsibility). Despite the complexity and diversity of stories told, there are underlying assumptions that provide for their overall coherence. Taken together, I consider the ways witnesses at the initial senate hearing pertaining to the Exxon Valdez oil spill represent the problem, cause and resolutions for how they make sense of the oil spill event. All in all, the spill was represented as an economic and ecological disaster that was caused by individual dereliction as well as organizational complexity and that it could have and should have been prevented. Prescriptions focused on assessing the overall economic impact to natural and biological resources as well as to industrial, recreation and tourism economies in

order to determine the aggregate financial toll caused by the spill. Other solutions emphasized the need for better planning and preparedness as well as more monitoring and oversight of individual contributors. Like the previous chapter, I argue with Stone's (1997) assertion that notwithstanding the contesting stories and details, causal stories reflect two broad storylines: stories of decline and stories of control that are held together by taken-for-granted assumptions. In the final section, I consider the ways diverse stories are held together by similar taken-for-granted assumptions or underlying morals about how the world should work.

Discussion of Findings

So Far, I have examined testimony about the Exxon Valdez oil spill. Like the previous chapter that explored testimonies about the Santa Barbara oil spill, multiple stories construct the problem, causes and prescribed solutions that are linked with the interests of storytellers. In this section, I consider stories together for how they reveal underlying morals. Within diverse and contesting narratives I interpret underlying moral assumptions about what is valued and what is devalued. The context of the Exxon Valdez oil spill was different from the Santa Barbara oil spill in that it had precedents. That is, it is not the first oil spill to have occurred in the United States. The main plot of the story is that a tanker carrying millions of gallons of crude oil ran into Bligh Reef spilling nearly 11 million gallons of oil into "pristine" waters of Prince William Sound. At the first Senate hearing that addressed the spill witnesses decried the event as one of the worst environmental catastrophes ever to occur in America. In oral testimony, Alaska was extolled for its unique ecology that not only provided for recreation and tourism, but also for the nation's economic well being. Several witnesses describe and define the Exxon Valdez spill using comparison to other previous spills that were either more or less severe. Most witnesses

agreed that the event was a disaster. Some used disastrous metaphors suggesting that the spill was akin to an atomic bomb or a devastating earthquake.

Victims of the spill were constructed as the natural environment, birds, marine life and especially the valuable fisheries. Others mentioned coasts and rivers, as well as residents and tourists whose livelihoods were altered by the spill. From some vantage points, villains were constructed as the "convicted drunk" as well as the traitorous oil industry that acted recklessly and irresponsibly leading to what was considered then the largest oil spill on record to have occurred in U.S. waters. Members of the U.S. Coast Guard were also impugned for not conducting proper background checks, and/or for allowing an impaired captain to steer a large barge full of oil through the ecologically vulnerable and narrow Sound.

But, other stories deflected blame and responsibility for the oil spill. That is, testimony from the Mr. Rawl of Exxon Corporation and members of the U.S. Coast Guard blamed complex systems and Congress for not funding the Coast Guard well enough to provide for the checks and balances. Government officials and industry operators are blamed for complacency and misplaced trust in processes and procedures. Mr. Rawl pointed fingers at the contingency plans (Alyeska protocol, for example) that were used to establish clean up and response protocols, suggesting that oil spill scenarios defined in contingency plans were grossly underestimated. In the main, blame was placed on complex causes and institutional processes that created the conditions for the accident to happen.

In the end, solutions to the problem were consistent with description of the problem. Principally, the focus was on establishing clear liability which was difficult given the multiple stories constructing inadvertent causes (ignorance, lack of staff and funds, lack of foresight, addiction, and poor judgment) and complex institutional causes (lack of monitoring/oversight,

failed protocols and inadequate contingency plans). Despite the lack of a clear villain, the Exxon Corporation was named as principally liable to compensate victims and to assume responsibility for clean up. Further, prescriptions pointed to fixing contingency plans and protocols, providing more budget allocations to the U.S. Coast Guard to enable the agency to do its job correctly. And finally, witnesses argued for a need to legislate stringent practices to protect against "fly by night" foreign carriers who do not have the deep pockets that Exxon Corporation does. The implied emphasis in this prescription is that oil companies should be able to pay for any and all damages that result from oil extraction and development practices – and foreign carriers are not as good as U.S. carriers.

Underlying Morals

The underlying morals in Exxon Valdez stories are not unlike the Santa Barbara event. Unique natural landscapes should be protected such as the Prince William Sound or the Alaskan Wilderness in general. Furthermore, areas constructed as important for the national economy should also be protected. Constructed as "the most fertile, most productive and uniquely vulnerable," senators advocated environmental stewardship. The underlying assumption is supported by ontological metaphors that create boundaries around land areas and events. As Lakoff and Johnson (1980:29) argue "[W]e experience the rest of the world as outside us. Each of us is a container, with a bounding surface and an in-out orientation. We project our own inout orientation onto other physical objects that are bounded by surfaces."

Individuals and organizations should "do the right thing" and uphold moral responsibility. As has been demonstrated, the struggle in diverse causal stories about the oil spill is focused on assigning moral responsibility and "real economic costs" (Stone 1997:206). That is, industry operators and government agencies such as the U.S. Coast Guard should know better

than to employ a person with an alcohol addiction. They should be more responsible in their vetting processes to ensure the person at the helm of a large tanker carrying millions of gallons of oil is up for the task. Government and industry should plan better and be more prepared. Specifically, in contingency planning (as stipulated in Alyeska oil spill contingency plan) they should redefine what constitutes a "worst case scenario."

Finally, testimony emphasizes a need for a comprehensive accounting of environmental loss in economic terms to enable the Federal Government to provide an accurate bill to the Exxon Corporation for damages and losses to the natural environment as well as local, regional and national economies. The underlying assumption is predicated on constructing aggregate costs to Prince William Sound and other victims that can be remunerated and remediated with cash.

Some Places are More Valuable than Others

While representations of the Santa Barbara oil spill were contested by stortellers, participants in the Exxon Valdez oil spill hearing nearly unanimously refer to the event as a catastrophic event. The "good reasons" (Fisher 1985) provided to support the representation of the spill as a catastrophe are illustrated in testimony that highlights the economic costs to "pristine waters" of the Prince William Sound. This place is described as uniquely valuable due to the fact that it is considered among the "most productive" and one of the "most fertile fishing grounds of any in the world." But it is also described as uniquely vulnerable because of its "gravel beaches, limited wave action and sub-arctic temperatures," and because it is "one of the richest concentrations of wildlife in North America."

Following the storyline of helplessness and control (Stone 1997), the oil spill is constructed as a situation that was out of control, but can be managed if we [insert policy

proposal]. The underlying assumptions illuminated in representations of the oil spill as a controllable problem are that the Prince William Sound is uniquely wild, vulnerable, and valuable and should be protected. The story suggests that we should be more cautious with regard to places that we select to exploit for oil extraction, production, and distribution. The implication is that a Wildlife Refuge should not be explored for oil supplies because of both its ecological and economic importance for the nation's food supply (of salmon, herring, etc.). In other words, we should not drill where we eat.

Indeed, Fourcade (2011) recently argued that the moral importance of place in American culture lies between "wilderness" and "commodity." Fourcade's work points to underlying beliefs about the importance of untamed, untouched and wild landscapes of Alaskan wilderness that are juxtaposed with beliefs about structured, tamed landscapes of the urban environment. The representation of place as wild and characterized by natural beauty arguably leads to practices to protect or pay up. Fourcade (2011) argues that representing the moral value of nature in economic terms is embedded in complex histories and political arrangements. As she writes, "[Economic valuation] incorporates in its very making evaluative frames and judgments that can all be traced back to specific politico-institutional configurations and conflicts" (Fourcade 2011:1769).

In short, stories that construct the uniqueness of the Alaskan wilderness are similar to the stories that construct the uniqueness of the Santa Barbara coast. Both are supported by ontological metaphors that contain land spaces as entities (Lakoff and Johnson 1980) that are morally valued as naturally beautiful, precious areas that should be protected. In contrast, places not represented as unique, wild, undeveloped, beautiful, and vulnerable are not accorded as much value. The places we regard with high moral evaluation, we regard with high economic

valuation. Arguably the reverse also applies: the places we regard with high economic valuation we regard with high moral evaluation. As Lakoff and Johnson (1980:22) argue, "The most fundamental values in a culture will be coherent with the metaphorical structure of the most fundamental concepts in the culture." And as testimonies in the Exxon hearing suggest, beauty is among the most fundamental values in our culture.

Nobody's Perfect and Accidents Happen

Exxon Valdez oil spill stories also reveal moral assumptions about people and knowledge. Specifically, testimony highlights the necessity of learning from mistakes. There is much moral condemnation of the acts of individuals deemed responsible for the spill. Following the conspiracy storyline which Stone (1997:143) regards as a "twist on the control story," some causal stories constructs victims and harms as "deliberately caused or knowingly tolerated, and so evoke horror and moral condemnation." The captain of the tanker is regarded as a "convicted drunk," who "lied on his license renewal application" and whose actions led to the "defiling" the wildlife and fisheries of the Prince William Sound. Senator Hollings's (D-South Carolina) comments further condemns the guilty, "Why should the citizens of this country continue to be subject to the tyranny of small minds who abuse alcohol and drugs" (p. 3)?

Similarly, the Exxon Corporation is referred to as the "double cross boys" whose carelessness led to catastrophe. Representations of those who were held responsible for the oil spill as criminally negligent traitors suggest that the oil company intentionally defiled Alaska's beautiful wilderness for economic gain. Furthermore, consistent with conspiracy plotlines, witness representations imply that the U.S. Coast Guard and Exxon Corporation were in cahoots. Indeed members of the Coast Guard are labeled derelicts for not having more stringent protocols for the transport of oil through the Prince William Sound.

But, predictably representations of villains in nefarious terms are juxtaposed with alternative explanations that deflect blame and responsibility away from particular individuals. Loseke (2003) notes the difficulties and complexities regarding the construction of villains. Villains must be constructed as *intending to do harm* for no good reason (my emphasis). Further, Stone (1997:191) argues that constructing intent is the "most powerful offensive position to take, because it lays the blame directly at someone's feet." However, as has been argued, there are often counter narratives that deflect blame and responsibility away from parties charged with guilt. That is to say underlying representations that vilify the captain, the corporation and the coast guard are widely held beliefs that nobody is perfect and accidents are bound to happen.

Yet, broadly, diverse constructions again imply a story of control (Stone 1997).

Alternative explanations are considered for the acts of those deemed responsible. The captain had an addiction problem for which he was seeking treatment. The chairman and CEO of Exxon Corporation did not know that the captain lied or was impaired which was addressed in proposals to fix broken bureaucratic structures of certification and alcohol testing. Testimony suggests that the decision to hire him was an operational one that was made without the knowledge of the chief executive. And the Coast Guard said they were understaffed and under-funded. Blame is levied at a stingy Congress. In other words there were alternative explanations for derelictions of duty that are were offered to absolve the accused of guilt, or to provide for their forgiveness.

Taken together, the underlying belief is that nobody is perfect. The cause of the Exxon Valdez oil spill was constructed as due to imperfect processes, and systemic inefficiencies.

People are victims of complex systems. Senator Packwood's comments illustrate the moral tension with holding individuals accountable for disastrous events, "God has not yet perfected

man, and I doubt if Congress is going to improve on God's efforts over the years" (p. 37). Additionally, Secretary Skinner of the DOT said, "It clearly is, from what the preliminary reports show, an act of...significant negligence. We cannot mandate acts of negligence. They are going to happen on occasion" (p. 44). And as the analysis reveals in more detail, people are further absolved of guilt if they are just following orders. It was not the fault of any one individual; it was due to faulty scenario planning. Based on previous experience and knowledge, industry actors did not, nor could not anticipate an oil spill could be so big.

Importantly, political actors use narratives of control to buttress goals for policy design. Expressly, storytellers avoid the construction of villains and concentrate on the construction of victims which works to quantify the extent of damages and liabilities as finite and countable. Additionally, testimony constructs the need for more stringent legislation and regulation to protect the environment from another oil spill. Moreover, stories construct the problem as controllable with more stringent background checks on captains of large tankers, and more clearly defined responsibilities for government agencies tasked with oil industry oversight. Finally, proposals to update contingency plans and protocols in order to be prepared for future spills that may exceed our imagination in scope and size illustrate the belief that what was construed as a disaster similar to an atomic bomb is "amenable to change through human agency" (Stone 1997:143). Underlying prescriptions to fix broken systems is the normative assumption that we can. And with systemic re-engineering, we can prevent future oil spills. *Polluters Can (and Must) Pay*

Despite the complexities in assignment of blame and responsibility, prescriptions for redress construct the "right thing to do" which is for Exxon Corporation to pay penance for spilling oil into the Prince William Sound. Stone (1997) argues that "inducements" or

punishments are predicated on the belief that sanctioning wrong doers with financial penalties will work to shape human behavior. "Our most commonsense notion of how to bring about change rests on the proverbial carrot and stick" (Stone 1997:263). Here again is the underlying narrative of control that implies the oil spill problem is definable, calculable, and fixable. All in all, the Exxon Corporation is expected to compensate human and environmental victims for the damages and losses caused by the oil spill. In addition to beliefs about the applications of punishments to control or shape behavior are underlying beliefs that suggest nature can be compensated for losses and damages caused by the oil spill. Nature is conceptualized as an entity or object that can be remunerated.

Consistent with theories regarding metaphorical coherence testimonies attempt to make sense of the oil spill using the "container" metaphor (Lakoff and Johnson 1980). Diverse stories construct the oil spill problem as an object, the setting in which it occurred as a unique natural space, and the activities surrounding the spill as "substances" that are contained which works to construct the scope of the problem and proposals for redress. Causal stories that are constructed to hold individuals and organizations accountable for the oil spill: (the captain, the U.S. Coast Guard, and the Exxon Corporation) are linked with calls to create punitive laws that assign financial responsibility for the consequences of the oil spill. Creating boundaries around events, actions and states (places) is an act of quantification, an attempt to bring the oil spill problem under human control (Stone 1997). While not writing about oil spills per se, Lakoff and Johnson (1980:34) argue: "When we are suffering substantial economic losses due to complex economic and political factors that no one really understands, the [oil company] as adversary metaphor at least gives us a coherent account of why we're suffering these losses." Underlying prescriptions that emphasize financial remuneration for the oil spill are taken-for-granted assumptions that

ecological resources can be bought and replenished with cash – that money can redress the impacts to "fish stocks, birds, marine mammals, and the extensive critical habitats that comprise Prince William Sound" (Dr. Evans of the National Oceanic and Atmospheric Administration, p. 84).

Prescriptions for fines and inducements are consistent with the polluter pays principle in environmental law (Stenis and Hogland 2003). Underlying beliefs in polluter pays prescriptions are assumptions that the ability to pay damages absolves the sin of natural defilement. For a company like Exxon Corporation that is perceived to have deep enough pockets to pay up when oil spills happen there is an underlying positive evaluation of their ability to clean up their messes. In contrast, prescriptions for financial inducements construct "fly by night foreign carriers" as potentially lacking the ability to pay as a justification for oil spill legislation to apply internationally. Constructing foreign carriers as lacking in necessary financial might and stability that is required to compensate for future oil spill disasters (simultaneously constructs the moral superiority of United States companies as exceptional in the activities of oil transport). This illustrates an underlying belief that future oil spills are controllable but only if/when led by the United States. Polluter pays principle is predicated on the assumption that a carrier must have the ability to pay for the inevitable oil spill and presumably no carriers have the resources that American carriers do. Furthermore, prescribing that polluters pay for damages assumes finite, countable damages can be redressed with money. Money is the answer.

Conclusion

In conclusion, stories about the Exxon Valdez oil spill illuminate contesting constructions of the problem, victims, villains and solutions that are patterned according to the interests of the storytellers. All in all, analyses of stories show that political actors use rhetorical devices and

narrative strategies to construct the Exxon Valdez oil spill as a problem that is amenable to human control. Moreover, when examined together, stories reveal underlying assumptions about how the world should work. We should not transport oil in ecologically valuable places, convicted drunks should not be able to captain tankers carrying oil via waterways, and related groups and agencies should be more knowledgeable; have more proactive plans and protocols. Finally, oil companies should have deep pockets to compensate for the economic losses to ecology and to economy. While the ideal is that oil spills should not happen, there is an underlying tacit agreement that they will, but metaphorical quantifications construct oil spills as controllable problems. This assumption speaks to a larger shared cultural tolerance for risk that has the potential to threaten our natural environment beyond our ability to pay (Lash 2000). Perhaps shared risk is supported by beliefs in the ability to control and contain the consequences of oil spills. Nowhere in the testimony about the Exxon Valdez oil spill is there a suggestion that we consider other means for energy production or to consider constricting energy consumption. While some propose the idea that we should go to smaller tankers or not drill in ecologically vulnerable areas no one suggests that we curtail our demand for oil. The narratives focus on being better prepared for the next "big one," which is just around the corner – in the next chapter.

CHAPTER SIX: STORIES ABOUT THE DEEPWATER HORIZON OIL SPILL

Analyses in this comparative project have, thus far, illuminated the multiple and contesting stories about significant oil spills. All in all, stories that are constructed to explain oil spill events are patterned in predictable ways. For example, senators construct stories of inadvertent causes which assign blame and responsibility to reckless oil operators and other implicated parties for actions that inadvertently led to the oil spill. Whereas the accused (industry representatives and other parties) construct counter stories of accidental cause, worker incompetence, and complex systems to deflect blame and minimize responsibility.

Taken together diverse stories reveal underlying morals or widely held beliefs that provide for their coherence. In general, I observe underlying narratives of control in diverse stories told among diverse storytellers (Stone 1997). Summarily, diverse causal narratives depict oil spills as controllable problems. Widely held beliefs revealed in the Santa Barbara case are visible in testimonies that suggest we should not drill in beautiful places like the Santa Barbara coast. Further, we should be and can be more knowledgeable about the geological conditions and technological capacities before we drill. Finally, we have or can develop the technology to avoid future oil spills. In the Exxon Valdez hearing, I find evidence of control in testimonies that suggests nature is economically valued and that some places are more valuable than others. Further, I note taken-for-granted beliefs such as people are not perfect and accidents can and will happen. Finally, I observe the belief that industrial "polluters" can and should be able to pay for defiling nature and natural resources.

The underlying assumption is that oil companies should repent and pay – they should have deep pockets and stronger contingencies in the event, "God forbid," another oil spill event occurs. The widely-held belief that nature can be recompensed for losses due to oil spill events with cash. Oil spills are quantifiable and controllable phenomena. But, despite what might be regarded as growing awareness of the consequences of oil drilling to natural and social environments, another oil spill event does happen and it is even bigger than the last one. In this chapter, I examine testimony about the Deepwater Horizon or BP oil spill – otherwise known as the largest oil spill in American history.

According to Hoffman and Jennings (2011:100):

On April 20, 2010, the mobile drilling rig Deepwater Horizon exploded about 41 miles off the coast of Louisiana when methane gas ran up the drilling column and ignited. At the time of the incident, production casing was being installed and cemented by Halliburton Energy Services. The explosion killed 11 platform workers and injured 17 others. Within 2 days, the rig sank, setting off an unrestricted flow of oil from the damaged wellhead 5,000 feet below the surface of the Gulf of Mexico. An estimated 53,000 to 62,000 barrels of oil were released per day, covering 3,850 square miles in just over a week. After 88 days of unsuccessful attempts to stem the flowing oil, the wellhead cap was finally replaced on July 15. On September 19, nearly 5 months after the initial blowout, the federal government declared the well officially "dead." At this point, the BP Oil Spill became, in terms of volume, the largest accidental spill in history.

Over the course of five months, the well spilled nearly 205 million gallons of oil into the Gulf of Mexico (Hoffman and Jennings 2011). To put this amount into perspective, the Exxon Valdez Oil Spill that occurred approximately 20 years prior was then considered the largest oil spill in United States history with an estimated volume of 11 million gallons. In addition, the Santa Barbara oil spill that occurred nearly 20 years prior to Exxon released approximately three million gallons of crude (Kurtz 2004) (See Figure 2). In what follows, I interpret oral testimony in the first Senate hearing to address the Deepwater Horizon oil spill.

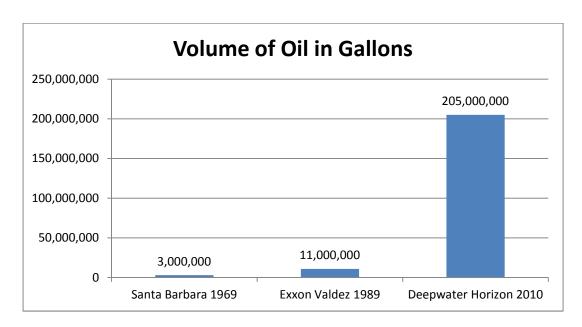


Figure 2: Oil Spills Compared by Volume of Oil

Institutional Context

On May 22, 2010, nearly three weeks after the spill, Jeff Bingaman (committee chairman and Democratic Senator from New Mexico) along with other members of the Senate Committee on Energy and Natural Resources held a hearing to "create a thorough factual record and an informed discussion of the very important questions presented by the disaster" and to "advance any necessary and appropriate legislation through the Senate" (p.3a). (See Table 8). This is the initial or first Senate hearing that takes place following the spill. As has been discussed in previous chapters, the chairman of the committee has the power to decide the structure of senate hearings. And Chairman Bingaman (D-New Mexico) divided this hearing into two "panels" of "excellent witnesses" (Bingaman p.4a).

The first panel included witnesses deemed "experts" in the oil industry and in regulation and oversight. These witnesses included Dr. F.E. Beck, an associate professor of petroleum engineering at Texas A&M University and Mr. Elmer Danenberger, retired chief of offshore regulator programs for the Minerals Management Service, Department of the Interior.

Table 8 – Alphabetical List of Senate Members of the Committee on Energy and Natural

Resources

Name	Political Party
John Barrasso	R-Wyoming
Evan Bayh	D-Indiana
Robert F. Bennett	R-Utah
Jeff Bingamen (Chairman)	D-New Mexico
Jim Bunning	R-Kentucky
Richard M. Burr	R-North Carolina
Sam Brownback	R-Kansas
Maria Cantwell	D-Washington
Bob Corker	R-Tennessee
Byron L. Dorgan	D-North Dakota
Tim Johnson	D-South Dakota
Mary Landrieu	D-Louisiana
Blanche Lincoln	D-Arkansas
John McCain	R-Arizona
Robert Menendez	D-New Jersey
Lisa Murkowski (ranking member)	F-Alaska
Jim Risch	R-Idaho
Debbie Sabenow	D-Michigan
Jeff Sessions	R-Alabama
Jeanne Shaheen	D-New Hampshire
Mark Udall	D-Colorado
Ron Wyden	D-Oregon

The second panel comprised witnesses from the three oil companies implicated in the event: Lamar McKay, President and Chairman, B.P. America, Inc.; Steven Newman, President and Chief Executive Officer, Transocean Limited; and Tim Probert, President, Global Business Lines, Chief Health, Safety and Environmental Officer, Halliburton. (See Table 9).

The structure of this hearing differs from previous hearings analyzed and as such bears mentioning. As has been previously discussed, the institutional context of the hearing influences the stories told within the hearing (McBeth et al. 2011). In panel 1, the stories focus on explaining "best practices" from the perspectives of an academic expert (Dr. F.E. Beck, Associate Professor of Texas A&M University), and a retired government official, (Elmer Danenberger, Former Chief of Offshore Regulatory Program, Minerals Management Service). In panel 2, the stories are focused on perspectives of industry leaders whose companies are implicated in the oil spill event. Unlike the previous two oil spill hearings analyzed in this comparative report, there are no conservationists or environmental activists present. Predictably, there is scant mention of environmental consequences in this hearing.

Table 9 – Chronological List of Witnesses – Deepwater Horizon

Name	Organization	Date
Dr. F.E. Beck	Associate Professor Petroleum Engineering at Texas A&M University	May 11, 2010 (Panel 1)
Mr. Elmer Danenberger	Retired Chief of Offshore Regulatory Programs for the Minerals Management Service	
Lamar McKay	President and Chairman, B.P. America, Inc.	May 11, 2010 (Panel 2)
Steven Newman	President and Chief Executive Officer, Transocean Limited	
Tim Probert,	President, Global Business Lines, Chief Health, Safety and Environmental Officer, Halliburton	

The fact that people died and/or were injured in the oil well explosion also shaped the protocols governing the way this hearing was conducted. Unlike previous cases (Santa Barbara

and Exxon Valdez), witnesses in the Deepwater Horizon hearing were required to be sworn in as directed by Chairman Bingaman (D-New Mexico), "Because of the gravity of this hearing, we have that all witnesses testify under oath..." (p.6a). The implication is that what is said in this hearing can be used as evidence in a court of law. Senator Bingaman stated, "Do you solemnly swear that the testimony you're about to give to the Senate Committee on Energy and Natural Resources shall be the truth, the whole truth, and nothing but the truth" (p. 6a)? Arguably, this rule influenced the types of stories told. Indeed, Stone (1997:203) argues, "The political success of causal theories is...constrained by two powerful social institutions for determining cause and legitimating claims about harms: law and science."

Like the two previous cases, I regard congressional testimony as narratives that construct the meaning of the oil spill. I examine stories about the Deepwater Horizon oil spill as constructed from the oral testimony of senators and invited witnesses. Witnesses' verbal statements answer questions about the context/setting of the event as well as the characters, plotlines and underlying morals. I organize stories told according to Stone's (1997) "causal stories" framework to illuminate how storytellers define the oil spill problem and its redress that illuminate links between interests and ideas.

Causal Stories

Consistent with previous case studies about oil spills, I examine transcripts from the first Senate hearing to investigate the Deepwater Horizon oil spill with an aim to document who the storytellers are as well as how they construct narratives that attempt to make sense of the oil spill. In the main, there are three different groups of storytellers in this particular hearing: senators, government "experts," and oil industry representatives. As such, I organize stories beginning with senators, then, the first panel (experts), and ending with stories told by witnesses

in the second panel, (industry representatives). Notwithstanding opening statements, senators tell stories in comments and questions posed to witnesses. Invited witnesses, on the other hand, tell stories through prepared statements and responses to questions posed by senators.

Diverse testimonies are analyzed for how they construct the oil spill event as a problem that requires intervention. For example, similar to previous cases, senators construct inadvertent causal narratives that construct the oil companies as reckless and ill-prepared villains whose actions led the oil spill. Another story is that oil companies were in cahoots with the Minerals Management Service (government agency) tasked with oversight and regulation and did not do due diligence to ensure safety protocols were followed. Consistent with what Stone (1997) refers to as "the conspiracy" story; this version constructs the problem as intentionally caused.

Experts, on the other hand constructed a complex systems, accidental narrative, along with an avoidable ignorance/worker negligence narrative to explain the event. Dr. Beck offered testimony to explain the mechanical processes involved in oil drilling and suggested that something went wrong with the highly technical processes. In other words, he constructed the event as accidental due to complexities involving multiple failings of "multiple redundancies." In contrast, Mr. Danenberger suggested the problem may have been the workers on the rig. They did not follow proper procedures. Mr. Danenberger also constructed a counter narrative to deflect blame levied at the Minerals Management Service, the government agency which he led, that was also charged with wrongdoing.

Finally, industry representatives construct stories that attempt to deflect blame and responsibility. As Stone (1997) has pointed out, usually parties who are held responsible for the problem will attempt to downplay the event, or shift responsibility and blame onto other parties. All in all, hearing participants construct stories consistent with their particular interests.

Senators: Reckless Industry/Federal Government, Complex Systems

Two senators offered opening statements: Senator Bingaman (D-New Mexico) and Senator Murkowski (R-Alaska). Like previous cases, the first to speak was the chairman of the committee, Senator Bingaman (D-New Mexico). Predictably, senators construct causal stories that are consistent with interests in legislation and other policy agendas (such as oil development). "Our goal in this hearing is to create a thorough factual record and an informed discussion of the very important questions presented by the disaster...I intend to work with Senator Murkowski, the ranking member, and any other members of the committee, to develop and introduce and advance any necessary and appropriate legislation through the Senate" (p. 3a). Senator Murkowski emphasized that "industry must never grow complacent and always strive to minimize those risks." She constructed her interest in maintaining attention to oil development when she testified, "...[U]nder anyone's most optimistic scenario, our nation will need a lot of oil for a long time to come" (p. 4a). Taken together, senators construct causal stories that blame the oil industry, the Minerals Management Service as well as complex systems or as Senator Bingaman testified the oil spill was caused by "a cascade of failures and technical and human and regulatory errors" (p. 3a). Like previous cases, senators construct causal stories that make visible the rhetorical or "ideational" strategies used to advance and/or protect the interests of storytellers (Padamsee 2009). In opening statements, senators' testimony forms their interests in designing legislation, and maintaining domestic oil production.

Problem Definition: Horrible Disaster, Catastrophe, Tragedy

Senators construct the event as a disaster, catastrophe or tragedy. Senator Stabenow (D-Michigan), for example, called the event a "horrible disaster" for the loss of human life and also because it was a "catastrophe economically and environmentally" (p. 27a). And Senator

Barrasso (R-Wyoming) described it as a "tragedy unfolding in the Gulf of Mexico" that is "heart-wrenching" (p. 14a). According to these constructions, the oil spill is a disaster because people died and also because of serious threats to our economy and environment. Testimonies encourage audience members to feel sympathy for the losses that are "heart wrenching." Like previous cases, senator's problem constructions are consistent with what Stone (1997) refers to as "horror stories." According to Stone (1997) suggesting that the spill is a catastrophe for the economy and environment is a form of synecdoche that is links the spill with other issues in dramatic and poetic terms. It is a political strategy to draw attention to other policy issues of importance to storytellers.

Some senate testimony constructs the oil spill as an event that is becoming more common. Referred to as "the story of helplessness and control" (Stone 1997), Senator Menedez (D-New Jersey) argued, "I think it doesn't take a rocket scientist to figure out that there is no such thing as too safe to spill" (p. 20a). And Senator Murkowski (R-Alaska) stated, "This accident has reminded us of a cold reality that the production of energy will never be without risk or environmental consequence" (p. 4a). Here, the implication is that no matter what is done, there will be oil spills; we are helpless to prevent future spills, but we can endeavor to make changes to minimize, reduce and control future occurrences. Underlying these implications is what Stone (1997) regards as the story of helplessness and control. While we are helpless victims of fate, with human agency we can control and fix oil spills.

In contrast, Senator Landrieu (D-Louisiana) constructs the oil spill as a rare occurrence, "The record will show, from 1947 to 2009, 175,813 barrels have been spilled out of 16 billion produced. That is 0.001 percent of the total production...I think it's important to keep that in perspective" (p. 16a). This is not surprising as Senator Landrieu later testified about the

In this testimony constructs the Deepwater Horizon oil spill as a rare event which works to downplay the event. While oil spills may be catastrophic, they are rare. According to Del Rosso (2011) constructing an event as rare or "isolated" works to "downplay and rationalize" the event in accordance with the storyteller's interest. In this instance, Senator Landrieu forms her interest to protect the oil and gas industry in her state with the use of numeric estimates that work as a device to suggest there have been a lot more successes than failures in offshore drilling.

Indeed several senators use the oil spill as a justification for continued domestic oil production as the comments of Senator Barrasso (R-Wyoming) illustrate, "It's important to remember that this tragedy does not change America's energy needs and our continued dependence on foreign oil" (p. 15a). The necessity for domestic oil production is further highlighted in testimony that constructs dependence on foreign oil as "perilous" for both national energy needs and environmental safety. For example, testimony suggests the United States can extract and develop oil resources more safely than any other nation as Senator Murkowski (R-Alaska) claims, "[F]or the sake of our nation's economy, for the sake of our national security...for the sake of the world's environment, we need to safely produce the maximum amount of that energy here at home" (p. 4-5a).

Additionally, offering a variant of the decline narrative (Stone 1997), Senator Landrieu (D-Louisiana) cautions against reductions in domestic production of oil for energy. "Any constriction of domestic oil and gas production either onshore or offshore will only further put us in a perilous situation and an over-reliance of foreign oil. And...we'll export some of these problems to countries less equipped and less inclined to prevent this kind of catastrophic disaster" (p. 17a). These testimonies rely on the rhetorical device of synecdoche to symbolically

represent the oil spill as a part of a larger problem of oil dependence on foreign producers. The moral implication is that the United States extracts and produces oil more safely and efficiently than any other place on Earth.

These stories are similar to stories documented in the Exxon Valdez oil spill chapter in which some witnesses constructed foreign carriers as derelict, "fly by night." Indeed, representations such as "less equipped and less inclined" construct foreign nations as careless and amoral in their oil extraction, production and distribution processes. Simultaneously, the United States is elevated in storytellers' moral hierarchy. The U.S. is more equipped and more inclined to control oil spill problems. Predictably, senators story the Deepwater oil spill problem in ways that are linked with interests in protecting American jobs in the oil and gas industry even if it means risks to human life and the environment.

Victims: Workers Killed/Injured, Commercial Fishermen, Nation's Food Supply, Commercial Boat Captains, Tourism, State/Local Revenue, Shipping Impacts, Oil Industry Impacts, Pristine Beaches

Vividly, senators construct the primary victims of the oil spill as the workers who were killed and injured. For example, Chairman Bingaman (D-New Mexico) stated, "We should begin by remembering the 11 people who lost their lives in the explosion...and express deep sympathy for their families" (p.3a). And Senator Murkowski (R-Alaska) "[O]ur prayers continue to be with those who have lost loved ones in the explosion and with those who were injured." Recall that unlike previous oil spill events analyzed in this work, the Deepwater Horizon event had human casualties. The gravity of human loss reflected in senators' expressions of grief and condolences for the families affected can be viewed as a form of synecdoche to represent the oil spill problem as a horror story.

Indeed, most statements of senators construct people as victims of the spill. For example, Senator Landrieu (D-Louisiana) testified about economic and industry losses to the people in her state as well as the nation as a whole. "There are over 300,000 men and women that work in the oil and gas industry in Louisiana alone, and almost every state in the nation contributes in some way, shape or form to this industry, both onshore and offshore" (p16a). She later testified, "The commercial fishermen in the Gulf of Mexico harvested 1.27 million pounds of fish and shellfish, generated \$659 million in revenue. Forty percent of the nation's commercial seafood harvest is from the Gulf of Mexico. We also...have commercial boat captains...unable to operate...And so, the amount of economic damage continues to mount" (p. 31b) Her testimony constructs the extent of the problem as huge in terms of economic impacts. Additionally, by constructing victims in economic terms, Senator Landrieu defines the boundaries around what the problem includes and implies fiscal responsibility (Stone 1997).

Given her interests in victim (constituent) compensation, it is not surprising that she quantifies them in economic terms and expands the victim category to include just about everyone. Importantly, Landrieu's testimony constructs a "community" of victims with and through her counting: men and women employed in oil and gas both onshore and offshore, commercial fishermen, boat captains (Stone 1997:174). "Any number is implicitly an assertion that the things counted in it share a common feature and should be treated as a group" (Stone 1997:174). In short, Senator Landrieu constructs a community of victims that share the feature "economic damage."

Other senators offered similar testimony constructing victims of the spill to be local and national economies, workers in the oil and gas industry as well as environmental impacts. For example, in testimony between Mr. McKay of B.P. and Senator Cantwell (D-Washington), in

which Mr. McKay is being asked whether or not his company will compensate those who are deemed harmed, Senator Cantwell constructs a wide net of potential victims. Specifically, she asked Mr. McKay to specify what he meant by his statement that he would be willing to honor all "legitimate claims" and wondered if "legitimate" included [F]ishing industry both short-term and long term?" "[B]usiness loss from tourism?" "[S]tate and local governments for lost tax revenue?" "[L]ong term damages to the Louisiana fishing industry and its brand? "[T]roubles from depleted fisheries and their recovery?" "Shipping impacts?" "Impacts on further drilling operations?" "And impacts to the – to the pristine beaches that we have in this area, those are legitimate claims?" (p 35-36b). Like Senator Landrieu, Senator Cantwell expands the domain of the problem (Loseke 2003) or issue (McBeth, et al. 2011) constructing what it includes in terms of potential liability implications for the accused.

Villains: Reckless Oil Companies, Minerals Management Services (MMS), Complex Systems

Principally, senators point fingers at the oil companies involved in the Deepwater Horizon oil spill. B.P, in particular is singled out as having acted recklessly with regard to oil development processes. For example, comments construct an overall lack of safety culture within the oil industry as a whole, B.P. in particular. Senator Wyden's (D-Oregon) testimony implicates B.P. for its role in previous oil-spill disasters and suggests that he is tired of the same hackneyed replies. "And the company always says the same thing...We're going to toughen up our standards. We're going to improve our management. We're going to deal with risk. And then another such accident takes place. And we have yet more finger pointing" (p. 20b). In response, Mr. McKay's (chief executive B.P.) testimony predictably attempts to deflect blame and position the company in a better light. "We are changing this company. We've put in management systems that are covering the world in a consistent and rigorous way" (p. 20b). By

emphasizing what the oil company is doing, Mr. McKay constructs responsibility thereby deflecting charges of irresponsibility.

Transocean was also constructed as irresponsible in charges that executives sought to hide information. Senator Udall (D-Colorado) testified, "I've heard reports that your workers were instructed to sign energy and liability waivers as soon as they returned to shore…before they were even able to see their families" (p. 24b). To which Mr. Newman of Transocean defended, "We asked our workers if they had any information related to the cause of the event…I don't think it's appropriate to characterize those statements as waivers" (p. 24b).

Constructing what Stone (1997:142) refers to as an intentional causal narrative, senators paint the oil companies as villainous liars who are only out for their own economic gain. This causal story attempts to frame the cause of the oil spill as one of human intent. As expected, oil company representatives struggle to deflect blame and responsibility with counter narratives that deny charges of impropriety.

Reckless industry operators are further implicated in senate testimony for their lack of preparedness to deal with the spill once it happened. Senator Shaheen (D-Hew Hampshire), for example, asked: "Why did it take the actual spill before the company came up with the idea of the containment dome?" (p. 14b). To which Mr. McKay of BP predictably deflected responsibility by claiming ignorance and a lack of experience with this type of spill, "We've not dealt with a situation like this before" (p. 14b). Senator Shaheen then turned her attention to the other industry witnesses (Mr. Newman of Transocean and Mr. Probert of Halliburton) in order to determine the extent of research and development into oil spill response. Mr. Newman testified, "Transocean is not currently engaged in any research and development with respect to deepwater

oil spills" (p. 14b). And Mr. Probert testified "Halliburton's focus, really, has revolved to this point around the intervention of wells which require some kind of remedial activity" (p. 15b).

Senators' testimonies work to construct what Stone (1997: 193) refers to as a "radical labor version" of inadvertent recklessness on the part of oil companies. These stories hold oil companies responsible for the spill due to failures in oversight and monitoring works to push the explanation of the oil spill into the realm of intent. As Stone explains, stories constructing management conspiracy are those that suggest "management knowingly stints on safety in the interest of profits, a conscious trade-off that pushes the problem into the sphere of intent" (1997:193). That is causal stories construct the spill as intentionally caused by industry operators. As previously stated, constructing intentional cause is a powerful strategy in that it holds particular parties (oil companies) accountable for causing harm by acting with knowledge of potential consequences.

Senators further construct the spill as intentionally caused in stories that can be understood as "conspiracy stories." According to Stone (1997) conspiracy stories construct the oil spill problem "as the result of deliberate but concealed human action." That is, the spill was due to the inappropriate relationship between the oil companies and the government agency tasked with monitoring and oversight. Several comments construct the oil spill as caused by greed and self-interest of government agency representatives who stood to gain from oil revenues resulting from government/industry lease negotiations. Senator Udall (D-Colorado), for example, implied a conflict of interest in an exchange with Mr. Danenberger, "I think you're aware of ---where MMS has demonstrated its close and sometimes inappropriate relationship with industry" (p. 27a).

Similarly, Senator Wyden (D-Oregon) claimed, "[I]t seems to me there's some pretty significant safety gaps at this agency that need to be corrected as well" (p.24a). And Senator Lincoln (D-Arkansas) testified, "Some reports claim that MMS based these decisions [to not require certain devices, data, etc.] on complaints from some of the drilling companies in terms of cost, too expensive, not always reliable" (p. 26a). Here the blame for the spill is placed on the "inappropriate relationship" between the oil industry and the Federal Government constructing both industry and monitoring agency as greedy villains who put self interest above the common good. The spill is constructed as a result of the lack of oversight and enforcement by government regulators that created the conditions for a well explosion. That is, they willingly turned a blind eye, knowing full well that shortcuts could lead to a disastrous oil spill.

Finally, some senators construct a causal narrative of complex systems as observed in the testimony of Senator Risch's (R-Idaho) "[W]hen you have human activity like this where you...have a highly technical and highly sophisticated process of...developing a deep water well, accidents are going to happen....and I think everyone would concur that this is an awful situation" (p. 22a). Constructing the oil spill as caused by complex "technological systems" works in the same way as accidental causal narratives. As Stone (1997:196) writes "They postulate a kind of innocence, because no identifiable actor can exert control over the whole system or web of interactions. Without overarching control, there can be no purpose – and no responsibility."

In summary, contrasting narratives construct blame and responsibility for the oil spill consistent with interests to assign moral and fiscal responsibility. Many senators construct stories that hold the three oil companies involved in the event as responsible for redress. In these testimonies the implication that that willful intent led to the oil spill and therefore the accused

should compensate victims for losses and damages. Others charge "complex systems" pushing the causal story away from the intentional realm into the accidental realm. All in all, diverse causal narratives by senators are linked with prescribed solutions.

Solutions: Continue Offshore Oil Development, Diversify Energy Portfolio, Learn from Mistakes, More Stringent Regulation, Legislation, Change Regulatory Agency, Fine Operators

What stands out the most in prescriptive statements among senators in the Deepwater Horizon oil spill story is that we should *not* respond to this event with constraints on oil extraction and energy production. Consistent with problem definitions that construct the oil spill problem as just a part of the larger issue of dependence on foreign producers, some senate testimony emphasizes domestic production of oil as a solution to avoid importing oil from abroad. For example, Senator Barrasso (R-Wyoming) argued against moratoriums on offshore drilling, "Blocking future offshore exploration only means we will import more from foreign countries. And I'm confident that America can do a better job of developing offshore energy than Azerbaijan, Nigeria and Venezuela" (p.15a). And Senator Sessions (R-Alabama) stated, "If we don't produce oil off our shores, we'll be importing oil that was produced offshore somewhere else in the world" (p.15b).

These testimonies construct a "story of decline" which suggests that even though the oil spill is bad, if we do not continue to produce oil domestically, things are going to get a whole lot worse (Stone 1997:138). It is a strategy that political actors use to build support for particular policy proposals. Here, the policy proposal is to continue domestic offshore production in order to avoid dependence on foreign producers, despite the disastrous oil spill. Implicit in this proposal are assumptions of American exceptionalism and moral superiority as it regards energy

and natural resource development. Elected officials construct domestic oil production as a national imperative despite consequences.

However, other senators suggest we should eliminate our dependence on fossil fuels. Senator Cantwell (D-Washington) argued "Well...what I've learned from this situation is I think it's time for us to diversify off of oil" (p. 27b). Using the oil spill as a synecdoche of larger problems related to energy policy, Senator Cantwell refers to it as a justification to expand the national energy portfolio. Additionally, Senator Risch (R-Idaho) suggested that we should reconsider nuclear power as an energy resource. "Forty years ago on the first Earth Day, the – big issue was stopping nuclear power. And they were incredibly successful in stopping nuclear power. And as a result of that...we are much more reliant today on fossil fuels" (p. 22a). Again, testimonies construct "stories of decline" to justify policy action. In short, the oil spill is a synecdoche for diversifying energy resources beyond oil and for reconsidering nuclear power.

While some testimony constructs stories of decline in support of policy proposals to diversify, other comments emphasize the need to "learn from mistakes" and investigate ways to improve technologies and capabilities in oil and gas production processes. The emphasis is on the future. For example, Senator Bingaman (D-New Mexico) testified, "So, our examination of what happened here will have the goal of putting in place improved systems to ensure that this type of catastrophe never happens again" (p. 3a). Senator Shaheen (D-Hew Hampshire) testified that we should be more proactive about deep water drilling that "despite all of the precautions, that there is the potential for this kind of disaster, and therefore, having research underway that would show us how to respond in case of a disaster" (p. 15b). And, Senator Udall (D-Colorado) implied a need to investigate technological means for responding to oil spills: "It seems unfathomable to me that we didn't have any focus on technological improvements in spill clean-

up technology, since the Exxon Valdez more than 20 years ago. We've expanded our technology to get to these resources, but we seem to be using 20th century technologies to respond to what's happened" (p. 25b).

According to Stone (1997:260) the prescription to gather more "facts" about a problem in order address or solve it is an act of persuasion that attempts to "change people's behavior by operating on their minds and their perceptions of the world, rather than through rewards and punishments." Predicated on the assumption that "the pen is mightier than the sword," prescribing rational information gathering, and investigations "obviates the need for force because [information, technological capabilities] can resolve conflict" (Stone 1997:304).

Other senators propose the development of rules and regulations. In the Deepwater Horizon oil spill event, witnesses emphasize a need for more stringent safety rules and regulations because of the inherent risks involved in oil drilling practices. For example, Senator Menedez (D-New Jersey) implies a need for "more stringent regulations for deep water development," in contrast to onshore oil development practices" (p. 21a). Proposing rules and regulations are "commands to act or not act in certain ways" which inevitably results in "classifications of people and situations that determine permissions and entitlements" (Stone 1997:260). Consistent with causal narratives that hold oil companies accountable for the spill due to their lack of safety protocols, lack of preparedness are policy proposals to make requirements for these more stringent. But the "essential political nature of rules" creates types of people or organizations who share common interests. As Stone (1997:285) argues, "Those treated favorably by a rule have a common interest in preserving it, while those treated unfavorably share an interest in overturning it."

Related to suggestions to improve laws and regulations are suggestions to strengthen the *enforcement* of them. Here, decision making structures that govern industry/government interactions are constructed as fixable machines or mechanisms. For example, Senator Barrasso (R-Wyoming) suggested an independent organization. "I was wondering about the suggestion by Secretary Salazar recently that he's considering proposing splitting MMS into two...One agency would be in charge of inspecting rigs, investigating oil companies, enforcing safety regulations, the other to oversee leasing and royalties" (p. 15a).

And similarly, Senator Risch (R-Idaho) said, "[I]t would seem to me some type of an agency – and I'm thinking of a private agency – that brings together all of the companies that...are doing this kind of exploration and production would be very beneficial to them because this is a problem" (p. 22a). Senator Murkowski (R-Alaska) testified about the need for tough enforcement constructing it as a moral imperative, "We often cite our nation's strict safety and environmental laws for oil and gas development as a means to reassure Americans that we can responsibly develop our resources, but this argument will ring hollow if those stringent laws are not enforced equally stringently and objectively" (p. 5a). The implication is that laws should be developed, and they should have teeth. Prescriptions that highlight a restructuring of decisionmaking assume that a change in the structure will produce desired outcomes. According to Stone (1997), "Advocates of process reforms usually argue that a new process will produce better policies – ones that are more just, more efficient, more consistent with liberty...or more safe." Constructing changes to decision making structures is predicated on the metaphor of machines and mechanisms (Stone 1997). Agencies are constructed as composed of interworking parts. If the regulatory agency is broken, it can be fixed.

Finally, there is extensive testimony at the end of the second panel that reiterates the expectation that B.P. will be expected to pay "all legitimate claims" because of the implied fear that the company will try to get out of it. The underlying belief is that oil industry executives are uncaring, profit-mongers who will attempt to deflect responsibility. Stone argues that proposing financial sanctions is a form of inducement that seeks to change behavior of actors. In short, Senators propose control of future oil spills with the stick of financial penalty.

Not surprising, Senator Landrieu (D-Louisiana) of the state most proximately affected by the event, argued for a revision to "revenue sharing agreements." "I want to call on this committee again to re-look at the revenue-sharing proposals that have been put before this committee. Obviously, these are resources belonging to the federal government, but right now, Louisiana and the Gulf Coast states are assuming almost 100 percent of the risk to our wetlands and coastline" (p.17-18a). Here Senator Landrieu shapes her interest in a larger percentage of oil revenues at the state level by using this oil spill and implied future oil spills as a justification. In short, Louisiana doesn't want to be on the short end of the next spill. Another form of inducement, this proposal promises rewards to Gulf Coast states who assume the risk of oil development for the benefit of all states. In other words, Senator Landrieu proposes a carrot to incentivize states which stand to lose the most when oil drilling goes wrong.

In summary, senators construct causal narratives that are linked with particular interests and policy agendas. In the main, what stands out is an underlying "story of decline" narrative that constructs the oil spill as a justification for the continuation of domestic offshore drilling. Additionally, causal narratives in senate testimony work as Stone (1997) argues to assess economic costs and assign moral accountability. Following the storyline of control, senators use rhetorical devices such as stories, synecdoche, numbers and metaphors to symbolically represent

the oil spill as a problem in need of redress. Solutions constructed in testimony define the oil spill problem as controllable and include: financial compensation for a large community of victims, continuance of domestic oil production and improvements in drilling technologies and decision making structures.

Experts: Avoidable Ignorance/Worker Negligence, Complex Systems

The first panel of invited witnesses included experts: Dr. F.E. Beck, associate professor of petroleum engineering at Texas A&M University and Mr. Elmer Danenberger, retired chief of offshore regulatory programs for the Minerals Management Service, Department of the Interior. First to speak was Dr. Beck who constructed his expertise as objective and neutral, not interest-based. "Prior to joining A&M...I worked in the industry for over 20 years...And during my industry career, I have safely drilled numerous high-pressure natural gas wells. I do not claim to be an expert in deepwater drilling, but I do not see this as a hindrance. Perhaps...it is even an advantage, as I have no preference for any process, practice, or equipment package exclusive to deepwater drilling" (p. 7a). In other words, Dr. Beck was not taking any sides. Stone (1997:303-4) argues that expert testimony is persuasive in policy struggles because it is associated with the "rational ideal." "Rational persuasion is associated with voluntarism. If people can be educated, they will not need to be coerced or even induced to behave in harmony with their own and the common good" (1997:304). In short, "neutral facts" make force unnecessary (Stone 1997). With rational persuasion, we can work something out.

The bulk of his testimony was to provide information about drilling high-pressure wells and strategies for controlling pressure which, as he testified, "will be critical for you to dissect the events that led to the deep water Horizon disaster" (p. 7a). That is, Dr. Beck was there to provide the "facts" about oil drilling strategies that are "critical." This testimony can be read for

how it constructs events that led to the oil spill as an organism that can be dissected. As Stone (1997:149) writes, "The assertion that something is like an organism is implicitly a claim that it must be viewed as a whole whose importance is more than the sum of its parts." In short, Dr. Beck constructed an inadvertent causal narrative of complex systems that assigns responsibility for the oil spill event to failures in "the multiple barrier strategy."

The other expert, retired chief of the MMS testified on behalf of the regulatory agency charged with responsibility for the oil spill. He opened his testimony with expressions of condolences for families and friends of the "11 workers who lost their lives." He went on to summarize the history of offshore deepwater drilling, history of regulatory compliance and the history of blowouts. He concluded his testimony with suggestions for the future, "I want to spend the rest of my time talking about the path forward" (p. 9a). Like Dr. Beck, Mr. Danenberger constructed a complex systems causal narrative in testimonies about the interactions between multiple technologies and an inadvertent causal story of worker negligence that suggests the oil spill was a result of human error in managing one or more multiple barriers for preventing well blowouts.

Problem Definition: Accident, Rare Event

According to Dr. Beck, the oil spill is constructed as "the unthinkable" and "accident" (p. 8a). Constructing the oil spill as the unthinkable symbolically represents the problem as indicative of a story of decline to suggest that *now*, something must be done (emphasis, mine) (Stone 1997). The suggestion being that now we have experienced the worst case scenario. Further Dr. Beck's testimony works to construct the event as so rare as to be un-imaginable. The suggestion being, no one saw this coming.

In contrast, Mr. Danenberger of the MMS constructs the event in ambiguous terms. "I talked to a lot of people associated with offshore oil and gas operations, and every one of them has taken *this* personally is committed to doing everything that they can to make sure *this* doesn't happen again" (p. 8a, emphasis added). According to Stone (1997:161), ambiguity is understood as a symbolic device that "allows people to agree on laws and policies because they can read different meanings into the words." In later testimony about suggestions to prevent other events, Mr. Danenberger constructed the event as a "major offshore accident." Constructing the event as an accident suggests that it was beyond human control, which according to Stone (1997) is a predictable strategy for parties charged with culpability.

Finally, Mr. Danenberger, testimony also constructed the spill as a "low probability event" (Stone 1997). In testimony summarizing the history of offshore deep water drilling, Mr. Danenberger suggested that there is extensive history, with few failures. "[D]eep water drilling really goes back to 1965, offshore California with wells in comparable depths to the Deepwater Horizon...So there's extensive history of deepwater drilling, over 3,000 wells drilled in more than 1,000 feet of water" (p. 8a). Constructing his interests in protecting the regulatory agency overseeing deepwater drilling, he further testified: "Blowout history is better for deep water operations than it is for shallow." In short, Mr. Danenberger implies that there is a long history of compliance with effective regulations which makes his interests visible. This is not surprising, given he was testifying on behalf of the regulatory agency (MMS) that was being accused of contributing to the oil spill due to conflicts of interest.

Victims: Workers Killed/Injured, Minerals Management Service of the Department of the Interior

Dr. Beck's testimony does not specify harm or victims of harm. His testimony was focused on information about best industry practices in oil drilling. Specifically, he testified about the strategies that are used to prevent well blowouts. Mr. Danenberger, on the other hand, constructed the workers who died in the blast as victims in expressions of sympathy. "Firstly, I want to extend my sincere condolences to the family and friends of the 11 workers who lost their lives" (p. 8a). He then constructed MMS workers as victims of unfounded accusations. "I also want to express my disappointment with some of the comments that have been directed at my former colleagues with the Minerals Management Service...[T]hey expose themselves to considerable risk everyday...And ethics – these people won't take a donut from the industry" (p. 8a). Stone (1997) argues that it is predictable that those charged (directly or indirectly) with responsibility for harm, will attempt to shift blame away or onto someone, something else. Mr. Danenberger constructs MMS colleagues as blameless victims who risk their lives for the sake of others.

Villains: Workers on the Rig, Complex Systems

In the main, experts do not construct causal agents as "villains." Yet, testimonies from both Dr. Beck and Mr. Danenberger implicate the workers either directly or indirectly for causing the spill. Consistent with the "manager's version" of the inadvertent narrative of carelessness, both Dr. Beck and Mr. Danenberger suggest that workers did not follow procedures, or did not respond to tests that may have alerted them to anomalous pressure readings. Specifically, Dr. Beck, Associate Professor at Texas A&M University implied that workers failed to respond to alerts, "As we all know, we do not live in a perfect world, and there

remains the possibility that human error can create conditions whereby the design limits of a barrier are exceeded or where a barrier is not put in place correctly or in a timely manner" (p. 7a).

Again, implicating the workers as being inadvertently responsible, Dr. Beck, Associate Professor with Texas A&M University reported, "[W]hile it seems obvious the shear rams did not shear, they may have been asked to function on a piece of tubular in the well that they were never intended to function on to begin with" (p. 11a). With "personification metaphors," Dr. Beck suggested that the shear rams were asked to perform in a way not consistent with their design (Lakoff and Johnson 1980). Implicitly, he suggested that the workers did not follow proper procedures. But, Dr. Beck does not construct workers as intending harm. Indeed, he rebutted the suggestion by one senator that the oil spill was intentional in an exchange with Senator Barrasso (R-Wyoming). Specifically, Senator Barrasso asked... "[A]re these systems vulnerable to sabotage, to terrorist attack? Are these systems vulnerable either prior to installation or by someone plotting against us who was working on the rig?" (p. 15a). To which Dr. Beck replied, "The fact that...there are multiple people on the rig, multiple people, you can't do any single operation on a rig like this single-handedly...It would take a lot of people...I think that the risk of terrorism on a rig like this would be extremely minimal" (p. 16a). In short, Dr. Beck constructs the cause of the problem to be human error within complex technological systems which complicates the assignment of blame and responsibility. Stone (1997:195) argues:

In ...complex interactive systems, it is impossible to anticipate all possible events and effects, so failure or accident is inevitable. Failures also involve so many components and people that it is impossible to attribute blame in any fashion consistent with our cultural norm that responsibility presupposes control.

In summary, Dr. Beck and Mr. Danenberger construct the oil spill as a complex problem that was largely due to human error. Invoking the "manager's version" of inadvertent carelessness, experts imply that workers, trained in drilling procedures, failed in the execution of the multiple barrier strategy. Additionally, expert witnesses suggest that workers were embedded in a complex technological system that complicated the assignment of responsibility. Mostly, testimony by Dr. Beck and Mr. Danenberger was focused on the future with suggestions for how to prevent oil spills like the Deepwater Horizon.

Solutions: Learn Lessons, Investigate Technologies, Improve Regulations, Hold Workers

Accountable

Predictably, experts construct solutions consistent with their interests. Dr. Beck, Associate Professor of Texas A&M also argued, "Now that the unthinkable has happened, the industry will now need to take the lessons to be learned from the Deepwater Horizon and move forward to ensure that an accident such as this never happens again" (p. 8a). In other words, through rational scientific study and investigation, future oil spills can be prevented. The assumption in proposing study and investigation is that the oil spill as an entity can be quantified and predicted. And, as Stone (1997:305) argues, the "rational ideal" is "based on rational persuasion and voluntary behavior change." There is no need for force when there is reason.

Other expert testimony illustrates the "rational ideal" in prescriptions to investigate specific technologies. Expressly, Mr. Danenberger (Former Chief of Offshore Regulatory Program of the MMS) suggested that the committee "conduct a thorough review of blowout preventer performance considerations..."(p. 9a). Related to stories that assign blame and responsibility to failed technologies are stories that blame the tests for failing to properly assess the effectiveness of protective barriers (like the BOP, for example). In other words, some

constructions suggest that it is not that the equipment failed, but that the tests that were to alert workers about pressure anomalies were invalid. For example, Senator Murkowski (R- Alaska) asks "But what about the test itself? Is there a way to fully execute the shearing of a pipe each time that a BOP test is done without cutting off the well entirely? Are we testing what we need to test to give us the certainty then that we need" (p. 12a)? To which Mr. Danenberger of the MMS replied, "I think there probably needs to be a better program" (p. 12a). The implication being that perhaps the tests that are part of safety practices and procedures designed by the MMS are themselves unreliable. Together, expert testimonies construct solutions to the oil spill using the persuasive language of rational science and investigation. In short, future oil spills can be prevented with further study.

Mr. Danenberger constructed a need for more stringent regulations for offshore drilling. "[T]here should be a separate set of regulations...for deep water" (p. 21a). The implication is that offshore drilling is different from onshore, deep water is different from shallow water. With this testimony, Mr. Danenberger constructs offshore drilling as an activity that contains different substances than onshore drilling. As Lakoff and Johnson (1980:31) argue: "[A]ctivities are viewed as containers for the actions and other activities that make them up." Actions and activities that make up offshore oil drilling are constructed as controllable with and through regulations.

Finally, causal stories that implicate worker negligence are linked with prescriptions to focus on individual responsibility. Mr. Danenberger former chief of the MMS argued, "[W]e can't accomplish everything with prescriptive rules. There's no number of volumes that's going to tell people precisely what they have to do in every situation. So it really has to fall back to the operator responsibility" (p. 10a). This testimony can be read as a "blame the victim" narrative

which Stone (1997) argues is another take on "the control story." According to Stone (1997:144), the way the "blame the victim" narrative works is to shift the oil spill problem "from the realm of fate to the realm of control, but locates control in the very people who suffer the problem." In other words, workers need to follow the rules.

In summary, expert testimony constructs the oil spill problem as complex, but controllable. Testimony that constructs the cause of the spill as human failure in complex technological systems is linked with testimony that constructs the solution to understand complex systems and enforce worker responsibility. All in all, the oil spill is constructed as a contained and calculable event that can be redressed with the rational pursuit of "facts."

Oil Industry Representatives: Accidental Cause/Complex Systems

Last to testify at the first Senate hearing to address the Deepwater Horizon oil spill were three representatives from oil companies implicated in the oil spill event. Lamar McKay represented B.P., the principal operator in the offshore oil drilling contract along with Steven Newman of Transocean Limited and Tim Probert of Halliburton who were subcontractors to B.P. Predictably, industry representatives construct the oil spill event as a tragic accident due to complex systems. As Stone (1997) notes, accidental causal narratives suggest that the event was due to circumstances beyond control. Complex technological systems narratives work the same way. Responsibilities are so diffuse so as to complicate the assignment of blame and responsibility to any one actor or group of actors (Stone 1997). Additionally, like experts who testified in the first panel, industry representatives also construct the causal story of worker negligence, or "blame the victim." Finally, industry representatives shape their interests in deflections of blame and responsibility by pointing fingers at each other and at the MMS. In the

end, they were just following orders stipulated by the Minerals Management Service of the Department of the Interior.

Problem Definition: Tragic Series of Events, Accident

Testimonies by industry representatives construct the Deepwater Horizon oil spill as a complex problem, or "tragic series of events." Implicitly, the oil spill was not just one entity, but a series of interrelated entities. For example, Mr. McKay of B.P. America testified, "We have experienced a tragic series of events. Three weeks ago tonight, 11 people were lost in an explosion and a fire aboard the Transocean Deepwater Horizon, and 17 others were injured" (p. 3b). Mr. Probert of Halliburton stated, "The catastrophic blowout and the spread of oil in the Gulf of Mexico are tragic events for everyone" (p. 7b). Finally, Mr. Newman of Transocean testified about committing a team to investigate what caused "these tragic events" (p. 6b).

The implication in constructing the oil spill as a series of events can be read as deflecting any potential assignment of personal blame and responsibility. Following Stone (1997), when problems are constructed as due to failures in complex systems, it is difficult to hold one individual or organization responsible. Metaphorically, constructing the oil spill as a "tragic series of events" places boundaries around or isolates events as discrete objects (Lakoff and Johnson 1980). This is predictable as observers have pointed out that managers of companies implicated in Federal hearings are likely to downplay notions of culpability to protect their interests (Stone 1997, Button 2010).

Despite the "tragedy," Mr. McKay of B.P. shapes his interest in profit growth and expansion when he uses the event as a justification to continue oil production in the United States. "Tragic and unforeseen as this accident was, we must not lose sight of why B.P. and other energy companies are operating in the offshore...the Gulf provides 1 in 4 barrels of oil

produced in the United States, a resource our economy requires" (p. 5b). Implicitly, Mr. McKay constructs the oil spill as a mandate for business expansion. The Gulf is oil abundant, and oil is important for our national economy.

In short, industry representatives construct the oil spill as a tragic accident portraying the oil spill as a complex set of problems that was "tragic" because of human casualties and injuries. As expected, senior executives of the three companies construct causal narratives about the spill that work to protect the interests of their respective companies by deflecting blame and responsibility. Testimonies illustrate what one senator on the committee called "the liability chase." But, as Stone's theory (1997) suggests, this is expected given the interests of oil companies to avoid or minimize responsibility for the spill.

Victims: Workers Killed/Injured, Family and Friends of Dead/Injured Workers, Gulf Coast Residents, Subcontractors (Transocean and Halliburton)

Constructing the problem and its causes simultaneously constructs victims (those who were harmed) and villains (those who are responsible for causing harm). Principally, industry representatives construct families and friends of the dead and injured workers as the primary victims of the oil spill event along with residents in communities affected by the spill. Mr. McKay, President and Chairman of B.P. America expressed, "My deepest sympathies go out to the families and friends who have suffered such a terrible loss and to those in the Gulf Coast communities whose lives and livelihoods are being impacted" (p. 3b).

Similarly, Mr. Newman, President and Chief Executive Officer of Transocean Limited stated, "And our hearts ache for the widows, parents and children of the 11 crew members, including nine Transocean employees, who died in the Deepwater Horizon explosion" (p. 5b). And Mr. Probert of Halliburton testified, "On behalf of the entire Halliburton family, we extend

our heartfelt sympathy to the families, the friends, the colleagues of the 11 people who lost their lives and those workers who were injured in the tragedy" (p. 7b). Constructing victims as the family and friends of workers and Gulf Coast community residents creates boundaries around who/what is included as well as who/what is excluded.

Testimonies also construct the subcontracting oil companies as victims with suggestions that Transocean and Halliburton were just following the orders of the primary contractor (B.P.). Regarding the implementation of proper tests to ensure the oil extraction procedure was running smoothly, there were questions as to who authorized the use of a lighter material to replace the mud that was necessary for the final step in the procedure -- plugging the well. Senator Sessions (R-Alabama) asks Mr. Newman of Transocean. "Do you know whether B.P. made that decision or did Transocean?" Mr. Newman's response suggests that the decision was between the lease holder (B.P.) and the Federal Government. "Because B.P. or the permit holder has the relationship with the MMS, if there was a discussion between somebody and the MMS about whether or not it was appropriate to proceed in a particular fashion, that conversation would have taken place between B.P. and the MMS" (p.17b). And likewise, Mr. Probert of Halliburton testified "I need to emphasize that Halliburton as a service provider to the well owner is contractually bound to comply with the well owner's instructions on all matters relating to the performance of all work-related activities." In sum, Transocean and Halliburton were just following orders. Testimony constructs the subcontractors as victims of decisions made between B.P. and the MMS.

Given that oil company representatives were being charged with responsibility in this event, much of their testimony can be read as deflections of blame and responsibility. That is, each representative attempts to push causal explanations away from intent or willful neglect to

accident or to show the event was someone else's fault. Constructing workers and machines that inadvertently cause harm, industry representatives construct oil companies as victims of unfortunate circumstances.

Villains: Workers on the Rig, BOPs, Principal Contractor (B.P.) and the Minerals Management Service (MMS).

As has been previously discussed, Stone (1997) argues that causal stories that blame human error or carelessness in hazardous occupations such as offshore oil drilling are often constructed from two distinct perspectives: management and labor. From the management's perspectives, workers do not follow safety procedures and protocols because they are tedious and uncomfortable. From worker's perspective management fails to inspect or monitor safety protocols so as not to interfere with productivity. Like testimony from expert witnesses in the first panel, chief executives from B.P. and Halliburton point fingers at the Transocean workers who were on the rig. For example, Mr. McKay (President and Chairman of B.P. America) suggested that Transocean's drill crew did not respond to "anomalous pressure test readings." "These [readings] could have raised concerns about well control prior to the operation to replace the mud with seawater in the well in preparation for setting the cement plug" (p. 4b).

Likewise, Mr. Probert, (President, Global Business Lines, Chief Health, Safety and Environmental Officer, Halliburton) implicated the Transocean crew. "We understand that the drilling contractor replaced the dense drilling fluid in the riser with a lighter seawater prior to the planned placement of the final cement plug" (p. 8b). The implication according to some witnesses is that in the case of the Deepwater Horizon oil spill drill crews did not follow best practices to test the effectiveness of barriers that were in place to prevent the well from blowing out. Mr. McKay (B.P.) and Mr. Probert (Halliburton) construct cause as "inadvertent" (Stone

1997). That is, they blame Mr. Newman's (Transocean) workers acted with purpose by neglecting pressure readings, and/or used seawater in the cementing process which resulted in consequences that were not intended (well blowout).

However, Mr. Newman attempted to shift blame away from his company and/or his workers when he testified. "It is...clear that the drill crew had very little, if any, time to react. The initial indications of trouble and the subsequent explosions were almost instantaneous" (p. 7b). In accordance with Stone's (1997) ideas, these storylines are anticipated. It is not surprising that managers attempt to construct cause as due to worker incompetence to deflect responsibility, and in scenarios involving multiple managers, to implicate the *other* company's workers. As theorized, those charged with responsibility will construct the cause as someone else's fault (Stone 1997).

In addition to human failure, industry witnesses suggest other factors including mechanical causes or equipment failure as causing the blowout. Stone (1997) argues that stories that construct equipment failure as the cause of the problem are "accidental" in that machines that "run amok" is understood to be an accident of fate. "These phenomena are devoid of purpose, either in their actions or consequences" (Stone 1997:191). That is, blow-out-preventers (BOPs) cannot act with purpose. That the equipment did not work as designed is of no fault of the oil executives or their workers. The villains in this narrative include shear rams, blowout preventers (BOPs), the cement casing materials and the well itself. Specifically, Mr. McKay of B.P. America pointed out that the blowout preventer owned by Transocean did not function properly. "Apart from looking at the causes of the explosion, we are also examining why the blowout preventer – the BOP, as it's called – did not work as the ultimate failsafe to seal the well

an prevent an oil spill" (p. 4b). Mr. Probert of Halliburton also pointed to the failed BOP. "[H]ad the BOP functioned as expected, this catastrophe may well not have occurred" (p. 7b).

However, Mr. Newman of Tansocean implicitly holds Halliburton's cementing technologies responsible when he claimed that either the cementing procedure or the casing itself was to blame for the well explosion. "[T]he one thing we do know is that, on the evening of April 20th, there was a sudden catastrophic failure of the cement, the casing or both. Without a failure of one of those elements, the explosion could not have occurred" (p. 6b). Indeed, Mr. Newman constructs an inadvertent causal story of negligence on the part of B.P. and Halliburton in a series of "critical questions" that he said "need to be answered in the coming weeks and months." Specifically: "What caused that sudden violent failure? Was the well properly designed? Where there problems with the casing, with the full assembly? Was the casing properly cemented and the well effectively sealed? Were all appropriate tests run on the cement and the casing? Were the blowout preventers damaged by the surge that emanated from the well? Did the surge blow debris into the BOPs, which prevented them from squeezing, crushing, or shearing the pipe" (p.7b)?

Importantly, causal narratives that implicate inanimate objects construct the cause as accidental due to failed machines and processes. It is no one's fault if the BOP, the well and/or the cementing system malfunction. As Stone (1997) argues, these types of stories are not necessarily about actions as they are about unforeseen consequences. She suggests that this strategy is effective in stories such as the ones constructed in Deepwater Horizon oil spill in that it deflects blame from operators and puts it on the inanimate, unpredictable machine.

Finally, oil industry executives construct the government agency charged with industry oversight as inadvertently responsible for the spill. From the perspective of oil industry

executives, industry practices are defended on the basis that they were in keeping with regulations stipulated by the Minerals Management Service of the Department of the Interior. Testimony attempts to deflect blame away from the companies onto the government agency by suggesting that industry executives were just following federally regulated protocols. Mr. Probert of Halliburton (provider of cementing services, casing programs) said, "Everything was done in accordance with accepted industry practice and as required by MMS and as directed by the well owner [B.P.]" (p. 8b). Furthermore, Mr.McKay of B.P. testified that he was just following common industry practice that he described as "MMS regulated."

In short, stories by industry executives construct the cause of the oil spill to be due to incompetent workers, unpredictable machines and mechanisms, and the negligent oversight of the lead government agency. Predictably, fingers are pointed in several directions. Constructing the "liability chase," industry executives struggle to frame the oil spill as an accidental problem beyond their control, or as someone else's fault.

Solutions: Learn from Event, Improve Safety Regulations, Compensate "Legitimate Claims"

Like other testimony analyzed in this report, testimony by industry representatives construct solutions that are linked with causal stories. In brief, industry representatives construct the need to learn from the event, improve safety regulations and compensate victims.

Principally, industry operators construct the mandate to learn from the Deepwater Horizon oil spill to be better able to respond to a future spill, or prevent them from happening again. For example, Mr. McKay of BP mentioned, "I think what we're learning here is subsea intervention capability is something that needs to be looked at further" (p. 14b). Mr. Newman of Transocean said, "[I]t behooves us to share everything we can with respect to understanding exactly what happened so that we can prevent it from ever happening again" (p. 25b). And Mr. Probert of

Halliburton opined, "And it's certainly our expectation that, as we learn from this incident, there may well be some changes in process, procedures, or other approaches, which we would then implement as part of our global standard" (p. 30b). Constructing the event as something that can be prevented with more knowledge development is supported with metaphors of containment and controllability (Lakoff and Johnson 1980). Consistent with Stone's (1997) notion of the rational ideal, oil spills are constructed as preventable with new technological capabilities and with knowledge sharing among industry operators.

Other solutions recommended by industry witnesses include a focus on safety regulations. Consistent with causal narratives that suggested it was the worker's fault for not following safety protocols; witnesses construct the need to "put safety first." In these testimonies, industry representatives propose "rules" which simultaneously constructs expectations for who is expected to follow them (Stone 1997). For example, Mr. Newman of Transocean Limited said "[R]egardless of what the investigations uncover, ours is an industry that must put safety first....for the sake of our employees...their families and...the people all over the world who use and enjoy and rely on our oceans and waterways for their sustenance" (p. 7b). And Mr. McKay of BP testified "[C]ompanies should be made to adhere to those performance standards" (p.10b). The construction of rules is consistent with causal narratives that hold workers responsible for the spill and work to shift the blame and responsibility away from executives to the workers. As Stone (1997) argues, rules are attempts to control the actions of individuals and/or organizations. The implication is that if workers are better trained in safety protocols, then oil spills can be controlled and/or prevented.

Finally, because B.P. was the lead contractor in the Deepwater Horizon drilling operation and was being held principally responsible for the damages, Mr. McKay was asked repeatedly

about the company's intent to compensate victims. For example, Mr. McKay was asked repeatedly about the intent of BP to pay claims to injured parties to which he responded: "I'm trying to give you as clear an answer as I possibly can. We are...trying to be extremely responsive, expeditious, meet every responsibility we have as a responsible party, and that means pay all legitimate claims" (p. 36b). Senator Sessions (R-Alaska) expressed concern about the possibility that industry would attempt to avoid financial responsibility and stated in an exchange with Mr. McKay, "I believe again your answer is you should do what's right and compensate fully and not try to utilize technical defenses that are not legitimate" (p. 37b). Using container metaphors, Mr. McKay constructs the intent for B.P. to compensate "legitimate claims." Implicitly, Mr. McKay constructs "legitimate claims" as a discrete entity. Following Lakoff and Johnson (1980), the entity "legitimate claims" is made up of substances and values that do not include illegitimate claims which portend future legal battles for legitimacy on the part of victims. Indeed Senator Landrieu (D-Louisiana) asked, "[D]efine legitimate, please for us" (p. 18b). To which Mr. McKay responded, "Substantiated claims. I – I can't define the term" (p. 19b). Constructing the intent to compensate victims in ambiguous terms suggests that "legitimate claims" has more than one meaning and that meaning will have to be determined on a case-by-case basis. In short, Mr. McKay implies that victims will have to sue B.P.

All in all, causal stories are constructed from diverse perspectives to understand how the Deepwater Horizon oil spill happened. Senators construct the event as intentionally caused due to neglect and carelessness on the part of oil companies and the government agency tasked with industry oversight. And predictably, agency representatives and oil company representatives construct the event as accidental deflecting blame and responsibility. In short, like previous cases analyzed in this work, senators and witnesses construct causal stories consistent with

particular interests using symbolic representations of horror stories, ambiguity, rational persuasion and metaphors of containment and control. (See Table 10). Taken together, diverse stories are held together by taken-for-granted assumptions. In what follows, I discuss findings in terms of how narratives reveal "covert underlying presuppositions" (Hill 2005).

Table 10: Summary of Causal Stories by Diverse Storytellers in Deepwater Horizon Oil Spill

	Senators	Experts	Oil Industry
Causal	Reckless Industry/Minerals	Avoidable Ignorance/Worker	Accidental Cause/Complex
Story(ies)	Management Services,	Negligence, Complex	Systems
	Complex Systems	Systems	
Problem	Horrible Disaster,	Accident, Rare Event	Tragic Series of Events,
Definition	Catastrophe, Tragedy		Accident
Victims	Workers Killed/Injured,	Workers Killed/Injured,	Workers Killed/Injured,
	Commercial Fishermen,	Minerals Management	Family and Friends of
	Nation's Food Supply, Boat	Service Employees	Dead/Injured, Gulf Coast
	Captains, Tourism,		Residents, Subcontractors
	State/Local Revenue, Shipping		(Transocean and Halliburton)
	Impacts, Oil Industry Impacts,		
	Pristine Beaches		
Villains	Reckless Oil Companies,	Workers on the Rig,	Workers on the Rig, Blowout
	Minerals Management	Complex Systems	Preventers (BOPs), Principal
	Services, Complex		Operator (B.P.) and the
	Technologies		Minerals Management Service
Solutions	Continue Offshore Oil	Learn Lessons, Investigate	Learn from Event, Improve
	Development, Diversify	New Technologies, Improve	Safety Regulations, and
	Energy Portfolio, Learn from	Regulations, and Hold	Compensate "Legitimate
	Mistakes, More Stringent	Workers Accountable	Claims."
	Regulations, Change		
	Regulatory Agency, and Fine		
	Operators		

Discussion of Findings

Like previous oil spill cases, I explored stories about the Deepwater Horizon oil spill in congressional testimony. Similar to the Santa Barbara and Exxon Valdez oil spills, testimony constructs multiple causal stories from multiple perspectives. The main plot was that something went wrong in drilling processes aboard the Deepwater Horizon rig that led to the largest oil spill in the U.S. to date. At 205,000,000 gallons, it is nearly 20 times the size of Exxon Valdez and is more than 1,000 times as large as Santa Barbara. Some blamed the workers for failing to follow

proper procedures and best practices. Others held the operators responsible. The operators themselves engaged in what one senator referred to as "the liability chase." Several comments by chief executives blamed each other for respective failures in technologies (like the Blowout Preventer or BOP) and in procedures (like plugging the well).

Other witnesses pointed the finger at the lead government agency tasked with oil industry oversight and regulation (MMS). MMS was blamed for having too cozy a relationship with the oil industry. Because MMS stood to gain monetarily from oil lease negotiations, the implication was that they turned a blind eye; they allowed oil industry operators to cut corners in order to maximize profits. Finally, the oil industry is blamed for lacking clean up and response technology. Some senators commented that it was incredulous that with previous events such as the Exxon Valdez oil spill, that oil companies would not have more sophisticated response practices. Constructing what Stone (1997) refers to as a story of helplessness and control, the implication is that we should definitely know better by now.

Predictably, the prescriptions for redress line up with problem definitions. First and foremost in the Deepwater Horizon event is that despite the oil spill and loss to life and natural environment, testimony constructs the imperative that we must continue to drill for oil. Oil is constructed as necessary and mandatory for life and economic well-being. Furthermore, unlike the Santa Barbara story in which emphasis was placed on importing oil from foreign producers to save our domestic shores, both the Exxon and Deepwater stories denigrate foreign capabilities constructing the U.S. as morally superior in its ability to produce and distribute oil for energy. In the Exxon Valdez event, foreign carriers would likely lack the necessary financial wherewithal to pay for pollution resulting from an oil spill. In the Deepwater Horizon hearing, foreign producers lack technological sophistication and environmental conscientiousness. Constructing

a story of decline, senators and witnesses use the oil spill as a synecdoche for other policy issues

– namely fear of dependence on foreign oil. Thus, the emphasis in Deepwater Horizon
testimony is on domestic oil extraction and production because countries like Azerbaijan,
Nigeria and Venezuela are ill equipped to produce and distribute oil as efficiently and safely as
the United States can.

In addition to prescriptions to continue oil development processes, testimony points to the need for more legislation and regulation and to "learn from this incident so that it doesn't happen again." Testimony suggests that there should be some emphasis in studying blowout preventers and well completion processes to improve oil extraction practices. And witnesses agree that there is obviously a need for more stringent safety regulations. Furthermore, because of the conflict of interest between the MMS and the oil industry, testimony constructs the prescription that the MMS be split into two agencies: one tasked with oversight and regulation and the other tasked with lease negotiation logistics. Finally, senators argued for a need to compensate victims. And here the exchanges in testimony between the chief executive of B.P. America and various senators are to establish under oath that B.P. will compensate "all legitimate claims."

In general, the storytellers include the senators, the experts and the industry representatives. Diverse testimonies throughout the hearing construct the problem, the causes and the prescribed solutions from particular perspectives that are linked with objective interests. That is, senators tell stories consistent with interests to assign moral and fiscal responsibility for the spill and also to engender support for continued domestic exploration and development of oil. Experts tell stories consistent with interests to render the oil phenomenon as a quantifiable and controllable entity that can be understood with more study and investigation. And oil company representatives tell stories consistent with respective interests to continue oil development and to

avoid blame and responsibility for the oil spill by pointing fingers at each other and the Minerals Management Service for dereliction of duty.

Underlying Morals

Despite the diversity in interests and causal narratives, testimonies are undergirded by taken-for-granted assumptions that shape the stories told. The underlying morals of stories told in the Deepwater Horizon oil spill hearing emphasize that we should continue to drill for oil in the Gulf of Mexico and in the United States more generally. Most important is to not lose focus on domestic oil extraction and production. Following the pattern of stories of decline, the implication is that there will be worse human, social and natural consequences if we import oil from foreign producers who are less conscientious about human safety and the environment. Following the pattern of stories of control, testimonies suggest that we should invest in research and development to improve our technological capabilities in oil extraction processes as well as in clean up technologies. Related to emphasis on technological and procedural advancements (innovations) is the cultural belief in American exceptionalism. The United States is constructed as superior to foreign nations with regard to oil development processes and environmental stewardship.

In the final paragraphs, I review and summarize the way the oil spill was storied in verbal testimony and consider the way representations illuminate taken-for-granted assumptions.

Indeed analysis reveals underlying moral notions about maintaining and improving domestic oil extraction and production despite the risks to human life and the environment. Secondly, testimony that suggests that a change in decision-making structures will result in fewer oil spills is undergirded by assumptions that constitutional re-organization is possible and effective.

Finally, testimony that constructs the solution to the Deepwater Horizon oil spill problem as one

of compensating victims for losses and consequences is undergirded by assumptions that money can buy forgiveness.

United States Oil Producers are Superior to Foreign Oil Producers

The moral importance of domestic oil development in the Deepwater Horizon oil spill story is constructed in testimony that emphasizes the prescription to *continue* extracting and producing oil domestically in oil rich areas, the Gulf Coast region in particular despite the loss of human life. Fundamentally, the oil spill is used as a synecdoche of larger problem of dependence on foreign oil. While previous cases reveal sentiments that oil extraction and production should occur in other less beautiful, less ecologically productive places, testimony in the Deepwater Horizon oil spill hearing prioritizes the need to continue domestic oil extraction and production in the Gulf of Mexico in spite of the "tragic loss of life." Testimony that emphasizes continuing to develop domestic oil resources reflects a widely shared moral notion that the U.S. has superior practices, processes, technologies and is more conscientious toward the environment than other careless and rogue nations. Following Lakoff and Johnson, (1980), constructing the U.S. as distinct from foreign nations creates discrete entities that are identifiable by unique substances and values. The U.S. is understood as an object that contains substances and values such as superior development capabilities and respect for the natural environment. In contrast, foreign nations are constructed as containers that lack such values and substances. All in all, testimonies construct a narrative of control that depicts oil spills as preventable so long as the United States is in charge.

Testimony that emphasizes continuing domestic production is undergirded by assumptions that with rational study and investigation, practices and processes can be improved to eliminate future oil spills. Consistent with previous cases, testimony emphasizes the need to

learn from the mistakes that led to the Deepwater Horizon oil spill. Following the narrative pattern that suggests oil spills are rational, controllable entities, testimony in the Deepwater Horizon oil spill hearing implies a moral importance of science and technology. Specifically, the emphasis is to improve technological capacities in order to keep drilling for oil despite the risks to the environment and to human life. This is not surprising as Stone (1997) documents the tendency for policy problems to be storied in ways that make them amenable to "rational" study and response.

Consistent across all oil spill stories is the widely held belief that we can avoid another disastrous, catastrophic, and tragic oil spill with more study and investigation that will lead to improvements to technological processes and procedures. But it should be noted that the emphasis on technological advancement is placed on oil extraction and development practices, not clean up and response. Obvious by omission are prescriptions that we prepare for the next spill with more sophisticated response capabilities. Emphasis in oil spill stories is the idea that oil drilling practices can be perfected so as to avoid future oil spills. That is narratives of control in Santa Barbara, Exxon Valdez, and Deepwater Horizon suggest that so advanced and sophisticated are U.S. capabilities that we can drill for oil *and not* spill it.

Research and development prescriptions construct a rational and thoughtful pursuit of knowledge in the wake of disaster. Normative assumptions in stories that emphasize learning from mistakes to improve include the notion that it is possible. The underlying belief is that oil drilling processes and technologies can be improved and perfected to ensure that oil spills do not happen again.

Changes in Structure Leads to Changes in Behavior of Actors

Stone (1997) argues that blaming the worker is customary in hazardous disaster stories. She identifies two contrasting storylines, the management perspective and the worker perspective. From management's perspective, worker incompetence leads to disasters. From worker's perspective, management greed for profits leads to shortcuts in safety practices. In the Deepwater Horizon oil spill hearing, both storylines are constructed from different perspectives and lead to prescriptions to change protocols, decision-making structures or "constitutional reengineering." That is, there is a taken-for-granted assumption that changes in laws, protocols, decision making structures can and will change the behavior of actors (Stone 1997).

Causal stories blaming worker incompetence are linked with prescriptions for developing more stringent protocols and procedures and for creating and enforcing laws to hold individuals and groups accountable. Following what Stone (1997:143) regards as a variant on the story of control is the "blame the victim story" in which the dead workers on the rig are charged with not following best practices. Representations of people held accountable for the spill construct moral notions of both innocence and guilt. That is there was an implied expectation that with all the previous experience with drilling in the outer continental shelf and related consequences, industry and government should have known better and had been better prepared. Workers should be and can be better trained to follow safety practices. The implication is that oil spills can be prevented if workers act in accordance with the rules.

Testimony also paints members of the MMS as villains who had a conflict of interest with the industry they were charged with monitoring. The bureau not only was tasked with oversight of industry operations, but also benefited from revenues collected from the oil and gas industry. The implication is that the MMS was equipped with knowledge about oil drilling

processes and potential consequences, but did not hold industry operators accountable for following necessary protocols. According to Stone, another variant of the control story is the conspiracy story. Again, this narrative moves the explanation of the oil spill from "the realm of fate to the realm of control" but does so with claims that suggest "control has been in the hands of a few who have used it to their benefit and concealed it from the rest of us" (Stone 1997:143). This dereliction was constructed as a consequence of a poorly designed decision-making arrangement between the oil industry and the agency charged with its oversight.

Constructions of the oil spill problem as a result of conflicts in decision-making structures are linked with prescriptions to change decision-making structures. There is an implied imperative to strengthen safety procedures and mechanisms for enforcing important laws and regulations. For example, several witnesses called for re-organization of the agency tasked with monitoring offshore oil drilling processes. Stone (1997) argues that prescriptions for restructuring groups and processes have deep roots in American culture: "The American constitutional debates were about how to prevent tyranny and oppression by designing a system for political decisions" (1997:352). Arguably, these ideas underlie debates about how to prevent another oil spill. The tendency to promote changes in structures suggests an underlying belief that structures are not fixed, but are changeable. Perhaps for witnesses who think the oil spill was caused by a lack of oversight that the solution is to change structures tasked with this responsibility. Again the underlying assumption is one that suggests oil spills are controllable by fixing broken decision-making structures. By splitting up the agency tasked with monitoring and oversight we can avoid conflicts of interest that lead to poor decision making that contributes to oil spills. The underlying moral belief is that structures can change and that with changes, oil spills can be prevented from happening again.

Polluters Can and Must Pay "Legitimate" Claims

According to Stone (1997), a closely related strategy to establishing rules is to apply inducements as a punishment for non-compliance. Consistent with overarching narratives of control, this strategy aims to prevent behavior that may result in catastrophic loss by threatening wrong behavior with fines and penalties. In testimony about the Deepwater Horizon oil spill, witnesses construct types of punishments that should be applied to workers and operators who violate the rules and regulations. In short, testimony suggests that people should be held accountable for adhering to protocols, for sharing information, and for paying damages to injured parties.

The definition of rules and inducements simultaneously defines categories of people as responsible for adhering to rules (workers) and for paying damages (executives). But, in stories about the Deepwater Horizon, absolute responsibility for the event was complicated by alternative explanations and complex technological systems. Stories imply that Mr. McKay of B.P. America should "do what's right" and "not try to utilize technical defenses." In short, testimony attempts to lay moral responsibility at the feet of B.P. despite complications in the assignment of blame. There is an implied assumption that oil executives might try to cut corners, to avoid time-consuming safety measures in order to maximize profits and to define claims as "not legitimate" to avoid financial responsibility.

Prescriptions in Deepwater Horizon testimonies emphasize that we not only learn from the spill and re-organize decision-making structures, but that those deemed responsible will honor *legitimate* claims. That is, witnesses constructed the imperative for the oil companies to pay penance to all individuals and groups deemed harmed by the oil spill. There was an extensive exchange toward the end of the second panel in which Mr. McKay of B.P. was asked

repeatedly if he would ensure that the company would honor all legitimate claims. The expectation is that the oil company should 'do the right thing' and compensate all victims fully. But, from the perspective of Mr. McKay, the emphasis was on paying "legitimate" claims simultaneously constructing a category of *illegitimate claims*. In other words, the oil company agreed to honor claims that were deemed legitimate laying the foundation for future proofs of legitimacy. Principally, constructing the mandate for oil companies to pay claims reflects an underlying belief that oil spill damages can be fixed with money. Again, illuminating the broader narrative of stories of control, testimonies that suggest damages and harms from the Deepwater Horizon oil spill can be recompensed.

Conclusion

In conclusion, Deepwater Horizon testimony constructs multiple stories that define the oil spill problem, victims and villains as well as proposed solutions as controllable, calculable and financially redeemable. This event was constructed as the most tragic among cases reviewed in this report due to the loss of human life. Yet, testimony is undergirded by assumptions that death is bad, but lack of domestically produced oil is worse. Within stories, there is an ideal that oil spills should not happen, but also an expectation that they will. Further, testimonies largely construct the oil spill phenomenon as controllable and preventable with and through human agency. Emphasis on maintaining domestic oil production suggests that risks to human life and the environment are ultimately worth the value that oil provides for national energy and security interests. With prescriptions to study and learn from mistakes, re-organize decision-making structures and compensate victims, stories about Deepwater Horizon are similar to stories about Exxon and Santa Barbara. We should continue to improve oil *production*. Obvious by omission are stories that suggest we evaluate oil *consumption*.

In the final chapter, I synthesize the stories told about three different oil spill events. I consider similarities and differences and theorize about taken-for-granted widely held beliefs that underlie stories told about the events. By exploring the way actors make sense of oil spills in policymaking narratives, I aim to shed light on how culture works. What comes into view is that culture works in policymaking by providing the preamble or scaffolding of sorts that enables and/or constrains stories told in congressional hearings about oil spills. That is, culture is visible in the rhetorical devices and narrative strategies used by storytellers. Stories within rule-bound institutional contexts such as Senate hearings illuminate the ways in which interests and ideas are linked. In all oil spill hearings in this report, each respective event was storied from multiple and conflicting perspectives: elected officials, experts and environmental advocates, and oil industry executives who push and pull the causal definition of the event from intentional to accidental consistent with interests to assign blame or to avoid it. While multiple stories were told, they all reveal taken-for-granted assumptions about what is deemed problematic, what is valued, who or what is guilty, who or what is innocent, and what should be done in the future to avoid problems like oil spills with symbolic representations. All in all, stories construct the oil spill problem as amenable to human control.

CHAPTER SEVEN: SYNTHESIS AND CONCLUSIONS

I began my research with an interest in how culture works in policymaking. Informed by debates in policy studies that seek to identify mechanisms that influence policy design, implementation and change, I used a fairly broad conception of culture. That is, following Schudson (1989) I regarded culture as a set of tools that actors use to construct meaning and culture as ideational force (Padamsee 2009) that enables and constrains meaning making. To accomplish my investigation, I reviewed diverse arguments from across disciplines that have contributed to the wider mosaic of theoretical and methodological approaches, and grounded my work within the constructionist paradigm. Works in phenomenology (Berger and Luckmann 1966, Schutz 1945), narratology (Fisher 1985, Ewick and Silbey 1995, Atkinson and Delamont 2006, Gubrium and Holstein 2009), social problems construction (Best 2008, Loseke 2003, Spector and Kitsuse 2009 [1977]) cultural sociology (Alexander 2003, Geertz 1973, Griswold 2013, Padamsee 2009, Smith 2005, Swidler 1986), public policy (Stone 1997, Hajer 1995, Fischer 2003, Jones and McBeth 2010) and disaster studies (Clarke 2006, Steinberg 2006, Stallings 1995, Tierney 2007) were synthesized to build my theoretical, methodological and analytical frameworks.

In short, this study contributes to the conversation about cultural influence on problem and solution definition within public policy debates with a focus on narratives in policymaking. I argue that this study makes three major contributions to studies in public policy. First, by conceptualizing culture as both tool kit and ideational force this analysis provides "variables" to colleagues who seek to create comprehensive models of policy processes. Second, this study

exemplifies a systematic, narrative comparison that addresses calls for more rigor in qualitative work. It illustrates the use of congressional testimony as narrative data that is organized according to narrative structures as an analytical comparative framework. I used a narrative comparative approach to execute a systematic exploration of cultural meanings that are visible within social processes such as policymaking, which also informs our understanding of world making in general. Following scholars who suggest that narratives are reflexive (Ewick and Silbey 1995, Loseke 2007), I argue that examining stories within a particular social process that seeks to make sense of a "breach to the canonical script" (Bruner 1991), analysts can observe the taken-for-granted assumptions that contribute to story coherence in general (Rideout 2013). Finally, this study makes practical contributions that include illuminating the taken-for-granted. I call attention to the unquestioned assumptions in oil spill stories that can be linked with the wider social order.

Synthesis

In this chapter I synthesize the analysis of causal stories about oil spills to highlight the way culture works in policymaking. First, I discuss the way actors use narrative strategies to define the oil spill problem and its redress consistent with particular interests. Here, I summarize how narratives in policymaking illuminate the way actors use "culture as tools" (Schudson 1989, Swidler 1986). In short, I argue that actors use narrative strategies in predictable ways. Second, I reflect on how diverse stories reveal taken-for-granted ideas and underlying morals that hold stories together. I assert that different stories are undergirded by shared beliefs regarding the purity and preciousness of the natural environment, the power and potential of knowledge and learning as well as the unquestioned expansion of innovations and technological advancements

in pursuit of resource development. Here, I comment on how culture works as a force that shapes the types of stories told (Schudson 1989).

In my concluding paragraphs, I discuss how this analysis elucidates the way culture works in policymaking with the application of a narrative comparative approach. In my view, beliefs not only shape and influence diverse representations of policy problems and their redress in policymaking, but are also linked to "reality" or the wider social order in general.

Specifically, I argue that culture provides for and perpetuates what Stone (1997) refers to as paradoxes in policymaking. Indeed, causal stories "do more than convincingly demonstrate the possibility of human control over bad conditions," as Stone (1997:204) argues. They work to perpetuate the social order. While stories reveal "ideal" cultural beliefs and ideas, they also make what some social scientists refer to as "real culture" visible as well (Montague 1950, Myrdal 1945). By organizing my conclusion around these paradoxes I attempt to answer the call by Gubrium and Holstein (1997) to illuminate the links between representations or ideas and reality or material interests. In so doing, I engage with the possibilities that this awareness creates for positive social change. In the end, I acknowledge the limitations of this work as well as future applications and directions.

Stone (1997) argues that stories in policymaking are strategic. Political actors represent various interests with symbols, numbers, drama, poetry, metaphor, and synecdoche. In this work, I have argued so far that strategies for constructing versions of truth are visible in stories told about oil spill events. Furthermore, I argue that observing narrative strategies by diverse storytellers illuminates links between objective interests and symbolic ideas. Observing this link provides evidence of how storytellers use culture as a "tool box" to make sense of events such as oil spills (Schudson 1989, Swidler 1986). In this section, I synthesize stories told in three

different institutional contexts, about three different oil spills that occurred in different places and times: the Santa Barbara Oil Spill (1969), the Exxon Valdez Oil Spill (1989), and the Deepwater Horizon Oil Spill (2010). Despite vast differences, I note enduring similarities that provide support for Stone's (1997) theories regarding the subjective constructions of policy problems. In the main, Stone (1997) argues that policymaking is anything *but* an objective, rational reduction of costs and benefits. Indeed, she argues it is a struggle. Specifically, she writes (1997:202): "In the polis, causal stories need to be fought for, defended, and sustained. There is always someone to tell a competing story..."

Who Constructs Oil Spill Problems?

In the three cases I observed, storytellers in Senate hearings about oil spills include the senators on the committee or subcommittee which organized the hearing and witnesses from the oil companies implicated in the oil spill events. Additionally, other interests were represented in each case. (See Table 11). For example, in the Santa Barbara hearing, representatives from Santa Barbara County spoke as did a panel of environmental conservationists. In the Exxon Valdez hearing, representatives from the U.S. Coast Guard and other governmental agencies (Environmental Protection Agency, Fish and Wildlife, etc.) testified. And in the Deepwater Horizon hearing, "experts" including an associate professor in petroleum engineering from Texas A&M University, and a retired chief of the government agency charged with industry monitoring and oversight both offered testimony. These witnesses were invited to present testimony before senators and offered stories consistent with their interests.

How Do Storytellers Construct the Oil Spill Problem?

Predictably, storytellers in oil spill hearings construct stories that are consistent with particular interests. For example, senators construct the oil spill problem consistent with their

Table 11: Storytellers in Oil Spill Hearings

Santa Barbara Subcommittee on Air and Water Pollution of the Committee on Public Works	Exxon Valdez Committee on Commerce, Science and Transportation	Deepwater Horizon Committee on Energy and Natural Resources
Senators (Committee Members)	Senators (Committee Members)	Senators (Committee Members)
Oil Industry (Union Oil Company)	Oil Industry (Exxon Corporation)	Oil Industry (British Petroleum [B.P.], Transocean and Halliburton)
Environmental Point of View/ Conservationists (Wildlife Federation, Sierra club, American Forestry Association, Wilderness Society, Wildlife Management Institute, Izaak Walton League, Citizens Committee on Natural Resources)	Environmental Point of View Government Agencies (EPA, National Oceanic and Atmospheric Administration, Office of Oceanography and Marine Assessment, Fish and Wildlife Service)	
Local officials (Santa Barbara County)	U.S. Coast Guard (USCG), Department of Transportation	"Technical Experts" Retired expert from Minerals Management Service and Associate Professor of Petroleum Engineering at Texas A&M University

interests in legislation and constituent support. They tell what Stone (1997) refers to as an inadvertent causal story of avoidable ignorance on the part of the oil companies that were charged with responsibility. In the Santa Barbara case, Union oil was constructed as "reckless" and should have known better than to drill in a geologically unstable area. They should have been more prepared for a spill. In the Exxon Valdez case, the Exxon Corporation is constructed as the "double cross boys," traitorous with its disregard for valuable natural resources. The U.S. Coast Guard is also blamed for dereliction of duty letting a "convicted drunk" pilot a barge full of oil through one of the most ecologically vulnerable places – Prince William Sound. And in Deepwater Horizon, oil companies are constructed as reckless and potentially criminal with their "too cozy relationship" with the Minerals Management Service, a bureau within the Department of the Interior tasked with the management of "ocean energy and mineral resources on the Outer Continental Shelf" (http://www.mms.gov/aboutmms/).

That is, senators attempt to "show that the low-probability effects of an action were accepted as a calculated risk by the actor" (Stone 1997:203). In other words, senators construct oil companies as reckless risk takers. Principally, senators construct citizens, residents, tourists as well as beaches, coastlines, marine and wildlife as victims harmed by oil spill events in economic terms. With this narrative strategy, senators attempt to push the definition of the problem into the realm of intent in order to assign moral and fiscal responsibility with policy instruments such as fines and penalties as well as laws and regulations (Stone 1997). (See Table 12).

Witnesses representing environmental interests tell similar stories as senators consistent with their special interests to protect the environment. Attempting to define the problem as one of human control, environmental agents construct an inadvertent causal narrative that explains the oil spill as a consequence of avoidable ignorance. That is, environmental agents suggest that the oil spill could have been avoided if it were not for conflicts of interest between government and industry and if industry did not place profits ahead of resource protection. For example, in Santa Barbara, the spill is constructed as an example of a larger problem of environmental neglect. In Exxon Valdez, the spill is described as the "San Francisco Earthquake of ecological catastrophes." Exxon Oil is constructed as "complacent in a very risky process" and inadequately prepared. Predictably, victims are constructed as sea birds, marine mammals, coasts and rivers. Like senators, environmentalists attempt to show that industry was negligent and assumed that the risks associated with drilling and transporting oil were acceptable (See Table 13).

Table 12: Summary of Causal Stories by Senators

	Santa Barbara	Exxon Valdez	Deepwater Horizon	
Causal Story	Avoidable	Avoidable Ignorance,	Reckless Industry/Minerals	
	Ignorance/Complex	Reckless Operator,	Management Services, Complex	
	Systems	complacent	Systems	
		Industry/Government		
Problem	Disaster, Accident	Disaster, Tragedy	Horrible Disaster, Catastrophe,	
			Tragedy	
Victims	Californians, Business	Prince William Sound,	Workers Killed/Injured, Commercial	
	Owners, Coastlines	Marine Life, tourists,	Fishermen, Nation's Food Supply,	
		Residents	Boat Captains, Tourism, State/Local	
			Revenue, Shipping Impacts, Oil	
			Industry Impacts, Pristine Beaches	
Villains	Careless Industry,	Exxon Corporation, U.S.	Reckless Oil Companies (British	
	Complex Systems	Coast Guard, Captain	Petroleum in particular), Minerals	
		Hazelwood, Government,	Management Services, Complex	
		Industry	Technologies	
Solutions	Study and Investigation,	Protect Coastal	Continue Offshore Oil Development,	
	Legislation	Environment, Fine Exxon	Diversify Energy Portfolio, Learn	
		Corporation, Federalize	from Mistakes, More Stringent	
		Response, Ban Supertankers	Regulations, Change Regulatory	
			Agency, and Fine Operators	

In contrast, industry representatives (and others charged with responsibility) construct competing narratives consistent with their interests to deflect blame and accountability for the event. Predictably, industry representatives were interested in minimizing damages and liabilities associated with the oil spill. For each event, oil company chief executives attempt to

Table 13: Summary of Causal Stories by Environmentalists

	Santa Barbara	Exxon Valdez	Deepwater Horizon
Causal Story	Avoidable Ignorance/Complex	Avoidable Ignorance, Reckless	NA
	Systems	Operators, Complex Systems	
Problem	Catastrophe, Synecdoche	Catastrophe, Tragedy, Disaster	NA
	(symptom of larger problems)		
Victims	Wildlife, Beaches, Birds	Fish and Wildlife, Coasts and Rivers	NA
Villains	Careless Federal Government,	Exxon Corporation, Federal	NA
	Industry	Government, Captain Hazelwood	
Solutions	Investigation, Organizational	Improve Captain Certification	NA
	Change, Operator Fines, Stop	Processes, Create Oil Spill Liability,	
	Domestic Drilling and Import	Assess Environmental	
	Oil from Abroad	Consequences, Improve Contingency	
		Planning	

"show that the problem is caused by an accident of nature" (Stone 1997:203). That is, industry representatives construct accidental causal stories and/or complex systems stories to explain the spills. Accidental stories include forces of nature or acts of God (geological faults in the Santa Barbara case) and unpredictable aspects of personal health (alcoholic captain in the Exxon Case). Complex systems stories are about the complexity of technological systems that involve multiple parts and functions such as unforeseeable failures of blowout preventers, cementing procedures, and the failure of "multiple redundancies" in the Deepwater Horizon case. (See Table 14).

Table 14: Summary of Causal Stories by Oil Industry Representatives

	Santa Barbara	Exxon Valdez	Deepwater Horizon
Causal Story	Accident of	Accident (Alcoholic captain),	Accidental Cause/Complex
	Fate/Unavoidable	Unavoidable Ignorance,	Systems
	Ignorance	Inadvertent (Reckless captain), and	
		Complex Systems	
Problem	Accident, "not a disaster"	Disaster, Accident	Tragic Series of Events
Victims	Union Oil	Alaskans, Exxon Corporation	Workers Killed/Injured, Family
, recinis		Thuskuns, Emon Corporation	and Friends of Dead/Injured, Gulf
			Coast Residents, Subcontractors
			(Transocean and Halliburton)
Villains	Federal Government	Reckless Captain, Alyeska Oil	Workers on the Rig, Blowout
		Spill Contingency Plan/Federal	Preventers (BOPs), Principal
		Government	Operator (B.P. and the Minerals
			Management Service (Federal
			Government)
Solutions	Improve Cleanup	Learn from Event, Improve	Learn from Event, Improve Safety
	Technologies, Learn	Company (alcohol and drug	Regu7lations, and Compensate
	from Experience	testing) Policies, Continue	"Legitimate Claims."
		Domestic Exploration of Oil	

Other stories were told from various perspectives: For example, Santa Barbara County representatives (in Santa Barbara) constructed an inadvertent causal story that blamed the reckless oil industry and the Federal government for being "hellbent to lease the channel." In Exxon Valdez, The U.S. Coast Guard rebuts charges of irresponsibility by suggesting it was the government's fault for not providing an adequate budget to do the job right. And in Deepwater Horizon, the retired MMS chief rebuts the charge of impropriety by arguing that workers

"[W]on't take a donut from the industry." Instead, Mr. Danenberger of the MMS suggested it was the workers on the rig who failed and did not follow proper safety protocols. Indeed, the story constructed from the perspective of the Minerals Management Service attempts to explain the event as being caused by complex technological failures. This is not surprising as the MMS was partly charged with responsibility for the Deepwater Horizon oil spill. As Stone (1997:203) theorizes, some parties use causal strategies to "show that the cause of the problem is so complex that only large-scale policy changes at the social level can alter the cause." (See Table 5). This narrative strategy is similar to constructing the event as accidental in that responsibility is diffuse, blame is difficult to assign.

Table 15: Summary of Other Causal Stories

	Santa Barbara	Exxon Valdez (U.S. Coast	Deepwater Horizon (Associate Professor,	
	(Santa Barbara	Guard and Department of	Texas A&M, and Retired Chief of	
	County	Transportation)	Minerals Management Services)	
	Representatives)			
Causal Story	Avoidable	Carelessness, Avoidable	Accidental Cause, Complex Systems	
	Ignorance	Ignorance		
Problem	Tragedy	Disaster	Accident, Rare Event	
Victims	Santa Barbarans,	Coasts and rivers, U.S. Coast	Family and Friends of 11 Workers who were	
	Residents, Tourists,	Guard (lacks budget support)	Killed/Injured. Minerals Management	
	Businesses,		Service Employees	
	Aesthetic Beauty			
Villains	Careless Industry,	Exxon Corporation,	Human Error (Workers on the Rig),	
	Federal	Complacency, Captain	Complex technologies (Multiple Barriers,	
	Government	Hazelwood	Blowout Preventers, Shear Rams, etc.)	
Solutions	Stop Drilling,	Learn from Situation, Assess	Lean from Event, More Technical and	
	Protect Beauty	Contingency Plans, Transport	Regulatory Experts, Streamline Outer	
		Oil more Safely, Avoid	Continental Shelf Regulatory Regime,	
		Foreign Carriers, Improve	Expand Role of Coast Guard, Collect	
		Legislation, Create Oil Spill	Failure Data, Develop Best Practices,	
		Liability Fund.	Publish Safety Rules. Focus on Operator	
			Responsibility. Share Knowledge	

In summary, my data shows that political actors construct causal stories that are consistent with their individual/group interests using narrative strategies and rhetorical devices. Inadvertent causal stories are predictable in that assigning blame or "intentional cause" is difficult given all the alternative explanations that are possible in accidental causal stories. It is

difficult to cast oil companies and government, as willfully or knowingly causing a spill to happen which inevitably challenges the assignment of blame and responsibility – a fundamental goal in policymaking (Stone 1997).

While stories are diverse, all are told with symbolic devices including stories (stories of decline and stories of control), metaphors, numbers, synecdoche and ambiguity (Stone 1997). These devices can be understood as "cultural tools" that actors use to make sense of oil spills (Schudson 1989 and Swidler 1986) and can be captured as evidence of how actors are "agentic" in their use of culture. In the main, political actors construct the oil spill problem as something amenable to human control and fixable through human agency. Using container metaphors (Lakoff and Johnson 1980) or "containment metaphors" (Stone 1997), storytellers construct oil spills as distinct entities that happen in discrete places, with finite and countable consequences.

Using synecdoche, storytellers, construct the oil spill as symptomatic or indicative of larger more important problems such as general environmental neglect, and reliance on foreign oil producers. Using numbers, storytellers quantify the scope of the oil spill problem in terms of volume of oil, and victims harmed in terms of millions and billions of dollars. These data show how culture works in policymaking as a box of tools to accomplish a "definition of the situation" (Goffman 1959) consistent with particular interests and goals. As Schudson (1989:155) writes, "Individuals select the meanings they need for particular purposes and occasions from the limited but nonetheless varied cultural menu a given society provides." Thus, in response to my initial research question, I learned that culture works as a set of tools that actors use to make sense of oil spill events.

I also learned that culture works as an ideational force (Padamsee 2009). Following Vaughan (2004:322), who argues "What matters is going beyond the obvious and dealing with

the contradictions produced by going below the platform and the elephant," I wanted to go beyond what seemed to me to be "the obvious" that actors tell stories in pursuit of self/group interest. As Schudson (1989) argues, culture does not *only* work as a set of tools that actors use to accomplish aims. Indeed, in policymaking, actors must tell stories that are believable (Stone 1997). So, I analyzed all stories together to capture the influence of *culture as ideational force* on stories told about oil spills (Padamsee 2009). I asked how do these stories make sense? What are the taken-for-granted assumptions that provide for story coherence?

What is Taken-For-Granted or Assumed in Stories that Define Oil Spill Problems and Solutions?

Stories about the Santa Barbara, the Exxon Valdez and the Deepwater Horizon oil spills reveal particularities that set them apart from each other. Yet, despite different contexts, times, scope, and consequences, there are important similarities. In the main, stories reveal taken-forgranted assumptions about how the world should work that can be understood as cultural influence on policymaking. In oral testimony in three oil spill hearings I observe taken-forgranted assumptions about beauty and nature, knowledge and learning as well as innovation and technology.

Following Shudson (1989:154), I explored policy narratives about oil spills for how they reveal culture as "ideas, symbols or propaganda" that can be "manipulative" or causal. Importantly, the tools that policy actors use to construct stories about oil spills make sense in *context* (read: institutional, political, economic, social and technological). The analytical choice that enabled me to see cultural influence this way was to conceptualize oil spills as cultural objects in and of themselves. Arguing with Schudson (1989:154), "culture...comes embodied

both in some kind of material form [oil spills] and some kind of social practice [storytelling in congressional hearings]."

So, what do diverse stories told from diverse perspectives assume or encourage audience members to assume in their telling? In the main, the use of metaphors of containment, machines and mechanisms and organisms in diverse causal stories assume that places can be compartmentalized and assessed in terms of economic value and importance; they assume that knowledge hierarchies can categorize people in terms of guilt and innocence, as well as credibility and ignorance; and they assume that bureaucratic structures and technological processes and practices can be diagnosed, dissected and improved. (See Table 6). All in all, stories assume that oil spills can be fixed, controlled and prevented with and through human agency...(*American* agency in particular).

Beauty is Precious

First, diverse stories across all cases suggest that nature and beauty are precious and valuable. Evident in testimony that constructs settings of oil spills as discrete entities, "containers" of economic value, diverse stories across all cases suggest that nature and beauty are precious. Undergirded by metaphors of containment (Lakoff and Johnson 1980), stories construct settings of oil spills as unique places that contain substances that are valued (tourism, recreation, wildlife, fisheries). Consistent across cases are stories that construct oil spills as "disasters" or "catastrophes" in unique settings. Santa Barbara was constructed as the "Riviera of the West," "One of the most beautiful areas in the country." In Exxon Valdez, Prince William Sound is constructed as ecologically unique," with "mountainous coastlines overlooking gravel beaches." In Deepwater Horizon which lacked witnesses speaking on behalf of environmental

interests, a senator constructed the "pristine beaches" of Destin Florida among the many potential victims of the oil spill.

Table 16: Taken-For-Granted Assumptions that Shape Oil Spill Stories

	Beauty is Precious	Knowledge is Power	Innovation is Progress
Santa Barbara 1969	"Buffer zones," "residential zoning controls," "Riviera of the West." Linked with "60% of our basic incomeis derived from these sources (recreation/tourism)20% comes from research and development industries attracted by our environmental assets."	More study to "take into account the geological history, likelihood of seismic accidents," "learn from mistakes," "provide full disclosure of all info relevant to public understanding of disaster recovery," "study feasibility of marine sanctuaries." Testimony also suggests that lay people are not expected to know, but experts, high level officials, executives are.	More proactive policymaking, regulations and fines to prevent future oil spills, oil industry should cooperate to "clean things up," "investigate new oil processing technologies that do not require 'unsightly platforms' that harms the 'esthetic environment,' "save domestic oil, import from abroad," "create "new theories of liability."
Exxon Valdez 1989	"Ecological uniqueness," "wildlife refuge," "mountainous coastline overlooking sandy beaches, and pine forests sheltering productive marshlands." Linked with economic estimates: "\$100 million local fishing industry," "\$10 million herring," "\$160 million in fish," and the prescription to create a "cleanup fund."	"Assesscontingency plansensure they are updated accordingly," "learn from mistakes," "improve random testing for drugs and alcohol," "long term analysis of ecological effectsto present a bill to Exxon," "find out size of disaster," "revise policies and procedures."	Create "emergency group," "Federalize" spill clean-up, "continue domestic transportation of oil," "improve "oil transportationDo not minimize reliance on oil shipments," "avoid foreign carriers," "we do not want to go to smaller tankers."
Deepwater Horizon 2010	"Environmental impacts" "Pristine beaches," "depleted fisheries," "further drilling operations." Linked with "cost estimates by experts now say that it could be as high as \$14 billion," \$3.4 billion seafood industry," Gulf of Mexico harvested 1.27 million pounds of fish and shellfish, generated \$659 million in revenue," long term damages to Louisiana fishing industry and its brand," "shipping impacts" liabilities tied to "normal trespass and pollution laws of the state.	"Look at revenue sharing agreements," "learned from mistakes," "share [industry] knowledge," Oil executives claim ignorance about cleanup technology in situations like this. "We've not dealt with a situation like this." "Take lessons learned and move forward toensure this never happens again." "[N]eed technical and regulatory experts on committee," "collect failure data," "prompts publication of safety rules."	Continue domestic production. "Our nation will need a lot of oil for a longtime to come." Diversify off of oil into nuclear energy resources, change corporate (oil) culture, create new private agency to oversee oil lease negotiations, create new regulations, safety standards, "streamline OCS regulatory regimeExpand role of Coast guard Offshore Advisory Committee.

These representations of environmental damages are linked with economic estimates and evaluations. For example, in Santa Barbara County, the "beautiful coast" is constructed as providing 80% of revenues in tourism, recreation, property values and taxes. In Exxon Valdez, the setting translates into a "\$100 million local fishing industry, \$10 million herring," "\$160 million in fish." And in Deepwater Horizon, environmental impacts are constructed as potential liabilities that could be as high as "\$14 billion." From these data, I conclude that policy stories reveal widely held beliefs that particular places are economically valued and commoditized for natural beauty and resource abundance. There is an underlying belief that with money we can restore nature. With money we can fix oil spills.

Knowledge is Power

Another taken-for-granted assumption regards the power of knowledge in assignments of blame and responsibility. For example, testimonies extol the virtue of knowledge and expertise that are visible in prescriptions for more study and investigation, to learn from mistakes, to improve plans and protocols, to share knowledge between industry operators and with concerned citizens. In Santa Barbara, witnesses prescribe "more study to take into account the geological history, likelihood of seismic accidents," and "study the feasibility of marine sanctuaries." In Exxon Valdez, witnesses construct the necessity first to "assess the size of the spill," to "conduct random testing for drugs and alcohol," and to "conduct long term analysis of ecological effects." In Deepwater Horizon, witnesses say we should "collect failure data," and publish "safety rules" to "learn from mistakes."

I also observed a lack of knowledge as a form of power in deflecting blame and responsibility. Some people should know better, and only some people have access to knowledge. In Santa Barbara, county officials testified that they were not given an opportunity

to protest lease negotiations; that as "laypeople" they lack technical knowledge. Further testimony suggests that reports about geological vulnerability were proprietary and meant only for some audiences. In Exxon Valdez, the oil company representative claimed ignorance about the mundane practices of licensing captains as a way to deflect blame and responsibility. And in Deepwater Horizon, industry representatives claimed ignorance about data that may have been collected to help determine the cause of the event. Further, they constructed inexperience as a warrant for absolution with the claim "We have never dealt with a situation like this before." I conclude from these data that knowledge is assumed to be powerful. There is an underlying belief that knowledge development makes problems controllable through rational assignments of blame and responsibility. With knowledge we can control oil spills.

Innovation is Progress

Finally, testimony reveals assumptions about growth and innovation. The development of new practices and products is tantamount to progress. In Santa Barbara, witnesses prescribe the creation of government agencies, new laws and regulations, even "new theories of liability" as solutions to fix broken agencies, laws and regulations. Similarly, in Exxon Valdez, witnesses prescribe the creation of an "emergency group" to respond to future oil spills and to avoid foreign carriers, improve domestic oil transportation. Finally, in Deepwater, testimony emphasizes the need to continue domestic production of oil despite risks to life and nature. Witnesses recommend creating a private agency to eliminate conflict of interest between industry and government. From these data, I conclude widely held beliefs about innovation and progress. There is an underlying belief that change is good for the sake of change in bureaucratic policies and procedures, as well as technological capabilities. And, that change will lead to better practices and behaviors. With innovation we can prevent oil spills.

In sum, my analysis supports Stone's (1997) assertion that causal theories work to "demonstrate the possibility of human control over bad conditions." Further, it shows that assumptions about the ability to control places, people and processes shape the stories told in congressional hearings by diverse actors. But, following Stone (1997) causal stories reveal more than the cultural tools used to represent problems, and cultural forces that provide for the use of cultural tools to construct coherence, they work to perpetuate or challenge the status quo. In what follows, I launch from observations of how culture works in policymaking to theorize about how culture works in worldmaking.

Linking Representations with Realities

Synthesizing analyses enabled me to draw some preliminary conclusions about how representations in causal narratives about oil spills are linked with realities or the wider social order. Following Vaughan (2004, 2008), I reflect on my analysis by way of "analogical comparison" in order to theorize about how culture works in general. As Vaughan (2008:66) writes:

By analogical theorizing, I mean developing theoretical explanations by cross case analysis that compares similar phenomena in different social forms that vary in size, complexity, and function. Shifting the unit of analysis from one social form to another is the essence of developing theory by analogical comparison.

In my analysis of different congressional hearings about oil spills across time, I have already argued that culture works as a set of tools and resources that actors use to make sense of oil spills. I have also argued that culture works as a force that shapes and constrains stories told. In what follows, I triangulate my analysis with the literature to argue that widely held beliefs evident in policy stories are linked with dominant ideologies regarding cost, efficiency, and quantification (Vaughan 2004), the "rational ideal" (Stone 1997), and continuous growth in

production and consumption (Vaughan 2004) via *American* innovation. As Stone (1997:204) argues:

Causal theories...do more than convincingly demonstrate the possibility of human control over bad conditions. [T]hey can either challenge of protect an existing social order...[T]hey can assign responsibility to particular political actors...[and] [They] can legitimize and empower particular actors as 'fixers' of the problem.

Beliefs about Beauty and Nature Protect Capitalist Economic Order

Taken together, oil spill stories construct a widely held belief that we should protect our natural environment from natural, technological and man-made "disasters." In oil spill stories, testimonies construct the oil spill problem as disastrous because they occurred in unique and precious spaces. Lakoff and Johnson (1980) theorize that "territoriality" is a basic human instinct. Accordingly, we define territories according to the values and substances that they contain. As Grieder and Garkovich (1994:1) have argued landscapes are "the symbolic environments created by human acts of conferring meaning to nature and the environment." It has also been argued that constructing a place as "unique" distinguishes it from other places that are not considered unique (Sagoff 1974). As Sagoff (1974:206) argues, "It is the demand for the unique or scarce that makes it valuable." Writing about the rationale for environmental protection, Sagoff provides a theoretical account for the paradox observed in testimonies about oil spills. That is, unique natural environments are not constructed as valuable for their own sake, but for the utility natural environments can provide in terms of economic and recreational benefits. In short, the natural environment is precious and valuable especially in the cultural context of a capitalist society that relies on exploitation and use in goals for growth and advancement.

Controlling the natural environment has been according to Drake (1992) a Western cultural theme since the 19th century. And as the work of Mary Douglas (2003) suggests, it is

pollution and uncleanliness from oil spills that creates necessity to control. While Douglas discusses control rituals as they pertain to human practices associated with personal hygiene and health, her insights are relevant to the present work as well. Policy stories about oil spills reveal beliefs and ritual practices as they pertain to our ability and necessity to control the natural environment. And controlling our natural environment is not only about compartmentalizing it into parts for recreation, residence and resource extraction, but in maintaining the visual aesthetic of cleanliness. Following Douglas (2003) if our environment is perceived to be unclean, it is perceived to be disordered. By extension, if it is perceived to be clean, it is perceived to be ordered.

Moral values related to the beauty of our natural environment are upheld by beliefs in what constitutes contagion and pollution or environmental disaster. As has been argued in this study, we label events as disasters when they are large, visible and ugly especially when they occur in contexts labeled beautiful, unique, or pristine (Beamish 2002, Button 2010). Labeling something a disaster renders it something that is objective and can be controlled (Stone 1997). As Douglas points out, labeling reduces ambiguity about what an event or condition is. It seems most vexing for us are visible, acute disasters such as oil spills that defile our beautiful beaches, pristine waters and precious wildlife with black goo. As Douglas (2003:7) writes: "For us, sacred things and places are to be protected from defilement." Beautiful places are tantamount to sacred places. Beautiful coastlines are rare and unique and contain substances we value. However, the implied importance is to maintain and protect unique places for future productive use by government, industry, urban and suburban development and individual residents and tourists.

What oil spill stories suggest is that visible contamination is most problematic. We are not inclined to treat as pollution or disaster those things we cannot see (Beamish 2002, Button 2010, Giddens 2011). If the visible evidence of oil spills is out of sight, then oil spills are out of mind. The perception of order is linked to visible aesthetics. Actions are called for and justified by our collective fear of danger that the black goo causes to our sanctuaries, wildlife refuges, food supplies and coastlines. Order is brought about through efforts to clean and restore that which has been defiled. Evidence of this restoration must be visible. Washing pelicans, cleaning beaches and coastlines, removing visible oil slicks from the water all constitute evidence that we have eliminated toxins due to oil spills. Consequently, we do not see a need to act toward or control that which is not visible. Throughout hearing testimony, there is an obvious lack of suggestion that we pursue different ways to provide for national energy, security and economic comfort that would be more consistent with an ideal to protect the natural environment. But that is not surprising as Stone (1997:203) notes "One major causal story – that the capitalist economic and political system is the cause of innumerable social ills – is consistently shut out."

This lack of comment about changing or modifying consumption of natural resources illuminates a contradiction between ideal beliefs in environmental stewardship as noted in prescriptive statements in policy stories about oil spills and real practices of environmental dominion or control. Unintended consequences of this belief are that we tend to continue practices and neglect conditions that may be problematic, but are not perceived as defilement, pollution, contamination or something that we can restore or control because we cannot see them (Beamish 2002, Birkland 1997) or because we do not expect them to happen in certain places (Stallings 1995).

We pursue economic valuation of nature with the idea that we can hold the polluter financially accountable for restoring polluted environments back to normal (Fourcade 2011). As observers have noted that "the wonders of nature, once destroyed, cannot be reproduced. But many things can be replaced. Natural environments are among them" (Sagoff 1974:206). Neglected is the possibility that we cannot recompense nature, which is made abundantly clear in the literatures that address problematic conditions related to biodiversity losses and other non-visible microbiological threats to our shared ecosystem (O 'Riordan and Stoll-Kleeman 2002). Policy stories about oil spills suggest that they are destructive to our perceptions of order and beauty, but they also represent the potential for order in that we believe we can clean it up and restore pattern/order and beauty. Furthermore, by visibly restoring beaches back to "normal" aesthetics we believe we are protecting nature and by extension ourselves.

Beliefs in the Power of Knowledge Assigns Blame and Responsibility for Fixing Problems and Compensating Victims

Another widely held belief that is illuminated in policy stories about oil spills concerns the ideal that we learn from oil spill events so that we can avoid another one in the future. In policy stories about oil spills, we see evidence of the widely held belief in our ability to investigate, study and learn from events so that we can avoid future disastrous conditions.

According to Stone (1997:305) the commitment to knowledge development is consistent with the "rational ideal" which portrays "a vision of society where conflict is temporary and unnecessary, where force is replaced by discussion, and where individual actions are brought into harmony through the persuasive power of logic and evidence." Prescriptions for more study and investigation are consistent with what Hajer (1995) refers to as the ecological modernization thesis. Hajer (1995:25) defines ecological modernization as a discourse that "recognizes the

structural character of the environmental problematique but none the less assumes that existing political, economic, and social institutions can internalize the care for the environment." That is oil spill damages are calculable. Not only do we think we must protect and control nature, but that with linear, empirical study...we can.

Whether it is to pursue a project of investigating geological conditions and technological processes as in the Santa Barbara case, environmental impact and evaluation studies as in the Exxon Valdez case, or sophisticated technological capabilities as in the Deepwater Horizon case scientific study and investigation was proffered as a way to respond to the spill and avoid oil spills in the future. Principally, in the policy arena, the actors who can create and distribute knowledge are those authorities vested with the power to investigate – "experts." Stone (1997:28) argues, "Much of what we 'know' is what we believe to be true. And what we believe about information depends on who tells us (the source) and how it is presented (the medium, the choice of language, the context)."

Many scholars have written about the authority of science and scientists in policy making (Collingridge and Reeve 1986, Fischer 2000, 2003, Hilgartner 2000, Jasanoff 2009). In particular, Fischer (2000) comments on what he refers to as the "age of expertise" for how it stymies democratic participation in policymaking about issues affecting our shared environment. In short, only some people can create knowledge in policymaking which constructs a hierarchy of credibility (Loseke 2003). My analysis also directs attention to the possibility that beliefs shaping the production of knowledge create a hierarchy of liability in which actors are exonerated from responsibility because of presumed ignorance. I argue that ignorance is a form of power that is used to deflect blame and responsibility.

Implicit in the ideal of knowledge production to respond to and solve oil spill problems is the ideal that it be shared. Comparing stories across time, testimony suggests that we should create more knowledge about the natural environment, and technological capabilities to produce oil and respond to oil spills and that such knowledge should be shared between government and the lay public, and between oil companies. In short, the ideal in knowledge production is for transparency. Yet, oil spill stories suggest that institutional barriers, privileges and protections, proprietary rights to specialized knowledge, obstruct knowledge sharing and transparency. Not everyone can participate in knowledge production or knowledge apprehension regarding geological conditions, oil extraction and production technologies, or oil spill clean-up practices and procedures as is argued by Fischer (2000) and others. So, while testimony is predicated on a belief in the ability to learn from past mistakes and to chart a more proactive course for the future, this study is consistent with other investigations that suggest knowledge is often specialized for specific audiences (Collingridge and Reeve 1986, Fischer 2000, 2003, Jasanoff 2009). Access to knowledge is privileged.

As Weiland, Weiss and Turnpenny (2013) recently argue, the link between knowledge making and implementation in policymaking is inconsistent with stated ideals. Often the rationalistic, linear model of knowledge making creates boundaries between experts and laypeople, "science and non-science" which has consequences for policy events and conditions that adversely affect our shared natural world. Their work introduces a collection of articles that consider issues related to science in policymaking especially as they pertain to ecological challenges and political efforts to address them.

Similarly, Button (2010) writes at length regarding the obfuscation of knowledge in the wake of disaster and catastrophe. He analyzes several "disaster" cases and notes themes and

patterns that illustrate a profound contradiction between ideals for knowledge transparency and real processes of "withholding, sequestering, privatization and colonization" of knowledge. First, due to our cultural commitment to rational scientific investigation, lay knowledge and/or qualitative science is considered irrational and idiosyncratic. Button (2010) argues that instead of producing knowledge about disaster from experience and investigation, knowledge makers, brokers, etc. produce uncertainty and doubt. Specifically, policy stories reveal uncertainties regarding clean-up methods and remediation, immediate and long term impacts for environment and public health and accurate cost accounting for losses to environment and communities. Second, following divisions between what is considered science and non-science are divisions between who is considered knowledgeable and who is considered ignorant. Button writes (2010:167):

In our highly professionalized culture, the public debate over controversial topics is overwhelmed by privileged arguments. Lay questions, objections, and attempts to resolve uncertainty are often dismissed as uninformed, lacking in scientific vigor, irrational and at times almost hysteric.

Indeed, in stories about oil spills testimony suggests that lessons are *not learned* and knowledge is *not shared*. As Button's analysis of disaster construction illustrates there are complex historical, political and corporate interests in "shaping, hiding, attacking, packaging and spinning" knowledge in favor or maintaining the status quo. Stone (1997:318) too observes that "secrecy is integral to both markets and governments." So the paradox is clear: ideals for democratic participation in knowledge making and sharing are contradicted by the mandate for secrecy in government and industry. Indeed, from a market perspective, competitiveness depends on keeping trade secrets close to the vest.

Obfuscation of knowledge is a prevailing theme in many recent government attempts to cover up knowledge, or strategically erase hard drives when the public demands access to what is

considered "public record." The analysis of oil spill stories as told in congressional hearings supports Button's (2010) findings that there are tensions between our taken-for-granted support for knowledge and learning and the institutional processes and tactics that create and maintain barriers to know. But, as this analysis reflects, knowledge is linked to evaluations of culpability and innocence. Those accorded authority to know are expected to take responsibility whereas actors presumed ignorant are not. Related to our commitment to rational science in policymaking is what Button (2010) refers to as our "cultural focus on technological fixes" in the wake of disaster. A theme I also observe in oil spill testimony from 1969 to 2010. In short, the cultural influence of ideas related to growth and expansion shapes policy stories.

Beliefs in Innovation and Technological Advancement Legitimize American Expansion of Authority, Power and Resources

The final widely held belief that emerges in all oil spill stories is unquestioned support for fixing what is constructed as broken to prevent future oil spill problems through American led changes in bureaucratic structures and technological capabilities. Related to the widely shared belief in the ability to calculate risks, damages, and assessments by labeling and defining problems through linear scientific investigation is the belief that we [read: United States] can build a better oil trap to prevent another spill from happening in the future. In addition to assumptions that new technologies can prevent oil spills are assumptions that new bureaucratic structures can produce more efficient and safe decisions, regulations, actions (Stone 1997). Recommended changes in decision making structures reflect what Stone refers to as "constitutional engineering." These solutions presume that change in membership in an organization or group dynamics will produce better policy. I conclude that widely held beliefs about innovation and change is consistent with what Vaughan (2004:331) regards as dominant

ideologies linked to continuous growth in production and consumption or what she calls the "culture of production." There is consistency in testimony for maintaining supply of oil whether it is foreign, or domestic through improvements in oil drilling and transportation. And the way to accomplish steady production is via changes in bureaucratic structures, and American technological expansion.

Reliance on oil for energy is largely unquestioned throughout testimonies. While some senators in the Deepwater Horizon hearing may have said we need to diversify off of oil, no one suggests constriction. We live in what Beck (1992) calls a "risk culture" or what Harbers (2005) calls a "technology culture." In short, we believe that we have the technology, if it is not broken, do not fix it. And if it is broken, build a new one. Ultimately, beliefs in innovations have implications for our globally shared reliance on scarce resources including air, land, water and oil. We cannot build another Earth (but, perhaps we can colonize the moon).

Testimonies that prescribe the creation of new agencies, new regulatory regimes, emergency groups, and changes to existing agencies advocate for innovations in bureaucratic structures that are linked with the assignment of "authorities, powers and resources" to prevent future oil spills (Stone 1997). Importantly, prescriptions emphasize the power of the United States as "fixers" of the *oil spill problem* and by implication the *reliance on foreign oil problem*. What becomes vivid are deeply held values related to *American* production and distribution of oil resources.

According to beliefs in American exceptionalism, the United States is cast as innovative leaders in prescriptions for bureaucratic and technological change. We can design "fool proof" technology, multiple redundancies, shutoff devices, blow-out preventers and impervious tankers that will ensure that there will be no more oil spills that is linked to our shared tolerance for risk.

Risk taking is part of culturally shared ideals as has been argued by several scholars (Beck 1992, Fischer 2000, Giddens 2011, Hood, Rothsetin and Baldwin 2001). Recently, Rosa, Renn and McCright (2013) argued that in our quest for advancements to improve circumstances and quality of life, we have developed a shared tolerance for risk that has inevitable implications for environmental sustainability.

Paradoxically, in all oil spill stories analyzed in this work, technology is constructed as both contributing to the problem as well as the solution. Specifically, technology is implicated in oil spill problems with regard to clean up and mitigation. In the Santa Barbara case, witnesses lamented a lack of knowledge and capacity to deal with the spill and not surprisingly prescribed the development of more sophisticated technologies to prevent or at least respond to future oil spills. Similarly, in the Exxon Valdez case, stories highlighted the need to focus on clean-up technologies due to a gross lack of planning and preparation caused by faulty protocols. In stark contrast, the Deepwater Horizon case comprises stories that implicate a number of inter-related technological processes as potential causes of the oil spill that eventuated in prescriptions to improve designs and capabilities. Indeed, witnesses in Deepwater expressed concern that not more progress has been made in clean-up and mitigation given the precedents of other catastrophic oil spills. Unmasked by this frustration is the belief that perfection is possible. Or at least that we can "tame" uncertainty (Rosa, Renn and McCright 2013).

The emphasis on technology as the problem and technological innovation as the solution is explored in the vast sociological examinations of science and technology (STS). From a political science perspective, isolating the cause of problems as a result of human agency is necessary in order to obtain recourse (Stone 1997). Complex causes such as the failure of multiple redundancies as in Deepwater Horizon, or a lack of technical capacity to handle oil

spills as in Santa Barbara and Exxon Valdez are frustrating in that no clear responsibility can be assigned. BOPS cannot pay. We are left with the prescription that we "learn lessons," tweak processes, re-engineer decision making, eliminate conflicts of interest, fix widgets and then back to business as usual. Yet, this reduced conception of policy problems and solutions inevitably leaves out the social and natural complexities that provide for the hegemonic power of sci-tech that has inspired a turn to "radical constructivist" studies of the inter-relations between human and non-human agents implicated in complex policy problems such as oil spills (Harbers 2005).

The ideals expressed with regard to the potentials of technology are connected to what Harbers (2005) regards as the optimistic view of technological advancement in general.

According to Harbers, such conception is historically rooted in the "scientistic world view" that is part of our "technology culture" or what Fischer (1990) refers to as "technocracy." Perhaps it is useful in a policymaking context to blame the machine when it is taken-for-granted that machines cannot act, or more importantly, they cannot pay damages. Only humans can be fined. Harbers (2005) along with the contributors to his edited work advance a sociological research agenda that seeks to flesh out the inter-dependence between science, technology and society. Specifically, he points to works that help to reconsider the concepts of agency and normativity. As Harbers argues (2005:257), perhaps complex systems, artifacts, standards and regulations can be held accountable as causal agents as they enable the acts of human others.

Scientific knowledge and technological systems on the one hand and social, political and moral relations on the other hand are mutually constituted in one and the same historical process...Following the principle of radical symmetry, both humans and non humans are granted agency.

Embedded in our shared commitment to technological advancement is a taken-for-granted moral normativity for all things technical...including prescriptions for turning to renewable technologies as an alternative to oil dependence for life as Giddens (2011) suggests.

Giddens takes technological advancement as an inevitable aspect of modern life: "As a result of the advance of science and technology, we have long since crossed the boundaries which used to separate us from the natural world (2011:21)."

Whether innovations in bureaucratic structures and technological developments are the answer to policy problems such as oil spills or climate change, they will be co-produced in similar ways as all innovations throughout history via the complex interactions between ideas and practices, theoretical concepts and empirical operationalizations. Giddens (2011) posits a host of catalysts that might bring about awareness and innovation toward abating or at least adapting to consequences stemming from our reliance on oil for energy, economy and security. However, pessimistically, he suggests that any efforts may be stymied by our instantiate belief that there is no problem unless it is visible, tangible and acute. That is, we have to see it to believe it and we have to believe it to act. Alternatively, it may be more productive to reconsider the boundaries that separate us from the natural world as is suggested by the works of scholars who advocate a radical constructivist examination of the interplay between the moral and the normative, the ideal and the real (Harbers 2005). We may believe in the power of multiple redundancies to prevent disasters. But we may also forget just how dependent we are on something as small as the honey bee for our mere existence.

Conclusions

How does culture work in policymaking? This work suggests that culture provides ideals or widely shared beliefs about how the world should work. In this study, I set out to investigate the cultural influence in policymaking by pursuing an interpretive analysis of stories told within the policymaking context of congressional hearings about oil spills. By beginning with a focusing event, I was able to define my sampling frame and the selection of my data in a

systematic way providing for rigor in my qualitative analysis of stories. Further, by pursuing a narrative analytic approach, I was able to document explicit descriptions of settings, plots, characters and morals to facilitate comparisons across time. Scholars have shown that policy issues and solutions are storied (Stone 1997, Fischer 2003, Jones and McBeth 2010), so examining policymaking with emphasis on stories told is analytically useful. Stories have beginnings, middles and ends providing for analogical comparison both within cases and between (Vaughan 2004).

By comparing stories told in congressional hearing by similar actors (government officials, experts and scientists, and industry professionals), interests are visible in that all witnesses represented particular organizational and institutional interests. My study provides support for arguments that suggest culture is a set of tools that actors use (Schudson 1989, Swidler 1986) through social processes such as policymaking. Furthermore, this analysis provides support for theoretical ideas that suggest that culture is a causal ideational influence on stories told (Schudson 1989, Padamsee 2009). Via analogical comparison of diverse stories across time, I was able to link representations with realities by focusing on taken-for-granted assumptions that undergird or hold stories together. In the end, I compared stories within cases and between cases to illuminate widely shared beliefs that constitute "cultural influence" on policymaking. In so doing, I shed light on the way culture shapes or influences the wider social world in general.

Cultural influence applies to the wider social order in that while we may share and support similar moral ideals about the sanctity of nature, knowledge sharing and innovation and growth, particular accounts in congressional hearings reveal "real" tensions that can be linked with systems of inequality. We do not protect, we control nature. As such we divide nature into

categories of worth – valuable, not valuable, beautiful, not beautiful. These proverbial lines in the sand are linked with social division more generally. For example, within particular oil spill stories, I note the way speakers describe the problem as a disaster for the "natural beauty" of the Santa Barbara coast, or a disastrous contaminant for the "pristine waters" of Prince William Sound that is linked to the real practices of the development of protective sanctuaries or for moratoriums on drilling and shipping practices. Implicit moral evaluations of types of places are inevitably linked to moral evaluations of individuals who reside there or do not, as the case may be. Furthermore, implicit in the idea that we can reduce nature to price tags suggests that we prioritize the ability to control rather than protect nature. We can pollute all we want, as long as we have the ability to pay "legitimate claims."

With knowledge and learning the ideal is to share and to be transparent, but the practice is to keep it under wraps for competitive advantage or protection. Compartmentalization of knowledge into types of expertise (science and non-science; sense and nonsense) inevitably divides people and has implications for democratic participation (Fischer 2000). Some people have knowledge and are expected to know better, while others do not and are not. Particularly I observe the way speakers refer to particular groups and individuals in terms of assumptions about knowledge and credibility that suggests to some extent who has authority to speak or describe oil spill events and to propose solutions. Arguably, in institutionally bound spaces such as a Federal Senate hearing, there are rules about who can say what, when and for how long – that counts as "credible" testimony.

Finally, innovations and technological advancements are ideally understood as the sine qua non of growth and progress. This widely held belief guides support for government investment into research and development to advance technologies, which is observed in the

emphasis on science, technology, engineering and math (STEM) at all levels of education (Breiner, Harkness, Johnson and Koehler 2010). So influential is the belief in innovation and expansion, that a narrative of constriction of consumption, limiting growth, or rethinking, retooling the capitalist economic order is what can be called a *nonstarter*, or a proposal that has no chance of acceptance in a cultural context that assumes growth is good.

While, stories suggest that multiple barriers and multiple redundancies lead to multiple explanations of multiple failures, I observe the way technological advancement, additional research and development are often offered as the prescription to address oil spills and clean-up efforts. Innovations are also prescribed to avoid another oil spill event in the future that assumes change is good for change sake. And American led technological developments in oil development and transport are assumed to be superior to foreign innovations. Critically, our shared reliance on oil is unquestioned. That is attention is aimed at innovations to advance *oil production* and not to constrict *oil consumption*.

Additionally, our commitment to technology is linked with our collective tolerance for risk (Beck 1992, Giddens 2011). Constructing oil spills as rare has implications for investing in clean-up technologies. The rarity of oil spills (acceptable risk) justifies a lack of investment in clean-up technologies directing more attention to perfecting extraction and distribution technologies (Freudenburg and Gramling 2011, 2012). With multiple barriers and redundancies in oil production processes perhaps it does not make sense to invest in spill technologies when we can just improve our capabilities to eliminate the possibility for error akin to organizational quality management practices known as "Six Sigma" (Pyzdek and Keller 2003). In the Six Sigma approach to quality management, it is believed that the potential for error can be reduced to zero. The belief that technology can be perfected assumes the possibility of perfection among

human operators. Similarly, the belief in a change in decision making structures assumes that a change in membership, or size of agency or committee leads to better policies.

Despite the ways cultural beliefs in policy stories about oil spills shape and maintain differences and divisions in the wider social order, one thing unites all characters in all stories: a shared need for food and shelter; oxygen and water. While this study calls attention to the power of widely held beliefs in shaping policymaking, it also points to possibilities in attending to the paradoxes between the ideal and the real or what is said and what is done. All in all, oil spill stories might come across as the "same ole song and dance," – that greedy oil producers and the Federal Government run rough shod over our shared natural environment for economic gain, that they say the same old thing over and over, we will fix it, we will pay for it, we will develop more sophisticated technologies. Oil spill stories can be taken together as cautionary tales. That is, no amount of money in the "superfund" is going to enable us to buy more water, more air. Despite all innovative advancements, all the King's horses and all the King's men cannot put a broken Earth back together again.

Importantly, this study of policy stories about oil spills should not be read as an indictment against the oil industry or the Federal Government or individual culprits named in particular oil spill disasters. Arguing that culture works as a set of tools and ideational force suggests that we are all share responsibility for the production of oil spills whether we are driving the boat or not. It is not oil producers and governmental supports that are to blame for oil spills. We are all complicit as we are all socially *and naturally* embedded. We are producers of our culture as much as we are produced by it. We maintain and perpetuate demand for oil for our lives and thereby legitimize the existing social order. But, this study also should not be read as an indictment on our individual practices either. We use and rely on oil to create, sustain and

perpetuate important social bonds with and through others. As sociologists have long argued, human survival is a group project. However, I think it should be read as evidence that beliefs are powerful and shape what we do or what we can and cannot do. Further they are enduring. In the end, I hope the study inspires further exploration of the beliefs that collectively shape our social and natural worlds. I hope it encourages us to consider ways we can collaborate across natural, social and biological divides to critically imagine possibilities for global stewardship of our shared environment. While oil is important and necessary, water is arguably more so. No water, no life.

That said, I must acknowledge the limitations of my study. First, I am one reader of hearing testimony. My interpretation of statements is influenced by my positionality as a white, married, middle class, middle aged, mother who resides in a rural community. I am interested in my own influences on the natural environment and engage in practices to minimize what is referred to as my "carbon footprint." However, I also recognize my complicity as I am also a consumer of oil in my "going concerns" (Gubrium and Holstein 2000). Second, I only examine one hearing per oil spill event. And for each oil spill event there were several hearings held over the course of several years. Furthermore, I privilege the "official narrative" by examining stories told by elite actors. My policy narratives are historical and archival and shaped by the institutional contexts in which they were told. Other stories about oil spills should be examined to further investigate and compare how actors story events and how stories reveal underlying beliefs and values to illuminate the ways persistent social inequalities are supported by social processes.

Finally, I argue that beliefs are influential in shaping policymaking and world making in general, but I do not account for specific causal linkages or what could be understood as "proof"

that beliefs *do* anything. In the main, I argue from the social psychological position that human actors must first make sense of events in order to understand how to act toward them (Mead 2009). As the Thomas theorem asserts, what is constructed as real is real in consequence (Merton 1995). I do not argue that beliefs are obdurate, static or unchanging things, however I do posit that with and through repetitive joint action of actors within complex systems and institutional arrangements they can appear to be (Blumer 1969). Historically transmitted moral notions of how the world should work inform our interpretations. As Swidler (1986) suggests, beliefs are among our cultural tools. But as this study also suggests collective beliefs are among our governing constraints (Schudson 1989). In short, we socially shape our cultural context that shapes us.

Future scholarship is needed to strengthen the research agenda established here.

Particularly, more narrative comparative research can be applied to a variety of other narratives both within and without the policymaking arena to illuminate taken-for-granted assumptions about the social and natural worlds. But to respond to calls for more rigor in qualitative analysis as suggested by Atkinson and Delamont (2006), empirical, interpretive studies must be systematic providing for "quasi inter coder reliability" checks. That is, other investigators can assess my theoretical claims by examining the same or similar data with a structural narrative comparative framework to either support, refute or extend my findings.

With respect to the current work, I feel that it is yet incomplete. As I continue to develop this project with examinations of other oil spill stories, I will analyze more hearings from both the senate and the house as well stories about each spill reported in the mass media.

Furthermore, I will continue to expand my research agenda beyond oil spills to investigate other types of events and conditions deemed problematic in society as exemplified by Button's (2010)

and Smith's (2005) work. In short, I am interested in exploring diverse policy stories and asking counterfactual questions such as: In what narratives can nature be public or shared? Can ugly be precious or valuable? Can "disaster" be positive? In what narratives can ignorance be power? Can poetry be expertise? In what narratives can fixity, or tradition be progress? Can reduction be growth? Such investigation could provide more nuanced insight into the work of culture in social processes such as policymaking that inevitably lead to shared consequences and world making whether we participate or not in their social construction. Nowhere is this investigation of more critical importance than with matters of sustainability pertaining to our shared planet. So far as we know...it is the only one we have.

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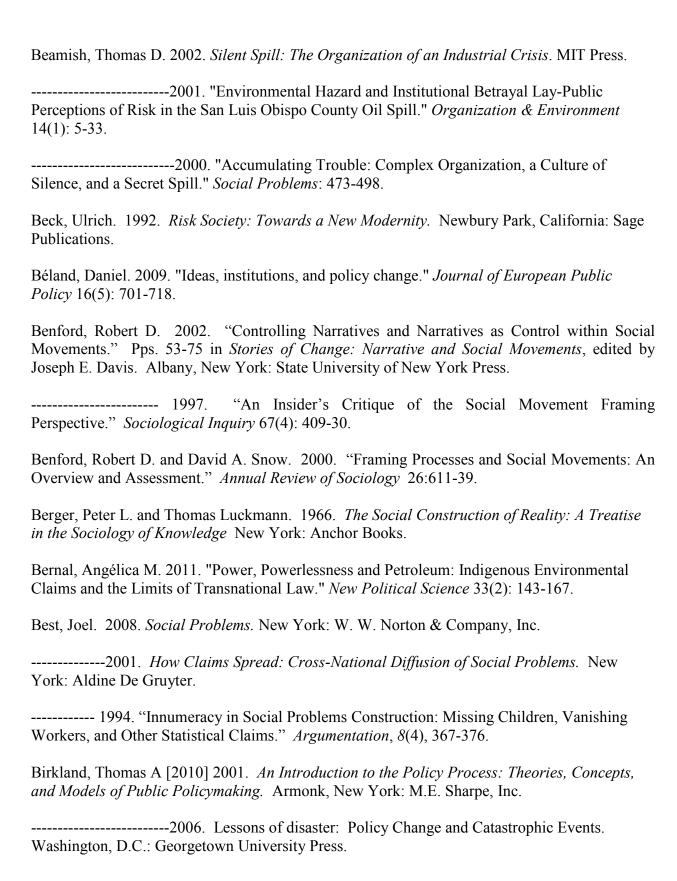
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