

Normative Orders in the Coast Guard Response to
Melting Arctic Ice:
Institutional Logics or Anchoring Concepts

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ABSTRACT

Underlying institutional forms are normative orders which give meaning to rules, norms, practices and customs. It is only recently that scholars have seriously considered the role of normative orders in institutional dynamics. Two meta-theories of institutionalism offer competing visions of how these normative orders are invoked. The Institutional Logics Perspective calls normative orders “institutional logics” and suggest that they are invoked in a consistent stable fashion. The Pragmatist Institutionalism approach calls normative orders “anchoring concepts” and suggests that they are used in less predictable ways to produce meaning. This study introduces the concept of fidelity to capture the difference between these two approaches and test which approach may offer a more accurate account of how normative orders are invoked in practice. The study uses the case of the USCG response to melting Arctic ice to study this issue by focusing on the two most dominant normative orders of American government. The study relies on interviews conducted with USCG personnel dealing with the agency’s response to melting Arctic Ice. The data is then analyzed through a narrative analysis framework. The study finds that normative orders are invoked, in this case, in a manner more closely aligned with Pragmatist Institutionalism. This finding has implications for how administrative judgement is understood especially with respect to public agencies.

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GENERAL AUDIENCE ABSTRACT

Rules, norms, practices and customs are all types of institutional forms which derive meaning from something called normative orders. Normative orders help individuals make determinations on things such as whether rules are “good”/“bad” or when those rules are appropriate to apply. While these normative orders are understood to be important, they are not yet well understood. Two recent approaches which attempt to better define normative orders offer competing visions. The Institutional Logics Perspective calls normative orders “institutional logics” and suggest that they are invoked in a consistent stable fashion. The Pragmatist Institutionalism approach calls normative orders “anchoring concepts” and suggests that they are used in less predictable ways to produce meaning. This study introduces the concept of fidelity to capture the difference between these two approaches and test which approach may offer a more accurate account of how normative orders are invoked in practice. The study uses the case of the USCG response to melting Arctic ice to study this issue by focusing on the two most dominant normative orders of American government. The study relies on interviews conducted with USCG personnel dealing with the agency’s response to melting Arctic Ice. The data is then analyzed through a narrative analysis framework. The study finds that normative orders are invoked, in this case, in a manner more closely aligned with Pragmatist Institutionalism. This finding has implications for how administrative judgement is understood especially with respect to public agencies.

Dedication

To my wife, Courtney, for her continued encouragement to pursue all the conversations and writing that made up this this work. I cannot ever repay the countless sessions where she patiently listened to my fumbling about to make sense of the world around me. I would love to declare that the fumbling is all done, but she knows me better than that.

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The remainder of my dissertation committee composed of Anne Khademian, Jim Wolf and Adam Eckerd have all also contributed to my maturation as a scholar. I owe a great debt to each one. They have not only shown me what is possible but challenged me to take myself seriously as someone with something important to say. Dr. Wolf deserves special thanks in this respect through his sage critiques that helped me balance the need for thoroughness with the need to actually finish a dissertation.

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providing the necessary information to write this dissertation but because it opens a window into the great work they do daily.

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Chapter 1: A Question of Fidelity

A unique challenge faces the US Coast Guard (USCG) in the Arctic today. Whatever the reason, Arctic ice is diminishing. Diminishing ice creates navigable waters where there had been none before. This in turn leads to greater activity in this body of water which has potential safety, security, and environmental concerns all of which the USCG has responsibilities for in the maritime domain (Borgerson, 2008; Conley & Kraut, 2012; Conley, 2010). The increase in activity has not been matched with an increase in funding that would enable the USCG to acquire the specialized training, equipment, and information needed to increase their engagement in this region (Gao, 2010; GAO 2011; DHS OIG, 2011; O'Rourke, 2012). While this challenge is unique because the changes are brought about through Arctic ice melt, it shares many of the characteristics that normally pose a challenge to organizations such as matching objectives to resources and dealing with a shifting operating environment.

The Coast Guard, like other parts of American Bureaucracy, is concerned not only with their task environment but also exist in an institutional environment to which it must be attentive. An institutional environment is, "characterized by the elaboration of rules and requirements to which individual organizations must conform in order to receive legitimacy and support" (Scott, 2008, p.132). It matters, in other words, not only what the USCG does but how it goes about doing its work. Such work must conform to what is perceived as legitimate activities for a government agency which has been a source of some debate in public administration (Wamsley et al., 1992). Underlying institutional forms such a practices, rules, norms and customs are also symbolic systems. These systems are necessary in explaining why it is that certain institutional forms yield legitimacy and support. These systems are termed normative orders in this dissertation. As the Coast Guard responds to the challenges posed to it by melting Arctic ice, it

will do so within the context of one or more normative orders. This fact reflects the need to understand how normative orders affect administrative judgement in order to understand administrative behavior.

The USCG, however, isn't just any federal agency. The Coast Guard has demonstrated its ability to successfully respond to both its institutional environment. This has been shown in its activities during Hurricane Katrina where it was one of the few actors to have effectively respond to the disaster (Brinkley, 2009). It has also included its response to 9/11 where a young Commander led the effort to organize the largest sealift since World War II (Ukman, 2011). In both these cases, the individuals within the Coast Guard have been empowered to perform their mission and use their discretion without fear of being unfairly judged if mistakes occur that were beyond their control. The result was successful agency performance where other agencies may have not fared as well in the public eye. This cultural characteristic of the service is expected to reflect itself in an investigation of how normative orders are invoked within this organization.

Context & Problem

The challenge in understanding how normative orders impact administrative judgement has, until recently, not been addressed in institutional theory at the level of analysis which this phenomenon takes place. Specifically, an understanding of normative order requires attention to both the individual and field level of analysis. Most existing theories of institutionalism are focused on images of the individual as undersocialized (acting independently of any larger context) or over socialized (disregarding individual agency) (Hall & Taylor, 1996). Other critics comment on the lack of attention that institutional theory places on the microfoundations of institutionalism which may shed light on how normative orders impact judgement (Powell & Colyvas, 2008). As a result, numerous scholars have attempted to fill this gap in understanding.

Two meta-theories have emerged which may offer insight into what is occurring in normative orders. The first of these meta-theories is the institutional logics perspective (Thornton, 2004; Thornton & Ocasio, 2008; Thornton, Ocasio & Lounsbury, 2012). This approach refers to normative orders as “institutional logics”. Logics are seen as being invoked in a generally consistent and stable manner across multiple dimensions of ordering principles. They can be said to have a high degree of fidelity. For instance, a logic may influence how legitimacy, strategy, authority, and identity are all shaped by a single normative order. While these logics are used by individuals, they exist above the level of an individual so would be shared with others and seen as intersubjective, but exists below a societal level characterizing a mid-level field (DeMaggio & Powell, 1983) or sector (Scott & Meyer, 1991).

The second approach is that of pragmatist institutionalism. This approach arises out of pragmatist philosophy through the works of several scholars (Chisholm, 1995; Berk & Galvan, 2009) but finding its fullest form perhaps in Christopher Ansell (2011). Like the logics perspective, normative orders are seen as existing at an intersubjective level. Pragmatist Institutionalism uses the idea of anchoring concepts to discuss normative orders. Anchoring concepts are key concepts shared across a field which individuals use to construct strategy, inform identify, develop a basis of legitimacy etc. but do not act in a consistent fashion the same way that institutional logics do. Rather, anchoring concepts are used more haphazardly and on a recursive contingent basis. They can be said to have a low level of fidelity.

Each of these meta-theories offers an explanation of normative orders. They diverge, however, on the manner that the normative orders are invoked. Either the normative order is consistent and stable over time or it is used more as a touch point for recursive problem solving. This is an important distinction because knowing which of these views is more accurate will help

expand understanding of this micro-dynamic of institutional life. To help advance this line of research, this dissertation with what level of fidelity are normative orders invoked?

Approach

The more operationalized meta-theory between the two meta-theories being discussed is the institutional logics perspective. The institutional logics perspective has employed numerous methods in its application. Both quantitative (Thornton, 2004) and ethnographic (McPherson & Sauder, 2013) methods are used to operationalize this framework. This dissertation will pursue a different approach by employing narrative analysis to the study of institutional logics. Narratives as a source of data on social behavior are recognized as a useful source of information on organizational behavior (Orbuch, 1997; Franzosi, 1998). It is from the public administration literature, however, that the argument for its use here is derived. Dodge, Ospina and Foldy (2005; Ospina & Dodge, 2005) make the case that public administration literature would have greater resonance with practitioners if narratives were used as sources of data. This is, after all, how public officials understand their own environment. Such insight into the practitioners' realm may also serve to enrich the scholarship in public administration. Other scholars (Feldman et al., 2004) have already taken steps to demonstrate how stories which may be otherwise dismissed as anecdotal insights may be accessed to provide a source of data in a manner that maintains research rigor. This dissertation will follow this methodological approach using interviews with USCG personnel to identify the normative orders employed in addressing the question of ice breaker capability requirements.

Significance

Understanding the fidelity with which normative orders are invoked is a single dimension in helping to develop a better understanding of how normative orders are more generally used in

practice. This knowledge helps create insights into administrative judgment as noted earlier. This in turn has the potential to provide an explanation of institutional change and emergence which relies on understanding the micro processes of institutionalism.

There is also a rather pragmatic contribution to be made by cross-fertilizing these two meta-theories. The first benefit addresses how it is that the concepts of Ansell's pragmatist institutionalism may be used to structure a study for empirical investigation. It has been noted elsewhere (Schneiberg, 2012) that Ansell's concepts do not suggest how they are meant to be employed even though they provide an interesting avenue for research. The more developed institutional logics perspective may help illustrate how this may be achieved. The second potential pragmatic contribution of this research is the application of the institutional logics perspective to public organizations. The majority of existing literature of this approach has focused its attention on private organizations. This study, by contrast, returns the focus to public agencies in the spirit of the institutional concerns first expressed by Selznick and the Columbia School (Scott, 2008) whose research concerned examinations of public bureaucracies in the 1950s and 1960s. The institutional logics perspective as well as pragmatist institutionalism may help to address some the challenges experienced in the stigmatizing debates between old and new institutionalism (Selznick, 1996) which has dampened advancing institutional theory for bureaucracies and social policy. These new perspectives in institutional theory provide a vehicle to avoid this impasse and continue research in this area for public organizations.

Chapter Outline

This chapter begins by noting that the melting Arctic ice is having a direct impact on US Coast Guard decision making. The expanding area of navigable water in that region is forcing the USCG to consider how it allocates resources to accommodate operations there which are

expected increase. Like other parts of the American Bureaucracy, however, this decision-making process exists in an institutionalized environment. Institutional environments lead to the creation of institutional forms such as rules, norms, practices, and customs in order to obtain legitimacy and support. Underlying these institutional forms is a symbolic system which explains why certain forms yield legitimacy. Such a system is termed “normative order” in this study. The literature on institutional theory has acknowledged that multiple normative orders may exist simultaneously (Reay & Hinings, 2009). Less clear, however, has been how various orders are invoked when there are multiple normative orders to select from. Recent meta-theories of institutionalism provide differing perspectives on the nature of normative orders. This chapter makes the case for why this question needs to be addressed and lays out a research agenda for achieving that end. The remaining chapters expand upon these ideas in laying out a strategy for study and presents the resulting findings.

Chapter two presents some of the existing institutional theory literature that helps establish the context of this dissertation’s approach. It was noted earlier and by numerous other scholars that multiple normative orders may exist simultaneously impacting individuals and organizations. In such contexts, it is unclear to what degree of fidelity an order may be invoked. This chapter identifies the two normative orders that make up the American tradition of public administration which are identified as instrumental and constitutive normative orders. These orders are rooted in a long debate on how the American Bureaucracy ought to behave as much as it actually behaves. The chapter then provides a review of the current literature discussing how normative orders have been addressed. The chapter places an emphasis on two meta-theories of institutionalism which propose competing visions of how normative orders may operate

originating from two different philosophical traditions. This examination provides a foundation of how to structure questions of fidelity in invoking normative orders.

Chapter three provides the methodology used in this study. The importance of Normative Orders for understanding administrative judgement will have already been argued in chapters 1 & 2. It also has been noted that two different meta-theories have emerged regarding what the nature of Normative Orders may be in practice. This chapter lays out an approach for studying normative orders which leverages narrative analysis. Stories are shown to be an underutilized source of data in public administration as recently noted by several scholars. This chapter builds on that work to present a framework that can be used to test the fidelity with which normative orders are invoked. This framework will be operationalized in the context of the USCG case in responding the demands placed on the agency by increasing navigable waters in the Arctic. Such an approach will help to create some additional insight into the actual nature of normative orders and their impact on administrative judgement.

Chapter four provides the USCG case in greater detail. The challenges facing the USCG as federal agency are complex and have evolved over a long period as both US involvement in the Arctic and the agency itself have evolved over time. In order to fully understand the decisions needed by the USCG to address these challenges, it is necessary to become familiar with this historical context. This chapter provides a quick overview of Arctic policy focusing on three periods: the pre-Cold War Period, the Cold War Period, and the current period of Arctic policy. The chapter then turns to the organizational tradeoffs faced by the USCG as it attempts to ensure it has the necessary equipment and capabilities to operate in this region. The case focuses on the availability of icebreaker capabilities as a particular need for the USCG for operating in the Arctic as a particularly clear deficit in existing capabilities.

Chapter five presents the research findings. Normative orders within federal agencies are noted to oscillate between a drive toward instrumental and constitutive views of the role of public agencies. The degree to which these views are expressed, or invoked, is not well understood. Two existing metatheories of institutionalism propose two different views on whether views would be invoked consistently in support of one or another of these views and also whether an order would be invoked in a manner that reflects internal consistency. This study uses the case of shifting agency demands placed on the USCG to test the two competing views on consistency. The chapter does this by looking at two scales of analysis. The first is looking at the individual level and the by shifting its focus to look at how recurring narratives themselves may or may not reflect consistency as well on the two dimensions noted earlier.

The sixth and final chapter revisits the initial question of how it is that normative orders impact administrative behavior. Within the context of the USCG case presented in the earlier chapters, it is noted that individuals do not demonstrate a clear preference for either of the two normative orders characterizing American bureaucracy neither do they use them in an internally consistent fashion. The findings show a similar pattern for narratives with some key differences. This suggests that normative orders are invoked with a low level of fidelity. The chapter goes onto look at what lessons may be derive for both theory and practice as it relates to administrative judgement.

Chapter 2: Deciphering the Normative Orders of American Bureaucracy

The federal agencies that make up the American Bureaucracy exist in an institutional environment. As a result, they have developed institutional forms that aim to obtain legitimacy for these organizations. Institutional theory has been able to explain this dynamic but it does not offer an explanation of what constitutes “legitimate” government behavior. This question is tied up in a history of continuing debate on what American government should do and how it ought to behave. This chapter lays out the two normative orders that have resulted from this debate within the discipline. The chapter will also present the literature on institutional theory that might help provide insights to how these two normative orders may be invoked. The presentation will conclude with two meta-theories of institutionalism which provide two potential answers to this challenge. These potential answers represent competing visions on how normative orders are used.

Competing Normative Orders Within American Bureaucracy

There has been arguably no point at which American bureaucracy has been characterized by a single normative order due to the nature of our political system. It was perhaps Dwight Waldo (1948/2007) that first made the enduring argument that American public administration is characterized by two normative orders. These normative orders came out of his attempt to reconcile the drive in public administration both toward scientific management and the obligation of public service. Subsequent scholars have continued this duality in their examination of decision making more generally (March, 1994). The first of these orders represents an instrumental view of what public agencies are supposed to do. The other normative order conceives of a different sort of role for public agencies. The second role sees

these organizations as playing a more active role in the governance process by helping to frame and inform public decision making in addition to executing those decisions. This is true across public agencies and across governmental levels. This dichotomy has been a persistent feature of public administration in this country and subject of scrutiny as political scientists considered what is required to run a constitution.

The instrumental order is that normative order that most closely reflects the ideal of the politics-administration split envisioned in Wilson's 1887 article. In that article, politics and administration are seen as related but independent tracks within government. Questions of politics are addressed by different portions of government and are meant to allow the public administrator to focus exclusively on questions of efficient administration to achieve the ends laid out for it by politics. It was a theory not meant to be descriptive but normative in its stance to how administration ought to work. While this division has been contested, it has endured within the field of public administration as a lasting perspective on how government does and should work. Elements of the perspective reflect themselves later on in the Friedrich-Finer debate (Stewart, 1985) of the 1940s. In that debate, Friedrich represents the instrumental perspective of public administration. Public administrators, according to Friedrich, are valued for their neutral competence and responsiveness to political leadership.

The politics-administration dichotomy has been contested in the field of public administration because politics cannot actually be fully separated from administration. The Friedrich-Finer debate is only one early manifestation that this dichotomy has taken in attempting to identify the role of the public administrators. While some critics argue for a general recognition that both modes of thinking are at play (Waldo, 2000), other scholars take a stance that more directly challenges the instrumental role of public administration (Wamsley et

al., 1992). Cook (1996) notes the constitutive nature of public administration as a key feature of American government and one that is not necessarily compatible with the instrumental role of public administration. Interestingly, this alternative perspective is also rooted in Woodrow Wilson drawing on the idea of public bureaucracies as government's "organ of experience" (Cook, 2010). In this perspective, ends are not defined ahead of time but discovered in the process of implementation. The public administrator has a more active role in guiding this discovery process for the stakeholders involved. This unique position is justified on the basis that it is through the public administrators that government sees and learns about the policies it wishes to implement therefore the practical experience gained from implementation puts public administrators in a unique position to influence decision making.

These two normative orders continue to characterize American public administration today but in order to understand the impact of these normative orders, it is necessary to turn to institutional theory. Institutional theory provides a means to explore the existence of multiple normative order. Original scholarship identified the presence of normative orders as an important social element in structuring social interactions. These early investigations were subsequently expanded and refined to recognize that multiple normative orders exist simultaneously and compete in a social environment. Recent research has attempt to delve into the microfoundations of these interactions to understand their impact on individual behavior.

The Contributions of Institutional Theory

A Concern with Normative Orders

This dissertation draws heavily on institutional theory. Institutional theory, however, is not necessarily a single coherent theory but may be better characterized by many traditions delving into the exploration of institutions. This dissertation is especially concerned with those

approaches that consider institutionalized organizations. The variation can be largely credited to various disciplines that delve into this domain such as sociological, economic, and political science approaches have all been shown to have taken an interest in institutions (Scott, 2008a). Scott goes on to show, however, that even within each discipline, there are numerous variations in how institutions are studied. These variations reflect differences in assumptions about human behavior or reflect a different focus on the feature of institutions. All these variations are placed into the same category of institutional theory with some disagreement on whether all the traditions may be ultimately reconcilable (Nielsen, 2001). The commonality across traditions is a focus on institutional forms with various degrees of concern with the underlying symbolic systems which give these forms meaning.

Institutional theory does not only vary among and between disciplines but it also varies over time. This variation is no necessarily the natural incremental maturation of a theory over time but is perhaps better characterized by major shifts in thinking. Original work in institutionalism was eventually challenged by “new” institutionalism. This new tradition is driven largely by the sociological disciplines with an eye toward consolidating the disparate ways that institutional theory had been pursued to distill some enduring principles (Powell & DiMaggio, 1991). Several useful concepts emerged. First, the idea of institutional fields in which institutional thinking occurred is identified. Second, the idea and explanation of isomorphism is introduced. Finally, the use and importance of symbols in institutions is emphasized. This last point is perhaps most critical here as it acknowledges that something beyond institutional forms must be considered to understand institutions which establishes the basis for thinking about normative orders. The shift is behavioral in its outlook and marks itself as distinct from what came to be known as “old institutionalism” (Scott, 1987).

Not all groups are happy with the distinction. Selznick criticizes a strong distinction noting that while the new institutionalism takes the welcome step of making cognition a more central focus in institutionalism, it establishes strong artificial dichotomies that are not useful for practice or theory (1996). The criticism is also echoed by Hirschsch & Lounsbury (1997) who compliment new institutionalism's focus on structure but criticize its ability to address change or action. Even proponents of new institutionalism (Scott, 2008b) eventually recognize this shortcoming in the theory.

Considering Multiple Normative Orders

While new institutionalism offers exciting prospects for understanding organizational behavior, scholars are ultimately faced with a particular puzzle. More than one normative order could exist simultaneously but it is unclear how multiple orders interacted. (Greenwood et. al., 2008). This is true within the public administration literature as well (Wolf, 2005). Several scholars note the apparent contradiction in focusing on one type of new institutionalism at the expense of others. Goldmann (2005) notes the problems inherent in applying either a logic of appropriateness or a logic of consequence. Entwistle (2011) uses the March & Olsen construct (1989) to attempt to demonstrate how both approaches are operative.

Two approaches are available for scholars using the new institutional frame that want to acknowledge both strains of thought. The first method is the kind of dynamic demonstrated by Entwistle and separately by Hall & Taylor (1996) in that each approach is used at different times. Indeed, this is the approach offered by March and Olsen (2008) who identify various reasons one or another perspective may be adopted. The second approach is to have one perspective subsume the other. Oliver (1991) and Suchman (1995), for instance, attempt to apply a cost to discussions of legitimacy challenges. This is even attempted by the strongest advocate of

Transaction Cost Economics (TCE), Williams (1979), in discussing the role of “probity” as a unique cost in public agencies (Williamson, 1999). These approaches attempt to reconcile the apparent dichotomy without reformulating the underlying assumptions. Scholars have eventually focused increasingly on microdynamics of institutional life as a means to untangle this apparent duality.

Emerging Metatheories of Institutionalism

An eventual shift toward microfoundations helped create new avenues of exploration. Two metatheories are especially promising in explaining how multiple normative orders may be operating.

Institutional Logics Perspective

The institutional logics perspective comes out of the work of Friedland & Alford (1991) and subsequently expanded upon by Thornton (2004), Thornton & Ocasio (2008) and Thornton, Ocasio & Lounsbury (2012). Normative orders in this tradition are embodied in the concept of “logics” which represent a set of practices and beliefs that inform individual action. These practices and beliefs serve to both constrain behavior and provide opportunity for agency. Alford & Friedland (1985) identify the three dominant logics of capitalism, state bureaucracy and political democracy as evident in western society. Given that multiple logics are present, a competition between logics refers to the dynamic by which logics become dominant in a given group.

Thornton & Ocasio (2008) see earlier theories of new institutionalism as a precursor to the institutional logics approach. March & Olsen (2008) as one example discuss a logic of consequence and a logic of appropriateness. Hall & Taylor (1996) similarly describe calculus and cultural approaches to decision making. Significant in the institutional logics perspective,

unlike earlier theory, is that these approaches are articulated in a detailed framework that allows them to become easily operationalized. This entails describing several sources of logics beyond the three outlined by Friedland & Alford as noted earlier. This perspective also introduces a new level where logics may exist below a societal level occurring at a field or sector level.

A characteristic feature of this approach is the numerous factors that characterize each logic. A source of logic, therefore, has prescriptions for several areas such as identity, legitimacy, strategy, authority, etc. which can be used by individuals to inform decision making. This approach acknowledges that multiple logics may be simultaneously active. Indeed, writers in this tradition are exploring how multiple logics can exist simultaneously as an explanation for institutional change. The point of this framework is that although multiple logics may be invoked (McPherson & Sauder, 2013), those logics will occur in a relatively consistent fashion within their own symbolic system of meaning representing a high degree of fidelity. It also suggests that the use of logics is rather stable over time not changing within a given system of meaning but competing for predominance in a field. So, while this approach allows for agency as well as structure it still perceives institutional change from the prism of inertia and path dependency. This view point also fits well with structural accounts of narrative analysis (Jones, 2010). If the Institutional Logics Perspective, however, opens the door for agency in discussions of institutionalism, Pragmatist Institutionalism throws the door wide open.

Pragmatist Institutionalism

Pragmatist institutionalism is a term applied to several scholars that are working to apply pragmatist philosophical principles to the study of institutions and public administration (Berk, 2012; Berk & Galvan, 2009; Chisholm, 1995). Among the foremost of these things is Christopher Ansell (2011) who is interested in how an effective bureaucracy can also be

responsive to democratic principles. He recognizes the conceptual problem posed by a view of public agencies as waiting to neutrally execute the public will as defined by elected officials. There is a process of interpretation which occurs but we also expect these organizations to act in an instrumental fashion. These scholars turn to pragmatism specifically because of its anti-dualist world view. This world view is characterized by a philosophical bent that is experiential, reflexive and grounded in the contingency of knowledge. This approach is also heavily reliant on the perspective of problem solving as a way to organize otherwise contingent perspectives of knowledge. The result is a process termed “creative syncretism” in which institutions, “‘veer off,’ jump tracks,’ or ‘break down,’ not because of outside forces, or because change is functionally necessary, or because elites choose it, but because there are people living in and through institutional structures” (Berk & Galvan, p.545, 2009). Institutions, in other words, are the product of a active participation of individuals who deliberate and change institutions as they enact them.

This approach to normative orders relies on the idea of yoking to challenge the idea of duality. This is done by placing opposing concepts along a continuum so rather than an either-or situation one experiences a spectrum of experiences between to abstract poles emphasizing the continuity of phenomenon. Another way that yoking works is by using a third element to mediate the relationship between the opposing concepts. But the most important for pragmatist institutionalism is the tight couple of meaning and action that is characteristic of symbolic interactionism. This last point means that as knowledge is developed it depends on a constant recursive process of experience and reflection that shapes understanding as the problem-solving process progresses. In this tradition, a normative order is termed an anchoring concept which is used to organize thinking in this contingent environment.

The eventual result of all of this is that pragmatist institutionalism offers a way to diminish the duality of the two normative orders characterizing American public administration. Like the institutional logics perspective, this approach is also notably multi-level in its analysis. It moves between the individual to the group level to show how individual behavior may impact broader structures that are in place and back again. Another similarity with the institutional logics perspective is the concern with the way that structure changes over time. The notable departure of this approach from the institutional logics perspective is its view of how normative orders are invoked. Rather than stable consistently invoked “logics”, pragmatist institutionalism’s focus on “anchoring concepts” reflects the concern with contingent knowledge. Anchoring concepts are seen as a raw material that can be combined and recombined to establish new understandings and strategies. So, while the Institutional Logics Perspective may see institutional change as a struggle between two competing normative orders, Pragmatist Institutionalism sees this as a process of re-interpretation of active normative orders in the given context. Such an approach lends itself to more interpretive narrative analysis methods (Roe, 1994).

The difference in normative orders between these two approaches has implications for the manner in which stories are understood. The assumed high degree of fidelity with which institutional logics are invoked allows them to be quantified and aggregated easily. This clear separation between normative orders is seen as difficult at best if not impossible from the perspective of Pragmatist Institutionalism. It would be more accurate to say that a story tends in one direction or another with respect to anchoring concepts. More significantly, Pragmatist Institutionalism would say that such a focus would miss the point of anchoring concepts if they were treated in this manner. Anchoring concepts reveal how normative orders are combined and

recombined in various contexts to produce new meanings and interpretations of a situation. The implications of these differences will be expanded upon in the next chapter as methodology is considered more carefully.

Conclusion

American bureaucracy has had a long tradition of expressing two normative orders that are active in the practice of governance. While institutional theory is instrumental in advancing our understanding of normative orders, it has not been until recently that we have been able to gain a deeper understanding of how these normative orders impact decision making at the individual level. Two meta-theories have emerged to address just this issue with each theory taking a different perspective on the degree of fidelity with which these normative orders are invoked. The Institutional Logics perspective views a stable and ordered set of logics while the Pragmatist Institutionalism approach views a normative order as a more contingent experimental set of tools that can be used to explore options.

The remainder of this dissertation applies these concepts to examine the specific case of USCG decision point affecting the USCG due to Arctic Ice melt to help identify which tradition may be more useful in describing the actual consistency of the use of normative orders.

Chapter 3: Methodology for Testing the Fidelity to Normative Orders

This study is interested in the understanding the symbolic systems, termed normative orders here, which underlie institutional forms. A normative order, however, is difficult to work with as it relies on symbols to point toward meaning that are associated with such symbols. These symbols, furthermore, are shared at an intersubjective level. Narrative analysis offers an approach to discuss and work with these systems. This chapter begins by situating the dissertation method in the wider literature dealing with narrative analysis. The chapter then presents the pertinent information regarding how interviews were scoped and executed. The final portion of this chapter commits attention to explaining the analytical and interpretive approaches used in this dissertation.

Collecting Normative Orders

Stories as a Source of Data

An explanation of how managers think about their actions relies on the stories they tell about those actions and the stories they tell about their environment. These stories represent rationalizations of their decision making process whether they are understood a priori or post hoc (Simon, 1992; Orbuch, 1997). Such stories have been noted as an overlooked source of research material but provide a vehicle for accessing symbolic systems (Ospina & Dodge, 2008; Feldman et. al., 2004). This study proposes to use stories for its approach and adopts methods from narrative analysis to examine how normative orders are invoked.

The narrative method will closely follow the process offered by Feldman et al. (2004) in their “rhetorical approach” to narrative analysis which draws on semiotics. In this process, interviews are turned into transcripts. Transcripts are then used to identify discreet stories.

These stories are subsequently reformulated into formats suitable for coding. This formatting is achieved by reviewing the story to identify the main story line and the main opposition. These two elements become propositions used to generate a deductive reasoning statement termed a syllogism, for example: any attempt to decrease costs reflects the desire to operate well (proposition one), we attempt to decrease costs (proposition two), therefore we have the desire to operate well. It is not so important for this process that each proposition be true so long as it reflects the proposition explicitly or implicitly offered in the story. Of greater importance is that this structure helps provide a method to state the reasoning being offered in the story. How these resulting syllogisms were used will be elaborated further in this chapter when discussing the analytical framework.

Anatomy of a Narrative

Narrative analysis has done much to demonstrate that the stories people use have consistent repeatable patterns. So, while it is a question if normative orders are invoked with a high degree of fidelity, it is more certain that the structure of stories and narratives themselves are consistent. Certain elements have been noted to characterize stories such as some form of sequencing of time, focal actor or actors, an identifiable narrative voice, an evaluative frame of reference, and some form of contextual indicators (Pentland, 1999). Focusing on different elements of a story helps to answer different types of questions. Focusing on sequence, for instance, may provide insights to process of events while focusing on characters may help provide explanations of roles and the interdependence of those roles. Of these various elements, it is the evaluative criteria that is of the most interest to the issue of normative orders.

Evaluative criteria suggest an underlying moral lesson that the stories is intended to impart which helps indicate where the speaker places value. Evaluative criteria can also help to

identify unstated assumptions of the speakers which also impact value judgments. This window into value judgements helps to show if the speaker is employing a set of values reflected in either of the normative orders which characterize American public bureaucracies.

Narratives, beyond the stories already noted above, share a structure sympathetic to exploring normative orders. Pentland also distinguishes levels of a narrative beginning with the text itself moving to a “deep structure”. The text itself reflects the material provided by the subject. The next level is the story which is a specific instance of a broader narrative. The next level is the “fabula” which is the more generalized version of a story. It is here that Pentland suggests that narrative analysis begins. This research refers to this level as the “narrative”. At the deepest level is the “generative mechanism” that the fabula points to which is the normative basis for the narrative. This is the level of analysis that this research refers to as the normative order. Before continuing on to present the framework used for this study, the next section will elaborate the approach used to collect stories for this studies.

Interviews

Population

While multiple agencies previously had icebreakers as part of their fleet, a series of consolidations begun in the 1980s created a single shared icebreaker fleet shared by the US Navy and US Coast Guard. This single fleet eventually came to be managed by the USCG alone. The decision on how to address the possible capabilities gap required to operate in the arctic is shaped by a number of actors within and outside the USCG. This research project focuses on headquarters elements associated with the decision. While organizational elements closer to the field activity of District 12 may have significant equities in the topic and potential knowledge of the subject matter, this portion of the organization is expected to be less exposed to the symbolic

demands placed on the organization than they would be at the HQ level. The study acknowledges that multiple external actors may also serve to shape this decision process such as Congress, DHS and lobby groups. The study is concerned with how the organization makes sense of its environment rather than with providing a comprehensive picture of that environment from a third person perspective. Within the HQ of the USCG there are four offices with impact in framing the acquisition and operational consideration of Coast Guard activity. The first office is that of the planning, Resources and Procurement office. The remaining three offices all fall within the Coast Guard's Operations section and include: Operations Capability Directorate, Operations Policy Directorate, and the Operations Management Directorate.

As already noted, the study is concerned with how the organization works to shape and define this decision. While the significance of flag officer impact should not be under-stated, the focus is being placed on senior rather than executive level Coast Guard Personnel. This is the staff level working with actors to shape the message that will eventually become part of the USCG's strategic planning, acquisition, and policy documents. These individuals act as office directors or analysts in the various offices identified earlier. This level of seniority roughly translates to Coast Guard Officers at the rank of Lt. Cdr (O4) to Captain (O6). This population also includes civilians in these offices equating to GS13 to GS15 levels. Intentionally excluded from this pool are contractors whose contributions to the Coast Guard Mission should not be underestimated but whose work is necessarily non-governmental in scope. This is expected to result in less attention to symbolic aspects of this decision making process. Similar reasoning was used to also exclude retired Coast Guard Personnel.

The population identified for this study were approached for interviews through a referral process. My current existing relationship with Coast Guard officers suggests that this

community is small enough so that most officers have familiarity with each other. It is also apparent that there is an interest in this community in further exploring ways to understand how the icebreaker challenge may be approached. This network was used to secure introduction to potential candidates based on referrals obtained during interviews conducted for the study.

Referrals were sought for individuals dealing with policy, acquisition, or planning impacts on the icebreaker decision. The referrals focused on those at the HQ level of the USCG and those individuals at mid/senior manager levels as identified earlier. Interviewees were offered assurance of anonymity in their interview. It is also important to note that the questions are seeking to discuss the individual's perspective on the topic rather than a formal Coast Guard position on the issue. Interviews and referrals continued until it was determined that most of the target population had been reached.

Structure

The interview process entailed open ended questions to interviewees that encouraged reflection on the challenge posed by melting Arctic ice to USCG acquisition priorities. The open ended nature of the questions will encouraged freedom to the interviewees in framing how the individual would think about this particular problem set. The interview was composed of six questions with a few follow-up questions (see appendix A). These questions were structured to organize the potential challenge posed by melting arctic ice into the various stages of problem solving identified by Dewey (Chisholm, 1995). Most significantly, this approach views the problem as more complex than identifying which alternative is "best" to include how the problem may be identified and how alternatives are sought. The interviews lasted for approximately one hour in length and were recorded for later transcription and analysis.

Making Sense of Stories

Data Analysis Framework

The concept of fidelity is introduced here to distinguish between the two approaches to normative orders being considered in this dissertation. A high degree of fidelity refers to a closer adherence to a single normative order. This would mean that while multiple normative orders may be used, a clear preference would be evident for one or the other normative order. High fidelity would also anticipate that if a normative order was used to explain one aspect of a story (source of legitimacy, for example) then it would also be used to explain other aspects (basis of strategy). High fidelity would be most closely related to the institutional logics perspective. Low fidelity would anticipate the opposite. Low fidelity would anticipate no clear preference toward a normative order but also that a single normative order would not be applied uniformly to address multiple aspects of a story.

Institutional Logics Perspective = High Fidelity = Clear Preference & Uniform Application

Pragmatist Institutionalism = Low Fidelity = No Clear Preference & Inconsistent Application

The concept of fidelity is used to generate two sets of hypothesis that compare whether institutional logics or pragmatist institutionalism provides a more accurate description of how normative orders are used in organizations by using empirical data. The first set of hypothesis apply the question of fidelity at the individual level. The intent is to test if people invoking normative orders demonstrate a higher or lower degree of fidelity. The second set of hypothesis focuses on narratives. As noted earlier by Pentland, narrative (which he terms fabula) represents a more generalized version of a story that is shared intersubjectively. The second set of hypothesis asks if these intersubjective tools demonstrate a higher or lower degree of fidelity.

Table 1 - 2x2 of Organization of Hypotheses

	Individual	Narrative
Clear Preference	H1.1	H2.1

Uniform Application	H1.2	H2.2
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Looking at how individuals use normative orders suggests two different results based on the extant literature of the institutional logics perspective and that of pragmatist institutionalism. The Institutional Logics Perspective assumes a more consistent use of normative orders. This would suggest that individuals would demonstrate a preference for one or another of the normative orders (instrumental or constitutive) as they go through the process of decision making. Uniform application of a single normative order would also be used so that a given story would use the same normative order to describe both strategy and legitimacy in the stories offered. This provides the first set of hypothesis

H1.1 – Individuals will demonstrate a clear preference (albeit not an exclusive preference) for a single normative order.

H1.2 – Individuals will invoke the same normative order in a single story for describing both strategy and legitimacy.

The second set of hypothesis are based on narratives. A “narrative” was identified through several steps. First, using an interpretivist approach, the stories collected were reviewed and lumped together to reflect recurring stories that emerged during the interviews. This process was used to identify common narratives that emerged during the interviews. Each story was then coded to which narrative it supported. Sometimes the story supported more than one narrative or did not support an overall narrative at all. In most cases, however, the story supported one narrative. Finally, those narratives that were reflected in at least eight of the nine interviewees’ stories were used for the analysis.

While narratives themselves do not “invoke” any normative order, the structure of a narrative may be stable enough to test. The structure of a narrative may demonstrate a

preference for one or another of the normative orders. The structure of a narrative may also show a tendency toward uniform application.

H2.1 – Narratives will demonstrate a preference (albeit not an exclusive preference) for a single normative order.

H2.2 – Narratives will use the same normative order in a single story for describing both strategy and legitimacy.

Data Coding & Interpretive Process

Interview transcripts were then reviewed for discreet stories. Stories were seen as responses that provided an explanation of some phenomenon that entailed an explicit or implied moral. While all the elements of a story as noted by Pentland earlier did not need to be present, an evaluative criteria was necessary to qualify as a story. This process generally followed Feldman et al.'s (2004) approach to coding narratives noted earlier. As an example, here is one story that was identified:

And really what comes to mind is that we're really a victim of our own success in that we continuously do more with less. Unfortunately, until there's a tragedy that happens in that area, or we just learn to say we can't do it, we probably won't get the additional funding or the resource to the level where we should be doing it right. That's just by nature, I think it's a very difficult situation as a leader to say, we just can't do it. And our service has had a lifeline of saying we will continue to do it, we will always go there. One of our mottos back in the day is we'll go out, we have to go out, but we don't have to come back. So it's just that we have continuously done more with less, with whatever threat or emergency that has arisen. Interview 005 – Story #10

The point of this story is that the Coast Guard frequently does more with less until there is a tragedy. The speaker tells this story by focusing on the cultural characteristics of the USCG by sharing one of the early mottos of the organization to illustrate this point. The opposition in this story is the need to get the job done on the one hand and the availability of needed resources to get the job done on the other hand. The resulting syllogism reads:

The Coast Gard has always done more with less. Change only occurs when there is catastrophic failure. The USCG will do more with less until there is a catastrophic failure.

This process was applied to each of the transcripts that were generated from the interviews. Each transcript resulted in approximately 30 stories each with an associated syllogism. These stories were then coded to determine: 1) how a “good” strategy was portrayed, 2) and how the legitimacy of certain types of actions were justified.

For each of these elements (Strategy and Legitimacy) the story was coded to indicate if it demonstrated concern primarily with an instrumental normative order or constitutive normative order. The case used pattern matching against an “ideal” of a given normative order to determine what may be occurring (Thornton & Occasio, 2008; Yin, 2009). Table 1.0 contains these characteristics of these “ideal types” that were used to determine if a story reflected a certain type of normative order.

Table 2 - Legitimacy and Strategy for Each Normative Order

	Instrumental N.O.	Constitutive N.O.
Sources of Legitimacy	Neutral Competence	Practical Experience
Basis of Strategy	Achieves End Efficiently	Helps Define Ends

Continuing with the story already identified, it was noted that the strategy here is depicted as the ability to most efficiently reduce risk within the bounds that exist for the organization. Since the source of legitimacy for the USCG as a public bureaucracy is its neutral competence, it will continue to do this to the best of its ability within its given bounds rather than leveraging its knowledge of effective operations to petition congress to rebalance budget allocations. In this story, the characterization of instrumental strategy and legitimacy is taken to such an extreme extent as to depict the continued functioning of the USCG in this fashion even to the degree that it results in loss of life or other catastrophic incident at which time political leadership (not the USCG) may consider a change to its position. This resulted in the following coding for this story:

Table 3 - Example of Story with Instrumental Legitimacy and Instrumental Strategy (Interview 005 - Story #10)

	Instrumental N.O	Constitutive N.O.
Sources of Legitimacy	Neutral Competence	Practical Experience
Basis of Strategy	Achieves End Efficiently	Helps Define Ends

Additional examples may help to illustrate the differences in how different types of stories were ultimately coded. The below is a story reflecting a constitutive legitimacy and constitutive strategy.

Knowing that this is a new ocean forming before our eyes, there are routes that you can take that have to be kept ice clear for ships to take, and ninety percent of U.S. commerce travels by sea, do we want to sort or hedge our bets that Russia ... do we trust Russia with icebreaking capability in the Arctic, or should we have our own? I think that is a decision point for this country. Is it enough to lease an icebreaker, or ask Russia to do it for us, or is there a sovereign, national security interest to have our own? I think it's the biggest question we have to ask ourselves. That is the decision point. I don't know that anybody's teeing it up either, but, in my opinion in this job, that's the biggest thing that we have to ask ourselves. Interview 003 – Story #20

We can use partner nation capabilities if we trust them. It is bad for national security to rely on trust. It is bad for national security to rely on partner nation capabilities.

In this story, the speaker turns his attention to the question of whether the United States can turn to international partners to assist in providing needed icebreaker capabilities in the Arctic ocean. He identifies the question of whether Russia or any other international should be trusted with US icebreaking as something that needs to be discussed and addressed by the larger public. His role in this dialogue it to point to this issue to help urge along a process that will define the public good for this question reflecting a constitutive basis for strategy. The speaker identifies this need based on past experiences interacting with international partners in the maritime domain which is founded in practical experience.

Table 4 - Example of Story with Constitutive Legitimacy and Constitutive Strategy (Interview 003 - Story #20)

	Instrumental N.O.	Constitutive N.O.,
Sources of Legitimacy	Neutral Competence	Practical Experience

Basis of Strategy	Achieves End Efficiently	Helps Define Ends
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The following story reflects a constitutive legitimacy and instrumental strategy.

When we look at what resources we're willing to put in the North Slope, we have to balance that with what resources we're willing to not have in other parts of the country. Whereas operations might increase, we have to take a hard look at how much and what impact a negative, some sort of event off the North Slope is going to have compared to an event off of the Florida Keys or the West Coast or the North East. At the end of the day, District 17 is responsible for identifying the priorities and the needs and the requirements within their AOR, but the commandant in the Flag Corps, and the leadership as a whole, is responsible for identifying and prioritizing the needs and the requirements and managing the risk across the entire area of responsibility for the Coast Guard. Interview 007 – Story #29

The district identifies local priorities. National priorities are made at HQ across districts. The district has limited control on priorities across districts.

This excerpt shows the speaker reasoning through how resources are prioritized at the USCG.

Specifically, the speaker is contemplating how resources for the Arctic (District 17) are managed with other regions facing different challenges. An effective strategy in this story is one in which all resources are used most efficiently reflecting an instrumental concern for strategy. The speaker, then takes a different tact in approaching the question on what basis such a decision should be made. The legitimacy of such a decision is not vested in a cost-benefit analysis or other mechanism of neutral competence but in the practical experience obtain by senior leadership concerning operational requirements in adjudicating how resources are ultimately spent.

Table 5 - Example of Story with Constitutive Legitimacy and Instrumental Strategy (Interview 007 - Story #29)

	Instrumental N.O.	Constitutive N.O.
Sources of Legitimacy	Neutral Competence	Practical Experience
Basis of Strategy	Achieves End Efficiently	Helps Define Ends

This final example presents a story that demonstrates an instrumental legitimacy and constitutive strategy.

Yeah. Who is it local for? The Coast Guard tried to get a lot of press out in the last... this past summer, where we escorted a Russian tanker into this little island over a thousand people to get them oil, or they're going to run out of oil because they're barge broke down, they're going to run out of it. I don't know how you convince 310 million people in America that I [USCG] need a billion dollar ice breaker to get these people and town their oil. I would tell you the pessimist in me would say, the 310 million Americans would mail then the money to buy luggage and go someone else. They need to have a \$2,000,000,000 ship to move oil to them. I just don't think we'd win that argument with the American public right now. I don't know how you do that and the budget declining. Interview 002 – Story #14

The Arctic is viewed as a local issue. Local issues do not have the ability to sway the broader American public. The Arctic does not have the ability to sway the broader American public.

This story uses the example of a little town in Alaska that ran out of heating oil one winter. The USCG used an icebreaker to escort a Russian tanker to the island where the town was located to deliver needed oil to prevent the loss of life. The story suggests that a winding strategy would be based on a cost-benefit analysis when he compares the cost of an icebreaker with what the American people would pay to have those people move. That isn't really the point about strategy the speaker is trying to make. The speaker notes that the USCG tried to get press attention on this topic. The need was for the purposes of getting the American public to discuss what it sees as acceptable in the Arctic. The idea of having a town move because the rest of the country is not offered as a serious option but to illustrate the need for this dialogue. The speaker then does not go onto point to the USCG unique practical expertise to make this decision. Rather the opposite, he notes the USCG role legitimate role as one of neutral competence in being ready to execute the public will once it is identified.

Table 6 - Example of Story with Instrumental Legitimacy and Constitutive Strategy (Interview 002 - Story #14)

	Instrumental N.O.	Constitutive N.O.
Sources of Legitimacy	Neutral Competence	Practical Experience

Basis of Strategy	Achieves End Efficiently	Helps Define Ends
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Each story identified contained at least one potential opposition if not more. In those situations, where multiple oppositions may have existed, the most apparent one was selected for further coding leading up to analysis.

Analyzing Results

Analysis of the coded information unfolded in two stages. In the first stage, the aim is to prove or disprove the hypothesis posed using a simple frequency count. To achieve this end, the data for each individual is organized into a set of three charts. The first chart provides a percentage of how often either a constitutive or instrumental normative order is used in describing either a strategy or legitimacy in a story. The second chart is similar to the first chart but offers greater detail by distinguishing how often each narrative was used to describe either strategy or legitimacy for each individual. These two charts together provide a check on preference as an aspect of fidelity. The third chart reflects the percentage of the time that either the same normative order is used in a single story to describe both strategy and legitimacy or where a different normative order is used for each in the same story. This chart is used to test for uniform application in the use of a normative order.

A Chi Square test is used to determine how well the frequency that a normative order occurs or sets of normative orders occurring together meets the expected outcome. In this case, that outcome is that the responses are not random which is measured here as a frequency occurring more than 50% of the time. The expectation in the first two charts is that there is a clear preference expressed by individuals for either an instrumental or constitutive normative order. The expectation for the third chart is that there is a notable preference for using the same normative order to describe both strategy and legitimacy.

The same set of charts as noted above are developed for narratives. Narratives for this case were not identified ahead of time. As stories were coded, themes were being noted and tagged to stories. In some instances, multiple themes would be tagged to the same story. These themes pointed to a broader narrative that was being drawn on by the multiple respondents to construct these stories. These narratives were then used to subsequently generate a similar set of charts as were developed for individuals as noted above with the same targeted outcomes. The charts developed to test stories of individuals and those of narratives are also compared at this stage to identify similarities or differences in patterns. This comparison helps develop questions for further analysis.

The second stage of the analysis goes further. While the first stage of the analysis tests the stated hypothesis, the second stage aims to provide an explanation of what is observed. The analysis returns to the text themselves to draw on specific stories that help to illustrate the patterns observed. This part of the analysis asks: 1) what does high or low fidelity look like in these examples, and 2) can a common explanation for high or low fidelity be derived from looking across these examples? This re-appraisal and closer look at the stories is done within the larger context of the stories.

Conclusion

The approach presented here attempts to address the challenge of executing analysis on normative orders. Normative orders are essentially symbolic systems which cannot be directly observed. The use of narrative analysis, however, demonstrates the ability to leverage stories as a serious source of data for such studies. Such approaches are labor intensive but offer access to a source of information that is otherwise inaccessible. The next chapter presents the USCG case

in detail before chapter five provides the results of applying this approach to the interviews conducted.

Chapter 4: Presenting the Case of USCG Arctic Challenge

Preceding chapters have noted that the challenge posed by melting Arctic ice to the USCG is both a technical issue but also an issue that will be understood within the lens of normative orders. Those normative orders are derived from foundational concepts of the role of public bureaucracies in American government. This chapter provides the detail necessary to understand the challenge of melting Arctic ice in its proper context so that the findings presented in chapter five will have some grounding in what the wider discussions have entailed. The case presents the historical context of American policy toward the Arctic through the present. The case then shifts to discuss what melting Arctic ice means for the USCG in terms of needed training and equipment to operate in this region.

Timeline of Arctic Policy

A discussion of the decisions facing the USCG with respect to changes in the Arctic is best understood within context. This section of the paper relays the historical context that worked to shape the current Arctic discussion. Some of the earliest concerns regarding the Arctic have continued from earlier eras. The paper presents a timeline of the Arctic in three broad sections considering both domestic and international concerns. The first period that is presented covers the pre-Cold War era starting in the 15th Century through 1947. The second time period addresses the Arctic concerns during the Cold War period (1947-1991). The final section covers Arctic policy following the Cold War period to the present.

The structure of this timeline highlights the importance of the Cold War in shaping thinking before, during and after that period. One major theme that disappears after 1947 and reemerges after 1991 is the economic possibilities that transit through the region provides. This focus was subsumed during the Cold War focusing instead on the strategic importance for

defense during this period. A major theme running through all three periods is the concern with environmental management of this area.

Early Arctic Policy

Interest in the Arctic has been limited in history due to its difficult physical conditions. Early Arctic policy is characterized by a general indifference toward the Arctic for the greater portion of human history. It was not until the middle of the Renaissance that the Arctic gained greater interest by a broader audience. While explicit “policy” was not established in this period, this early exploration generated themes at the international and domestic levels that continue to resonate today.

The 1400s saw the initial stages of what would lead to approximately 300 years of persistent Arctic exploration. During this period, cartographers popularized the notion that a passage linking Europe to Asia was possible by sailing through the Arctic Ocean along the coast of North America (Williams, 2010). This concept captured the imagination of numerous Europeans initiating several expeditions in search of such a passage. The presence of ice even in the summer months greatly complicated the ability to map this region much less discover a Northwest Passage. In some instances, such expeditions ended in tragedy. One of the more famous early Arctic explorations going awry was the Franklin Expedition in 1845. A retelling of that story based on Inuit accounts was published in 1992 (Woodman). The persistence of exploration in the Arctic did not subside until the 20th Century and the World Wars.

Domestically, the early period relating to the Arctic was most importantly affected with Alaska. This period saw the area that would eventually become the State of Alaska undergo numerous stages of its evolution toward incorporation into the United States. Following the acquisition of Russian-America in 1733, the new acquisition adopted numerous forms of

governance resulting in its status as a territory in 1912 (Borneman, 2004; Haycox, 2006). These shifts in status were largely in reaction to the desire for the Alaska region to gain greater representation in Congress in order to affect laws impacting residents. The acquisition made the US an Arctic nation. This new reality necessitated patrols and exploration of the Arctic Ocean by the United States.

This new mission area was led by the US Revenue Cutter Service (USRC) established in 1790 by Secretary of Treasury Alexander Hamilton. The aim of this organization was to protect trade on the seas. Two of the first “icebreakers” in this fleet were the USRC Corwin and USRC Bear which undertook Arctic voyages in the early 1900s as well as patrol of the Bering Sea. This organization would eventually be combined with other maritime agencies to form the USCG in 1915 under Woodrow Wilson’s administration (USCG Historian’s Office, 2012).

Cold War Era

The Cold War era, beginning in 1947 and running through 1991, saw an increased concern with the Arctic. This focus stemmed primarily from security regarding the USSR. This period also saw the flowering of considerations of how to govern this remote region. Governance discussions included viewing the Arctic as a place deserving of environmental protection and research.

The previous promises that the Arctic offered as a transit route in the early era was largely replaced by security worries. The main use of the Arctic for most nations during the period was its utility for military transport and deterrence (Borgerson, 2008). Aircraft over flights and submarines traversed this region shared by the US and the Soviet Union as a broader balancing of powers. This region was also seen as important in securing Ballistic Missile Defense (BMD) systems to repel attacks as part of deterrence strategies (Conley, 2012). While

the Arctic as a security issue was forefront in many minds, initial steps toward governance were also being formulated.

A dialogue that had unlikely ramifications for Arctic policy was the Antarctic Treaty System established in 1951. This system framed the Antarctic as a preserved space for scientific exploration that would be military free. This may have been a strategy to avoid military build-up on both sides in yet another region of the world. This treaty system is sometimes referenced with respect to the Arctic as a model for a possible governance solution (Conley, 2012). While the Arctic Treaty System was seen as an adequate vehicle for addressing the landmass of Antarctica, international sentiment was that the Arctic being primarily a body of water, would be better governed by international norms and conventions as other oceans were. This framed future discussions of the Arctic as primarily the purview of international maritime law.

One of the most frequently cited international convention for regulating the use and adjudication of disputes in the Arctic is the United Nations Convention and the Law of the Sea (UNCLOS) signed in 1982 (Borgerson, 2008). This convention established protocol for territorial claims made to waters contiguous to a nation. The convention also includes standards for extending these claims and adjudicating some forms of disputes. UNCLOS has recently set off a race to map the existing ocean floor to gain exclusive economic rights to a greater region of the Arctic according to these standards. This is perhaps most apparent in the race between Canada, Denmark and Russia to claim the Lomonosov ridge which is believed to have substantial mineral reserves (Conley, 2012). It is important to note here that all arctic nations except for the United States have ratified this convention. The implications and reasoning behind this decision will be addressed in the subsequent sections of this paper.

The status of the United States as an Arctic nation was cemented in 1959 with the incorporation of Alaska as a US state (Haycox, 2006). This period also saw several developments related to the Arctic occur in both organizational and policy arenas. Up until 1965, both the US Navy and USCG maintained separate icebreaker fleets. A memorandum of agreement between the two agencies was signed that year agreeing to the creation of single national icebreaker fleet. This partnership was deepened in 1982 through a study conducted on roles and mission which placed responsibility of the single fleet under USCG management (GAO, 2010a). While this fleet included many vessels at the time, it is useful to note that the last two US heavy icebreakers (USCGC Sea & USCGC Star) were commissioned during this period in 1977 (DHS OIG, 2011).

There were two notable policies related to the Arctic domestically during this time. First, National Security Decision Memorandum (US Arctic Policy & Policy Group) 144 was signed in 1971 by Henry Kissinger. This is perhaps one of the earliest American policies specifically concerned with the Arctic region. The document establishes three major priorities for the Arctic to include: 1) minimize adverse risks to the environment, 2) promote international cooperation in the Arctic, and 3) provide for the protection of security interests in the region. Second, the Arctic Research and Policy Act was passed in 1984. This policy established the importance of research investment in this region. More substantially for this paper, however, this act explicitly states the criticality of maintaining a national icebreaker fleet for security, economic, and environmental interests. In aggregate, this period saw the Arctic from a promise of economic benefit to a setting for security challenges.

Current Period of Arctic Policy

The last period being considered in this paper begins with the end of the Cold War in 1991. The melting of Arctic ice had the singularly greatest impact on Arctic Policy during this period other than the end of the Cold War. While the Northwest Passage was successfully traversed in 1969, the route remained cost ineffective for normal use (Borgerson, 2008). The melting of the Arctic ice is making this ocean easily navigable resurrecting the economic promise envisioned in earlier periods. In 2008, the Northwest Passage (Amudsend Passage) was ice-free during the summer months. In 2009, a private German entity established the Northeast Passage as a viable shipping route (Conley & Kraut, 2010). The resulting human activity in this region led to a reassessment of economic, environmental, and security concerns of bordering countries and other countries further afield. While security concerns remained, their character shifted. Rather than viewing the Arctic as a setting where nations extend military power in support of political concerns, the economic benefits of the Arctic themselves became the new focus of security concerns.

The 1990s saw the international community recognize the need for a governance structure for the Arctic. Environmental degradation in the region provided common cause for collaboration between nations resulting in the Arctic Environmental Protection Strategy in 1991. The collaborators of this strategy would formalize relations in 1996 as the Arctic Council (Arctic Council, 2012). The Arctic Council is composed of the five Arctic Sea bordering countries which include Canada, United States, Russia, Denmark (via Greenland) and Norway as well as the additional arctic countries of Sweden, Finland and Iceland. Arctic countries are defined here as countries which have some portion of their territory located in the Arctic Circle. The council continues to be the only widely recognized governance body for the Arctic. The Arctic Council

views UNCLOS as a necessary component in working to adjudicate disputes in the region. While this entity is limited in its ability to address security concerns, there have been some notable actions taken by the council to secure the region. One of the more notable agreements in this direction was the 2011 agreement for cooperation on search and rescue operations between Arctic Council nations (State Department, 2011).

Despite the general accord established by the Arctic Council, the Arctic Five (the five nations bordering the Arctic Sea: US, Canada, Russia, Denmark via Greenland, and Norway) have also asserted their own separate claims to the Arctic Ocean in the 2008 Illulisat Declaration. The declaration originates from concerns over the unique concerns and sovereignty rights of these nations as Arctic Ocean bordering nations. The position of this body is that no new legal framework is necessary for Arctic governance but should rely on the stewardship of the Arctic Five within existing international norms. As a result, this group also endorses the use of UNCLOS as part of Arctic governance.

Despite the evidence toward greater cooperation between nations related to the Arctic, the absence of an overarching legal framework maintains concerns related to national sovereignty. This concern has led to the visible build-up of Arctic capable assets, to include military assets, in all the Arctic Five nations except for the United States (Conley, 2012). This disparity may be related to the degree that the US considers itself an Arctic nation compared to the other nations composing the Arctic Five. Despite the lack of evident buildup in assets, the US has continued to mature its Arctic policies while the USCG itself has undergone significant transformations.

The USCG was placed under the newly formed Department of Homeland Security in 2002. This move increased all mission sets within the agency (USCG, 2009). The commitment of USCG management of the Nation's icebreaker fleet continued through this period and was

reinforced by a new memorandum of agreement between DHS and DoD in 2008. The USCG successfully brought online the medium icebreaker USCGC Healy in 1999. This was shortly followed, however, by the two remaining heavy icebreakers in the nation's fleet, USCGC Star and USCGC Sea, becoming inoperable in 2006 and 2010 respectively. This left the US with one icebreaker compared to 18 in Russia, 9 in Finland, 6 in Canada, 5 in Sweden as of 2011 (DHS OIG, 2011). Management of ice operations was further complicated by the loss of budget authority from the USCG to the National Science Foundation from 2006-2009 (O'Rourke, 2012a).

Domestic policy during this period showed greater promise. The most decisive domestic policy concerning the Arctic occurred recently in the 2009 National Security Presidential Directive 66 (also listed as Homeland Security Presidential Directive 25), "Arctic Region Policy". While still a less developed policy statement than other Arctic nations, this document lays out the current policy of the United States. There are two notable changes in policy from the Cold War period. First, while NSDM 144 called for international cooperation in the Arctic, the new presidential directive explicitly highlights the need for international institutions and not just cooperation. Second, the new presidential directive expands on the previous themes of cooperation, security and environment by including economic development among its policy aims. This document also includes seven priorities for eleven federal entities regarding the Arctic. The USCG may be assumed to provide support to many of the seven priorities but DHS is explicitly identified for responsibilities concerning three priorities: 1) national security & homeland security interests in the Arctic, 2) maritime transportation in the Arctic, and 3) environmental protection and conservation of natural resources.

Elements of USCG Case

Arctic Impact to the USCG

In a presentation held at CSIS (Salerno, 2012), Vice Admiral Brian M. Salerno (Deputy Commandant for Operations, USCG) identified some of the difficulty in operating in the Arctic. First, Salerno noted that there is no port which can accommodate an icebreaker vessel in the region needed to for operations in the Arctic. Steaming time, as a result, it a great hindrance to flexibility of deployment, regularity of maintenance and duration of operations using these vessels. Second, cost of facility construction is estimated to be four times that found outside of the region for the same infrastructure due to the harsh physical environment. This challenge is further compounded by the fact that little infrastructure currently exists necessitating additional construction for support to the required assets. Third, the notion of the Arctic as being “ice free” is a misnomer. At best, the Arctic is a navigable waterway during summer months but the threat of floating ice remains even then. The resulting picture of Arctic operations, depicted by Salerno, is one of specialized equipment able to operate remotely from its base of operations. Finally, little chartering has been done on Arctic waters. This lack of information heightens the dangers of vessels operating in the region.

A number of capabilities are identified as requirements for effective operation in the arctic (GAO, 2010a). These assets can be grouped into two categories. The first category includes those assets required to maintain a presence in the Arctic. This group includes both considerations of infrastructure (such as port facilities) and equipment (such as icebreakers and aircraft). The second category of assets focuses on information and communication. This second group includes both access to specific types of information such as navigation charts and equipment such as satellites to support operations. Although there is variety of equipment

identified as required for Arctic operations, this paper will focus on the challenges surrounding icebreaker capabilities.

The icebreakers are presented as a critical element necessary for arctic operations. Icebreakers are any ship specially designed for aggressive operation in ice-covered waters. These vessels are classified by the International Association of Classification Societies (2011) based on hull shape, vessel weight, shell plate, framing, and steaming power that allows is the break through sea ice. These ratings range from Polar Class 1 (PC1) for vessels able to operate year round in polar ice to Polar Class 7 (PC7) for vessels able to operate in first year ice. First year ice is ice from one winter's growth. This ice tends to be weaker than multi-year ice because multi-year ice is both denser and contains less salt content (Transport Canada, 2015). The amount of icebreaker capability needed to operate successfully in this environment is dictated by a varied set of considerations.

Attempts to Frame the Coast Guard Requirement

The coast guard has had engagement in the Arctic from the turn of the last century through its predecessor the United States Revenue Cutter Service (USRC) (USCG Historian's Office, 2012). In order for the USCG to continue its ability to be effective in this region, the agency must address three issues effecting how it identifies its icebreaker requirements. First, any discussion of USCG in pursuit of funding must be placed in the context of its relation to the larger Department of Defense (The Economist, 2007). Second, the agency went through major reductions in both funding and personnel in response to the reinventing government movement in 1997. Finally, a short time after reductions, the Coast Guard saw substantial expansion in its mission set due to: 1) its incorporation into the Department of Homeland Security, and 2) the

expansion of the Arctic domain. The discussion of requirements must as a result be understood against the backdrop of these mission sets.

The coast guard is an organization with 11 statutory missions (GAO, 2011a). These missions includes: 1) defense readiness, 2) ice operations, 3) marine environmental protection, 4) ports, waterways, and coastal security, 5) aids to navigation, 6) search and rescue, 7) law enforcement, 8) living marine resources, 9) marine safety, 10) drug interdiction, and 11) migrant interdiction. Assets are used to support these statutory missions independently and in support of other Federal agencies. The unique assets are also operated outside of immediate statutory requirements through its support of other Federal agencies.

In response to the challenged posed by the expanding mission set in the Arctic, the USCG initiated a study that helped frame the challenge regarding resource requirements. This resulted in the High Latitude study which states that nine of the eleven mission sets would be affected if the expanded mission set in the Arctic was not also matched with additional resources. Four mission areas were predicted to be significantly impacted (defense readiness, ice operations, marine waterways & ports, waterways & coastal security), three mission areas were predicated to have moderate impact (aids to navigation, search & rescue, law enforcement), and two mission areas were predicted to have low impact (living marine resources, marine safety). While icebreakers would serve multiple mission sets listed, ice operations and search & rescue missions are explicitly linked to icebreaker capabilities in this report. The implication is that while icebreaker capabilities may be crucial, they represent only small portion of overall USCG concerns.

The Coast Guard responsibility for icebreaker capabilities was not always theirs alone. This was a function that was shared at one point with the US Navy but those responsibilities

were consolidated under the USCG in 1982 and reinforced in 2008 (GAO, 2010a). As a result, other federal agencies requiring support turn to the Coast Guard to fulfill this requirement. Notable among this list is the National Science Foundation which uses the Coast Guard icebreakers in support of scientific missions in the region. This relationship was so closely linked at one point that the NSF had budgetary authority over the Coast Guard icebreakers between 2006 and 2009 (DHS OIG, 2011).

Another study also aims to provide an estimate of requirements. The Congressional Research Service (CRS) noted that three heavy and three medium icebreakers are needed for Coast Guard mission and that an additional three heavy and one medium icebreaker are required to support Navy missions (O'Rourke, 2012a). This estimate itself may be unrepresentative given that it does not include the requirements of other agencies operating in this region. This heavy interrelationship between the USCG and other Federal agencies complicates the ability of defining a stable predictable requirements against which to plan acquisition needs.

The Current USCG Capability

The current Coast Guard icebreaker fleet is composed of a total of three icebreakers (DHS OIG, 2011). The USCG Cutter Star is a heavy icebreaker commissioned in 1977. This vessel became inoperable in 2006 with plans for recapitalization in 2012 to extend its service life until 2020. The USCGC Sea is also a heavy icebreaker initially commissioned in 1977. This vessel is currently out of service following major engine failure in 2010. Finally, the USCGC Healy is a medium icebreaker and is the only icebreaker in the national fleet that is currently operable at the time of this writing. This medium icebreaker was commissioned in 1999 and has an expected service life ending in 2020. Given that a single icebreaker can cost in the vicinity of

\$1Bill (Salerno, 2012), a simple option to purchase more vessels is not ideal given the numerous priorities the Coast Guard faces.

A few reports attempt to provide the options available for congress in addressing this funding challenge (DHS OIG, 2011; GAO, 2010a; O'Rourke, 2012a). These reports tend to be focused on combinations of investments to recapitalize current assets and purchasing new icebreakers. There have been some considerations of other options as well. Partnering with other nations of required icebreaker capabilities is seen as one alternative. As an example, in 2011 the State Department signed an agreement with the Arctic Council for shared SAR capabilities. Such an agreement could reduce the required amount icebreakers necessary to support USCG SAR mission in the region. Another consideration focuses on purchasing these capabilities from the private sector. The private sector is already operating in this region and the private organizations were the first entities to successfully traverse both the Northwest and Northeast passages.

It is important to note here that not all the risk presented by an expanded mission set without additional capabilities needs to be reduced solely through icebreaker capabilities. The High Latitude study conducted for the Coast Guard provides a number of force bundles considering combinations of vessels, aircraft, and installations in reducing the expected risk to mission sets estimated between \$1.01 bill and \$6.08 bill (GAO, 2010a). It becomes clear that the dialogue on requirements has a broad range of options that can be considered placing the technical challenge of identifying a response within a malleable context of definition.

Balancing Acquisition Priorities

A review of the FY11 budget for the Coast Guard (GAO, 2010b) reveals a more complex picture of the situation. The mission sets affected by the Arctic only constitute 12% of all

mission spending (a \$1.077 Bill for SAR & Ice Operations of a total \$8.466 Bill for all mission sets). This point reiterates that those mission sets most directly affected by icebreaker capability constitute a small portion of a wide range of demands placed on this agency. Another trend is also notable when comparing the FY10 budget request to the FY11 budget request. While the overall budget request is smaller, there is a significant shift of budgeting priorities from acquisition of assets and infrastructure toward operations costs.

Given the small portion of the USCG budget now allocated for recapitalization and acquisition of necessary assets, it is informative to note that there are numerous asset requirements in the USCG's acquisitions priorities. These assets are enumerated by the USCG's Acquisition Directorate (USCG Acquisition Directorate, 2012) to include three areas of consideration. First, aviation projects focus on surveillance aircrafts, recovery helicopters, and unmanned aircraft. Second, surface priorities include cutters (to include the National Security Cutter and Fast Response Cutter), icebreakers, and boats. Finally, a host of assets are identified to support communications requirements.

Most of the assets which make up the coast guard acquisition priorities (especially the National Security Cutter) could perhaps be linked to the major acquisition known as the Deepwater Program. This program was initiated in the late 1990s and subsequently expanded following the attacks in 2001 to include additional capability (Birkler et al., 2004). This program was ambitious in its scope and intended to be a major replacement of USCG assets by 2020. This major acquisition initiative was combined with a new perspective on how acquisition practices. The failure of the program in the subsequent years to yield the promised results laid out in its early stages resulted in scrutiny from both Congress and think tanks alike (Birkler et al., 2004; GAO, 2011b; O'Rourke, 2012b).

Chapter 5: Analyzing Fidelity of Normative Orders

The preceding chapters lay out the argument why the ability to study normative orders is an important contribution to institutional theory. Those chapters also present a methodology for how normative orders are approached in this study. This chapter presents the findings that resulted from implementing the proposed approach. It begins with a review of how the analysis is structured and then proceeds to the findings arranged according to two sets of hypothesis. The final section of this chapter provides some broader observations on the manner that normative orders are invoked based on the finding that normative orders tend to be invoked with a lower degree of fidelity in the case presented here.

Structure of Analysis

The findings are structured around two sets of hypotheses. The first set of hypothesis address the issue of normative orders at the individual level. The question addressed is what degree of fidelity do individuals invoke normative orders. Fidelity refers to how closely individuals adhere to normative order and will be measured in two ways. The first measure examines whether a clear preference is invoked by looking at how often an instrumental or constitutive normative order was invoked. This is done for each story provided by each individual using a simple frequency count. The second element of fidelity is the uniformity with which a normative order is invoked. It asks if a normative order that is invoked to describe strategy would be the same normative order used to describe legitimacy. This comparison will also be tallied through a frequency count. As noted in chapter 3, it is not just individuals that may develop a pattern of invoking normative orders. Prevalent narratives that are shared in an organization can be said to “invoke” normative orders. The second set of hypothesis explores these same two elements of fidelity but applied to narratives rather than individuals.

Table 7 - Hypotheses for Testing

	Individual	Narrative
Clear Preference	H1.1 Individuals will demonstrate a clear preference (albeit not an exclusive preference) for a single normative order.	H2.1 Narratives will demonstrate a preference (albeit not an exclusive preference) for a single normative order.
Uniform Application	H1.2 Individuals will invoke the same normative order in a single story for describing both strategy and legitimacy.	H2.2 Narratives will use the same normative order in a single story for describing both strategy and legitimacy.

Different parts of a narrative help provide insight into different aspects of organizational behavior. Sequence provides insight into process and events, narrative voice provides insight into relationships and power. It is moral context, however, that is the focus of the analysis here because of its ability to provide insight into cultural values and assumptions that may help shape administrative judgement (Pentland, 1999). The moral of stories will be used to determine with what fidelity normative orders are invoked by either individuals or narratives.

Individual Fidelity

Overall Population Characteristics

The chapter analyzes nine (9) interviews with US Coast Guard personnel who are seen as having equities in the question of how the agency would respond to the question of the impact of diminishing Arctic ice. While the interviews were open to civilian or military personnel working with the USCG at the time, only one of the nine individuals is a civilian with the remaining eight individuals representing military officers. The group represents a considerable amount of experience within the agency with as little as 6 years and as much as 21 years working with the

USCG. Interviewees averaged 15.5 years of working with the agency with a total combined of 140 years of US Coast Guard experience. The individuals represent field grade officers and senior civil service personnel with one of the interviewees at the O6/GS15 level, four at the O5/GS14 level and four at the O4/GS13 level. The group also reflects a wide cross section of backgrounds within the USCG community with individuals identifying themselves as originally as Merchant Mariners, pilots, environmental scientists, lawyers, policy experts, and mechanical engineers. The nine interviews also represent career USCG personnel with only three of the nine joining the USCG mid-career. The remaining six individuals entered the USCG through the Coast Guard Academy or soon after completing their undergraduate work elsewhere. Despite this range of backgrounds and experience, responses are surprisingly consistent across individuals.

H1.1 – Clear Preference of Individuals

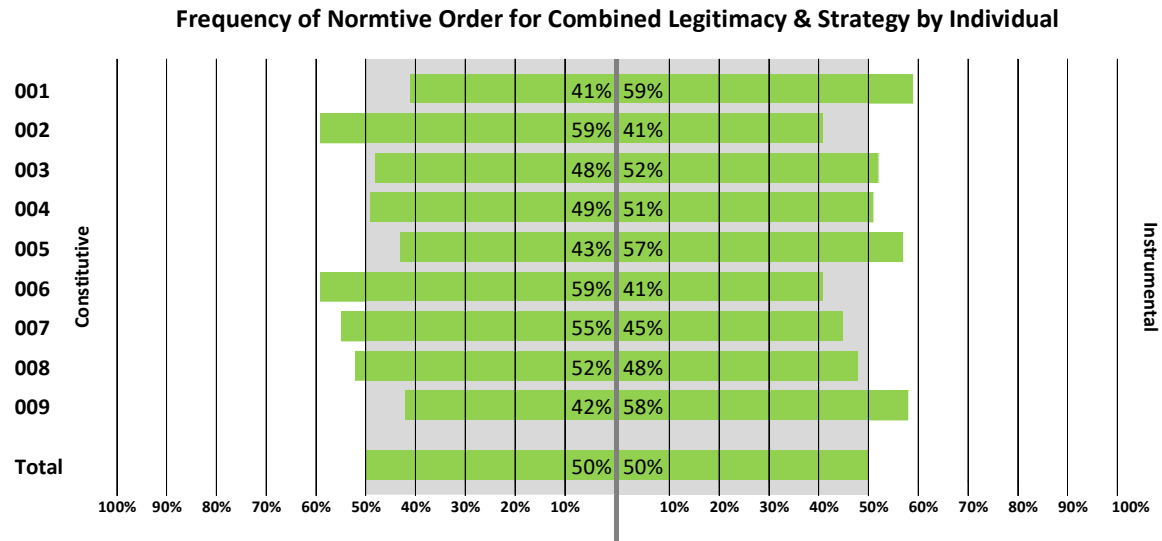


Figure 1 - Preference of Individuals Invoking Normative Orders

Graph 1.0 considers the stories of each interviewee (001, 002, etc.) with a total aggregated result at the bottom of the graph. Each bar depicts what frequency the individual invoked either an instrumental normative order or a constitutive order as a percentage of total

times that a normative order was invoked. The grey region depicts the region in which either normative order would have been invoked exactly half the time suggesting no actual preference. The sections of the bars that extend beyond this grey region indicate a slight preference toward one or the other of the normative orders. Higher confidence that a preference is not random is depicted by a dotted outline around the bar which was calculated using a chi-square test. Graph 1.0 shows that there is no preference noted with a high level of confidence in any of the interviewees or in the aggregate. In four instances, individuals show a slight preference for constitutive explanations while five demonstrate a preference for instrumental explanations. But these preferences are so slight given the number of interviews that they fall within a margin of error. This result suggests no real preference demonstrated by any interviewee for either type of normative order.

Frequency of Normative Order for Disaggregated Legitimacy & Strategy by Individual

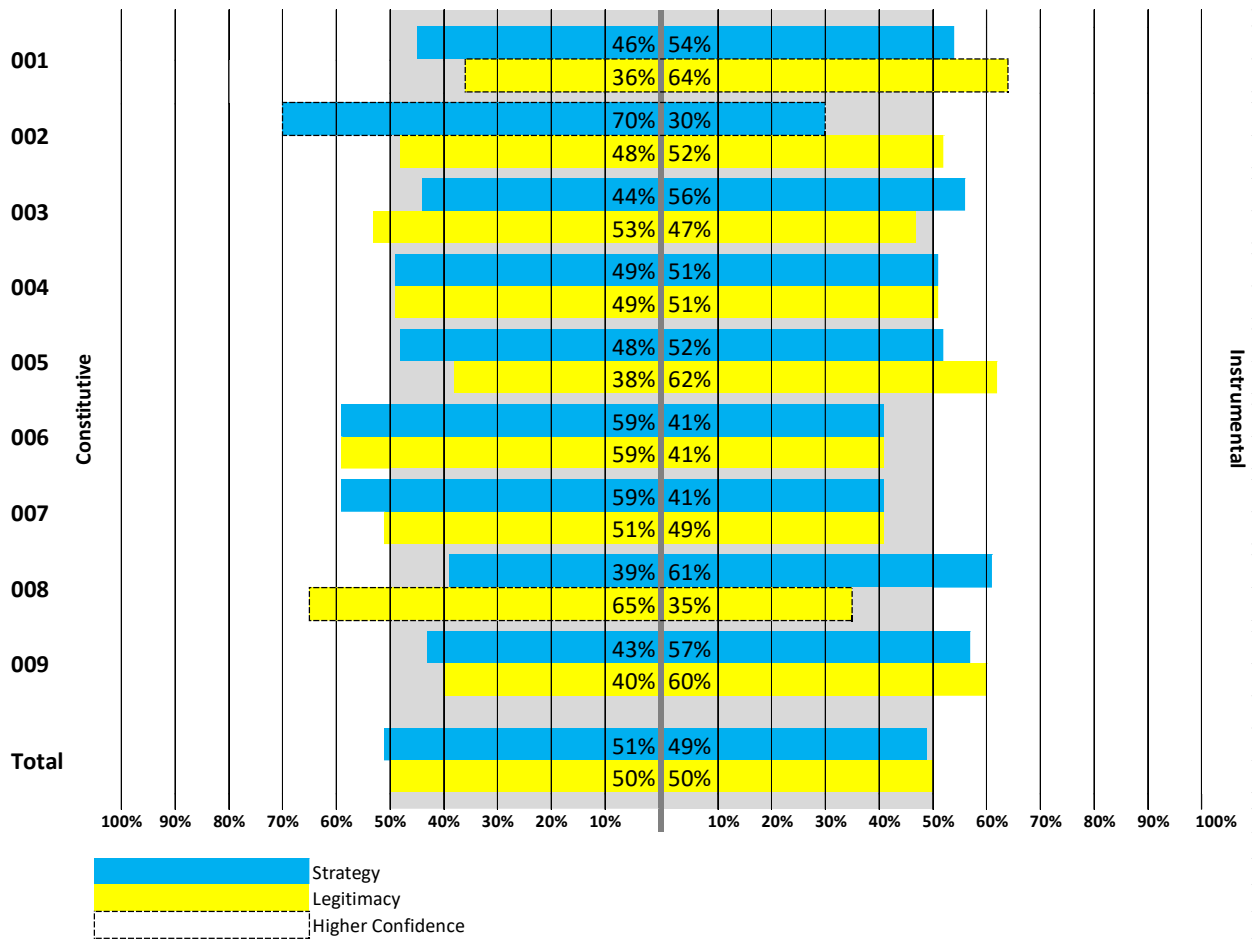


Figure 2 - Preference of Individuals Invoking Normative Orders Disaggregated by Strategy & Legitimacy

An only slightly different picture begins to emerge in Graph 2.0 which disaggregates how often an individual invoked each normative order when talking about strategy or legitimacy. While there is still generally no strong preferences expressed especially when considered across all individuals, some exceptions present themselves. Interviewee 001, for example demonstrates a strong preference in using an instrumental normative order for legitimacy but only a weak preference in the same direction for strategy. In the following examples from interviewee 001, the interviewee reflects on the balancing act of reallocating funds as efficiently as possible (instrumental concern for strategy) within the bounds set for the USCG by congress (instrumental perspective on legitimacy).

Well, expanding mission set with no resources means something has to give. You can't do everything at the same level. There is not a perceived fatness if you will in our budget right now so the question is something has to give and I it goes back to the acceptable risk definition. What gives, what don't we do, because there is not a reservoir of funding where...you know, where we are fat. Everything is already very lean and cut to the bone. You are beyond cutting muscle here. You are cutting bone. We are amputating limbs at this point. Interviewee 001 – Story #15

The interviewee goes on later to expand on what might be meant by “cutting bone”. He expands on the idea that reallocation does not necessarily mean that other mission areas or regions receive less funding but that the USCG as a community will have less support for its members potentially hurting morale and recruitment.

You may get a third of the funding you need and then you'll get two thirds perhaps from congress when indeed everything else is suffering you devolved the housing for you families, you shifted the cost onto the members of the Coast Guard. You no longer supply housing or medical benefits. You close the Coast Guard academy. We haven't eaten from inside to the point that...then I get a feeling they would throw a life line. But I think it should be more, “here is the bill for this service and if it is not in our national interest then, ok, it's not.” Interviewee 001 – Story #16

Interviewees 002 and 008, by comparison show a strong preference in the numbers of times constitutive orders were invoked for strategy and legitimacy respectively while showing a preference for the other normative order for the other factor being considered. As an example, here are some excerpts from interviewees with 002 in which he reflects on how the challenge is framed. The excerpt begins as a reflection on regulations not changing until a tragedy occurs in the Coast Guard operations then shifts into how the Arctic challenge should be framed to get attention before such a tragedy occurs. He argues here that the problem should not be framed as a defense issue even though that is what is getting funding right now. This concern with how the issue is framed is part of a strategy to help in defining a community good which reflects a constitutive concern for strategy but it is based not on the USCG expertise in this domain but their neutral competence following the direction that will eventually be laid out for it by congress.

I think that the challenge is ... like many things that Coast Guard does, I think we unfortunately are going to wait until the argument shapes us. There's a saying within the Coast Guard that, “All our regulations are written in blood. “you don't get new regulations on safety don't occur until somebody dies. The unfortunate answer is potentially the Coast Guard is going to continue to tilt their windows until a ship goes out there and sinks, and

everybody in that ship dies. One of two things that are going to happen when that occurs, the first being, is either people down at a little 48 are going to go ... “Those people shouldn’t be up there.’ Or, “Coast Guard, you should have done something.” That becomes a threat because Coast Guard is an organization who have to either defend themselves, or It’s a 9/11 [world] where Congress realizes a tragedy and then throws resource at it. The Coast Guard doesn’t win this argument. It may be more appropriate if the Coast Guard allow another agency to run with the argument, do not turn it into a security issue. Make it an environmental issue, and show your worth there. Can’t make it a defense issue, because I don’t think it’s a defense issue. Make it an environmental issue. Make it a civil issue. I’m not sure what that would be, but I don’t think the current argument wins. Interviewee 002 – Story #15

The same sort of logic continues in later discussions with 002. In this story, the interviewee thinks about how the USCG would respond to the requirement to reallocate resources within its current bounds to achieve its missions. This at first seems to suggest a strategic concern with efficiency but the story goes on to point out that this would be short sighted because such a strategy would be immediately called into question should a fatality occur due to the absence of navigational aids being in place. The real moral is that a consistent agreement on what the public good needs to be identified and maintained by congress after which the Coast Guard would work to realize those ends in a neutrally competent fashion. This suggests a constitutive strategy and instrumental perspective on legitimacy.

“Okay, where do we start to strip our missions? Or where can we accept some risk to our mission?” I guess to top that, look at buoys. The safety of navigation and voyage in the water ways. One could argue that this nature of satellite technologies so prevalent that neither buoys is not as this important down the lower 48 where satellite cover is good, and that there’s the Arctic where the satellite coverage is not good. You may want to move resources from the lower 48 up to there to insure that the buoy system I place so ships can navigate without running around that we don’t know about. That might be a move. However, understanding that that’s a recurring thing, because every time the ice comes back it’s going to move your buoys and you have to go back and the damage of it is the cause of the problem there...If you’re going to reallocate resources that would be one area which is good until one congressman’s son runs the ground down here because you don’t have a buoy in place then asks, “Where are all your buoys for thunderstorm?” You have to argue that there not here. Interviewee 002 – Story #18

Interviewee 008 shows the opposite pattern than that exhibited by 002. Here the respondent demonstrates a strong use of constitutive normative order to justify legitimacy and a tendency toward instrumental normative order to describe strategy. 008 talks about the expertise of USCG working in the maritime domain to make determinations on how operations should be structured (constitutive reasoning for legitimacy) to achieve ends efficiently (instrumental

framing of strategy). This first example applies this reasoning to how inspections could be best handled.

Our checking of company's compliance of regulations have been much earlier than when that drill rigs gets to the site where it's going to drill. For example, Kulluk was actually inspected in Seattle just about a year ago, before it went up to the Arctic to drill. It was inspected for compliance when it visited Seattle; it was inspected by Coast Guard inspectors in Seattle. We track where these ships go and we'll do the inspections before they get to where they need to do their work. It's a lot cheaper to do the inspection in Seattle than it is do it up in the ocean north of Alaska. It's cheaper and safer...More effective. More effective. You can do the inspection when the ship is in a calm harbor. Interviewee 008 – Story #24

Then the same sort of logic is applied to the question of the timing for when new icebreakers should be acquired when compared to other classes of cutters needed by the USCG for different types of missions.

When you have to weigh we know we absolutely need the National Security Cutters right now because they're replacing a fleet of old ships that are dying compared to we don't really when we need the new capability of a new ice breaker. Let's just focus on what we know, and that's to build the National Security Cutters. Interviewee 008 – Story #20

And then again to the question of how to time the acquisition of infrastructure for the Arctic.

Make the connection too, that any kind of Arctic infrastructure has the same kind of decision logic. Let's say we need some communication radio towers. They also last only a certain number of years, and they take a certain number of years to build. When do you really need that capacity, starting now or starting 10 years from now? Same thing. We don't want to pour our money into something that is just going to sit, not really be used a lot, and then rust. Just at the point when human activity is really increasing in the Arctic, maybe 20 years from now, all our infrastructure will be old and falling apart. We might as well just save our money and build it later. Interviewee 008 – Story #21

While there are some instances where individuals did show a preference for both strategy and legitimacy in a single direction, none of these instances demonstrate a strong preference for both elements.

H1.2 – Uniform Application by Individuals

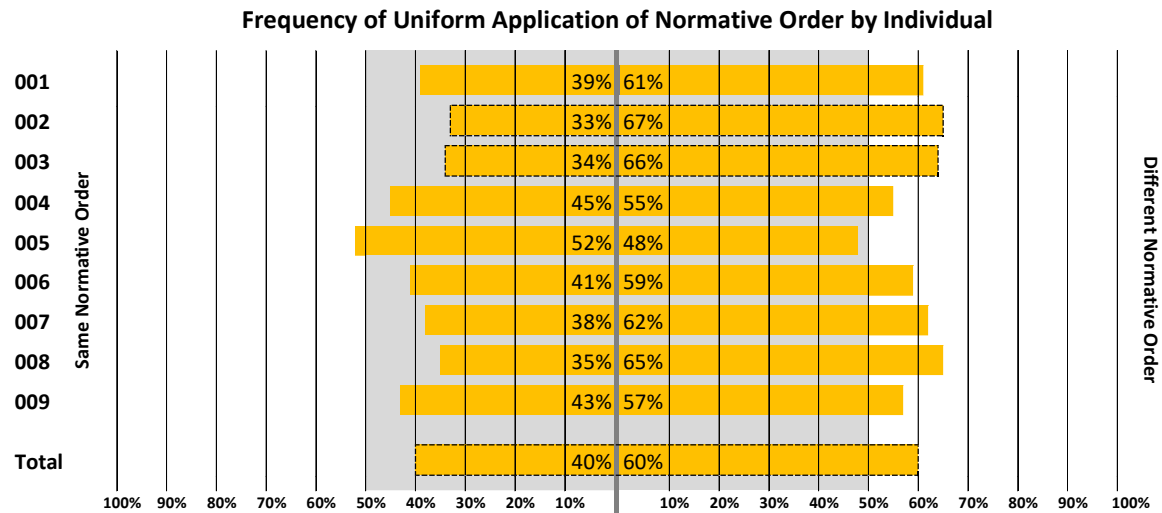


Figure 3 - Uniform Application for Individuals Invoking Normative Orders

Graph 3.0 is somewhat more interesting. Like graph 1.0, graph 3.0 is organized by each interviewee with the total at the bottom. The fidelity being measured here, however, is whether the interviewee used the same normative order to describe both strategy and legitimacy. The left-hand side indicates that the same normative order was used (i.e., instrumental-instrumental or constitutive-constitutive) and the right-hand side indicates where these orders were not applied uniformly (i.e., instrumental-constitutive or constitutive-instrumental). Of the nine interviewees, eight demonstrated a preference for invoking normative orders non-uniformly with two of those times being a strong difference. Most significantly, the aggregate preference of all stories was to invoke normative orders non-uniformly and this tendency is a strong difference.

The following two stories follow a similar non-uniform application of an instrumental strategy paired to a constitutive explanation of legitimacy. In both stories, the interviewee is reasoning about how to maximize efficiency of operations by employing the best knowledge that the Coast Guard has on operations in the first story and acquisitions in the second story. It is evident in these reflections that this balancing must draw on past USCG experiences in understanding how to operate in the Arctic. This is further compounded by the uncertainties

revolving around future requirements which will be dictated by a combination of continued Arctic ice melt and the associated human activity that is anticipated to occur.

The decision gets made out of the Coast Guard. The only thing that the Coast Guard does internally determine what risk is willing to take to do things in the Arctic concurrently. We take the risk by taking a ship and moving it up there. That ships not doing other things that it could be doing. We take a risk. It's a calculated risk. It's an analysed risk, and they do it. What we do is contrary, or how we fund the Coast Guard to do other things in the Arctic is also ... I don't know how they do that. Interviewee 002 – Story #24.

It is difficult to do an Arctic ice breaker, moving forward an Arctic ice breaker. How to phrase this. Ice breakers or any ship is very expensive. Ice breakers are probably three times as expensive as a normal ship, we're talking very expensive. I've heard estimates that a new Coast Guard ice breaker built for real Arctic use would cost just under a billion dollars, so they're really expensive. Then, you've got this whole unknown about when. Ice breakers are expensive, they take about 10 years to build from the time you say you want one to the time it's launched because of the budget process, and then the design process, and the construction, 10 years. Then they only last for a certain amount of time. They're going to last you about 30 years. Ice breakers will last a little bit less time than a normal ship because ice breakers hit hard things all the time, so they rattle themselves apart. It takes 10 years to build and it will last 30 years. The question is, yeah the Arctic ice might be melting, but when do you really need that 30 years of capacity or capability. You need it starting 10 years from now. If that's true, we should start the process right now, or do you need that 30 years of capacity starting 20 years from now, when there might be a little less ice, but a lot more human activity. We don't know that. Interviewee 009 – Story #19

Narrative Fidelity

Overall Population Characteristics

25 recurring narratives are identified during the study that are used by interviewees (see appendix B). These are reduced to eight (8) narratives used in the analysis. These eight narratives are used by at least 8 of the 9 interviewees representing broad usage within the population interviewed. These eight narratives are used on average 25 times each across all interviews.

Table 8 - Frequency That a Narrative Was Used by Each Interviewee

Narrative	Interview									Total Use	Used by Subject
	001	002	003	004	005	006	007	008	009		
1	0	0	2	4	3	5	6	1	0	21	6
2	3	4	4	3	2	5	3	1	2	27	9
3	1	0	0	4	0	0	1	0	0	6	3
4	1	3	4	6	1	3	0	6	3	27	8
5	1	0	0	4	0	2	2	2	1	12	6
6	3	3	4	6	0	0	7	3	3	29	7
7	2	0	2	0	0	1	2	0	4	11	5
8	2	0	4	1	4	6	4	4	2	27	8
9	2	1	1	2	0	8	2	2	0	18	7
10	1	1	0	4	0	0	3	2	2	13	6
11	2	2	0	2	1	0	0	2	2	11	6
12	6	2	5	5	4	1	2	2	3	30	9
13	1	0	1	3	1	0	0	1	0	7	5
14	0	2	3	2	1	7	4	0	2	21	7
15	0	3	2	2	1	5	2	2	3	20	8
16	1	1	1	0	0	1	0	0	0	4	4
17	1	1	3	0	0	1	3	1	4	14	7
18	1	2	1	4	1	3	2	0	2	16	8
19	0	2	3	2	2	1	2	1	0	13	7
20	2	0	2	2	1	1	0	1	1	10	7
21	0	0	2	2	0	0	0	1	0	5	3
22	0	1	0	4	0	0	4	5	5	19	5
23	0	0	2	1	0	3	2	1	1	10	6
24	4	0	2	4	1	2	2	5	3	23	8
25	1	5	3	7	3	3	4	2	2	30	9

The eight resulting narratives are employed in various fashions as illustrated here.

N2 – The Arctic is a US national interest.

Whether the Arctic is a US national interest played heavily into the discussions on how the USCG should respond to melting Arctic ice. The question at stake was not whether there would be more activity in the region but whether it would be something that US policy would prioritize over other issues. One respondent expressed it concisely as:

I think if you agree with the thesis that the United States is an arctic nation, and I do, at stake [if we are not able to operate in the Arctic] is a loss of the ability to exert influence, assist citizens, in that domain. And, by extension, to assure US national interests in that region. Interviewee 001 – Story #1

The challenge that emerged from discussions was the recognition that the majority of the US population did not see the Arctic is a national interest because of the Arctic’s distance from the lower 48 states. The need to constantly remind individuals of the large border that Alaska has

along the Arctic as well as US resource extraction in that region was a recurring challenge noted during some interviews.

I think bringing people back to the fact that, "Hey, we do touch the Arctic, this isn't ..." is actually critical in making this argument, so it's a reality check a little bit. We are an Arctic nation, but we do have resources up there, we do have an imperative to create policy and figure out how we want to operate and what value that is to us as a nation. I think that's what his statement means. I think that's NSPD-66 says, "Oh, yeah, we are an Arctic nation, we do, as the U.S. government have interest in that area, and this is what it is." What that means, I think, is then for the agencies to determine what that is for them in terms of priority and mission set and development over time. Interviewee 007 – Story #16

Some individuals also compared the behavior of US policy toward the Arctic to other Arctic nations. Even if the recognition that the US borders the Arctic via Alaska, the argument is made that US shipping and security is tied up to transit through the Arctic which should still be seen as a national security interest irrespective of geography.

Knowing that this is a new ocean forming before our eyes, there are routes that you can take that have to be kept ice clear for ships to take, and ninety percent of U.S. commerce travels by sea, do we want to sort of hedge our bets that Russia ... do we trust Russia with icebreaking capability in the Arctic, or should we have our own? I think that is a decision point for this country. Interviewee 003 – Story #20

N4 – Arctic Operations require unique technology.

Many of the concepts presented by Salerno at CSIS, as noted in chapter 4, regarding the difficulty of operating in the Arctic were reiterated during interviews. The lack of training, information and equipment unique to the Arctic were noted. Of these deficiencies, a considerable more focus was placed on unique technology/equipment required to operate in the Arctic. One interviewee illustrated this point by comparing the Arctic to other operating domains like air, surface, and underwater.

From my perspective, it's just another body of water and that we have sufficient authorities, we have sufficient responsibilities to complete Coast Guard missions... Much like they're up in the sky is unique than being on the water. Being under water is unique than being on top of the water. It's a different area that requires different abilities and capabilities. Capabilities meaning tools to do the job, and capacities is how much of those tools you need. I would argue that the Coast Guard has what it needs to do up there as a matter of rules, but what we don't have is the equipment to operate in that new domain. Interviewee 002 – Story #4

But the majority of discussants gravitated toward the idea of icebreakers as the unique technology more at stake for the USCG's ability to conduct missions in that region. Perhaps this

was due to its long lead time and high cost compared to other technologies. Comments such as the below were common during interviews.

We don't have the capability yet. We had the capability 10 years ago, we had two fully functioning polar icebreakers. Right now, we have zero heavy icebreakers and one medium, that are fully functioning and I think we'll get one heavy online next year... Interviewee 003 – Story #23

N8 – Getting to deliberate planning is needed but not possible in the USCG.

A common narrative during interviews was the juxtaposition of the recognized and accepted need for deliberate planning on the one hand and a reactive USCG on the other hand. While this tension is common to many organizations, it was often expressed as a unique USCG characteristic. Most narratives also ultimately see their organization as reactive in this struggle to balance both the need to plan and be responsive.

I think it's our nature to think and act tactfully, so in that we're normally responding and the Coast Guard, by nature responds, our bread and butter is search and rescue and when that's built into your blood, on a day to day basis, it's hard to look one year in advance, let alone, 10, 15 years in advance. But in order to be successful, an organization does have to look that far ahead and to look at some of these uncertainties, and plan for them, or at least lay them out as potential threats. Interviewee 005 – Story #5

The most common organization to make the comparison with was the Department of Defense which was seen as deliberate and steady compared to USCG “fire house mentality”.

We routinely go up there on patrols and station ships up in that area to be available, cutters to be available, to assist as a preventive nature and part of it...you know, its different from the DoD where they do dedicated missions. A lot of what we do is, uh, fire house mentality... Interviewee 001 – Story #5

N12 – Public perception drives decision making.

Interviewees seemed to be very cognizant that public perception had the ability to shape how the USCG would ultimately operate. This is due to the high level of connectivity and news sources that would be available to people.

As the Arctic becomes a more visible operating area for the United States generally, when you just have to turn on cable television to see it. Everybody's got their own Arctic show...So there's a spotlight being shown on the Arctic right now, and that's probably true of the Coast Guard as well. Interviewee 006 – Story #14

The interest of people in the Arctic due to television, however, is in contrast to Narrative 2 which talked about the struggle to maintain the Arctic as a concern for people living in the lower 48

states. This comes back to the question of perception really being shaped not by the main media cycle but when a tragic event finally occurs in the Arctic drawing the attention of the general population and law makers. This is where the USCG finds itself in the uncomfortable middle of a discussion on how to judge the value of life in resource allocations.

I think the answer to that question is entirely political, right? Because on the face of it, each life is probably has equal importance, so the question then is, what garners more attention at the national level? Probably right now, what would garner more attention at the national level would be the lost lives in the Arctic, but the fact is, people lose their lives every day and they hit the floor of the street, folks leaving Haiti and Cuba, especially. That certainly raises concern for the Coast Guard because we're out there, but it's not something that attracts national level attention. Interviewee 19 – Story #18

N15 – Cooperation and consensus should be achieved wherever possible.

The idea that the USCG should work collaboratively was prevalent in interviews. This was true regarding collaboration with other US government agencies, at different levels of government, with the private sector, with international organizations, and with foreign governments. This contrasts with the picture of the Arctic as a primarily competitive space where sovereign nations are competing for resources. Much of this sort of discussion revolved around the Arctic Council and other similar international organizations attempting to provide some vehicle for international cooperation.

The Arctic Council is great. I think it's great. It serves the purpose being the conscience in getting good things started, and being a central clearinghouse for research and some ... It gets people together. There's no better single place where people get together to talk about the Arctic. Interviewee 008 – Story #31

Another interviewee offered a different example of useful cooperation at a vastly different scale. This example was not about building cooperation and trust for security reasons but about managing resource requirements.

...when I was stationed in the West Coast of Florida for Marco Island, the state or locals had a boat house down there. They would let our boat stations put their boats down there when they're forward deployed. That was an example where, "Hey, we didn't have to build infrastructure there. It's already there, we can just borrow it." Interviewee 009 – Story #29

N18 – There are innovative solutions for icebreaker requirements.

As noted in narrative 4, icebreakers had emerged as a common focal point during interviews as an example of the unique technology needed to operate in the Arctic. This unique technology, however, was seen to be able to be provided in a number of ways. Among the leading contenders was cooperative agreements with other nations that had more icebreakers, leasing icebreakers, and perhaps the most innovative was the requirement of industry to provide their own icebreaking capability if there were to operate in that region. The first example below focuses on working with industry to develop and mature this approach with private sector partners.

It could be an icebreaker. It could be a ganer robot with an ore pushing the ice out of the way. Once you determine what level of ice capable, that's what you need...Or do you have one modern icebreaker and build an industry, those industries going to work out there. You tell them that they have icebreakers. That's what happens in oil spills. There's this huge oil spills Reponses in major ports that are made. Why? Because they've discovered mandated industry by saying you have to clean up the oil fast. Make them do the same thing. Interviewee 002 – Story #19

Which approach would ultimately be taken was often tied back to the question of what is decided as the US governments responsibility and its desired level of involvement. The next example shows clearly the tradeoff as seen by some interviewees.

No, I think if I was to consider alternatives, I think the way that I think about that is the federal government has to make a decision whether we want organic capabilities to operate on the North Slope. Whether this is a fundamentally federal responsibility to be able to respond or operate and function off the North Slope. If it is, then we need to look at equipping the Coast Guard with the personnel, the expertise, the assets...However, federal government could also make the decision that, "No, this isn't necessarily an organic capability. All we really need are the authorities to enforce private industry and citizens to act in a certain way and to be responsible for what they do up there." Interviewee 007 – Story #33

N24 – The Arctic is just like every other unfunded mandate.

Requirements placed on agencies without corresponding funds is not a unique problem facing the USCG. Interviewees, however, not only recognized the Arctic as a such an unfunded mandate but often made the point that the USCG is intended to respond to such requests without challenge. It even emerged as source of pride to the organization. Here are two statements reflecting this point.

It's a very hard thing to do. It's very hard to say, no, we can't. We always say yes, we can. And so we get a lot of unfunded mandates, you know. Interviewee 004 – Story #41

Anytime you ask any organization, the Coast Guard or any other organization to do more without any change in its existing resources, of course there are challenges; but the Coast Guard has been doing that for a long time. The Coast Guard prides itself on being an agency that can do more with less. Interviewee 006 – Story #21

N25 – Priorities will attract resources.

Priorities in this narrative were most often tied to law makers setting priorities. It is not surprising, then, that priorities set by lawmakers would then be expected to yield resources. This contrasts with narrative N24 which saw the Arctic as an unfunded mandate. Variability in this narrative was mostly seen in the nature of these priorities. In some cases, it was cyclic or sporadic.

So I think you just go through these hills and valleys. I do see the Arctic is going to be a continuous area of importance, given the large area and the natural resources, it's just going to develop over time and the resourcing to operate there should follow. Interviewee 005 – Story #4

In other situations, the emphasis was placed on the fact that the Arctic as a priority would continually lose when compared to other national security interests.

If the federal decisions say move forward in the Arctic because it's worth the money; it all comes down to money and priorities. To be perfectly honest, the Arctic is just not the highest risk we Americans have in the world. They're not going to get the money the Navy should...Other big priorities for America area keeping America safe from terrorism as terrorism moves into North Africa, northwest Africa, for example. Being postured correctly so that we're ready for whatever China might want to do. There are big areas of US interest that are far from the Arctic. Interviewee 008 – Story #11

H2.1 – Clear Preference in Narratives

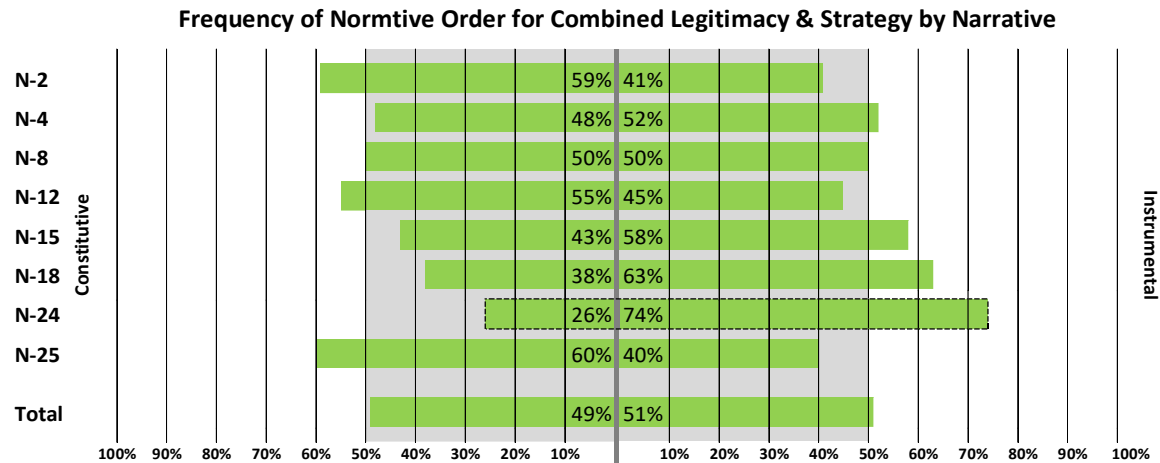


Figure 4 - Preference of Narratives Invoking Normative Orders

Like graph 1.0 from the previous section, Graph 4.0 depicts the frequency that a normative order was invoked. Rather than focusing on individuals, however, this graph considers the eight narratives identified for this study along the left-hand side with a total aggregated result at the bottom of the graph. Each bar depicts what frequency the narrative invoked either an instrumental normative order or a constitutive order as a percentage of total times that a normative order was invoked. The grey region depicts the region in which either normative order would have been invoked exactly half the time depicting no actual preference. The sections of the bars that extend beyond this grey region indicates a slight preference toward one or the other of the normative orders. Higher confidence that preference is not random is depicted by a dotted outline around the bar which was calculated using a chi-square test.

There is only one instance where a narrative demonstrated a strong preference toward a normative order. That narrative (N-24) sees the Arctic as another unfunded mandate which seems to have an obvious bias toward this normative order given its subject. This result may be reflective of how the narrative was identified and famed. This problem was presented by interviewee 008 favoring a strong preference for an instrumental normative order in descriptions of both strategy and legitimacy as:

There are three things that are new. Are they problems? I don't know if I want to call them problem, but they're challenges. There are three challenges: One is that with increased human activity in a new geographic place, we need to take care of our 11 missions in that new geographic place, but with the same number of ships and people. We just need to spread thinner. That's a challenge; that's probably a problem. You pick up that problem. Interviewee 008 – Story #8

It is a mandate, suggesting that there is no room for the USCG to help identify the desired ends. It is also stressing that the mandate is unfunded suggesting that the USCG is being relied on for its neutral competence to balance budgets rather than its practical experience in the maritime domain. There are three other instances where a narrative showed a slight preference for an instrumental normative order with another three demonstrating a slight preference for a constitutive normative order. The aggregate of all narratives shows almost a 50-50 split in preference for either normative order.

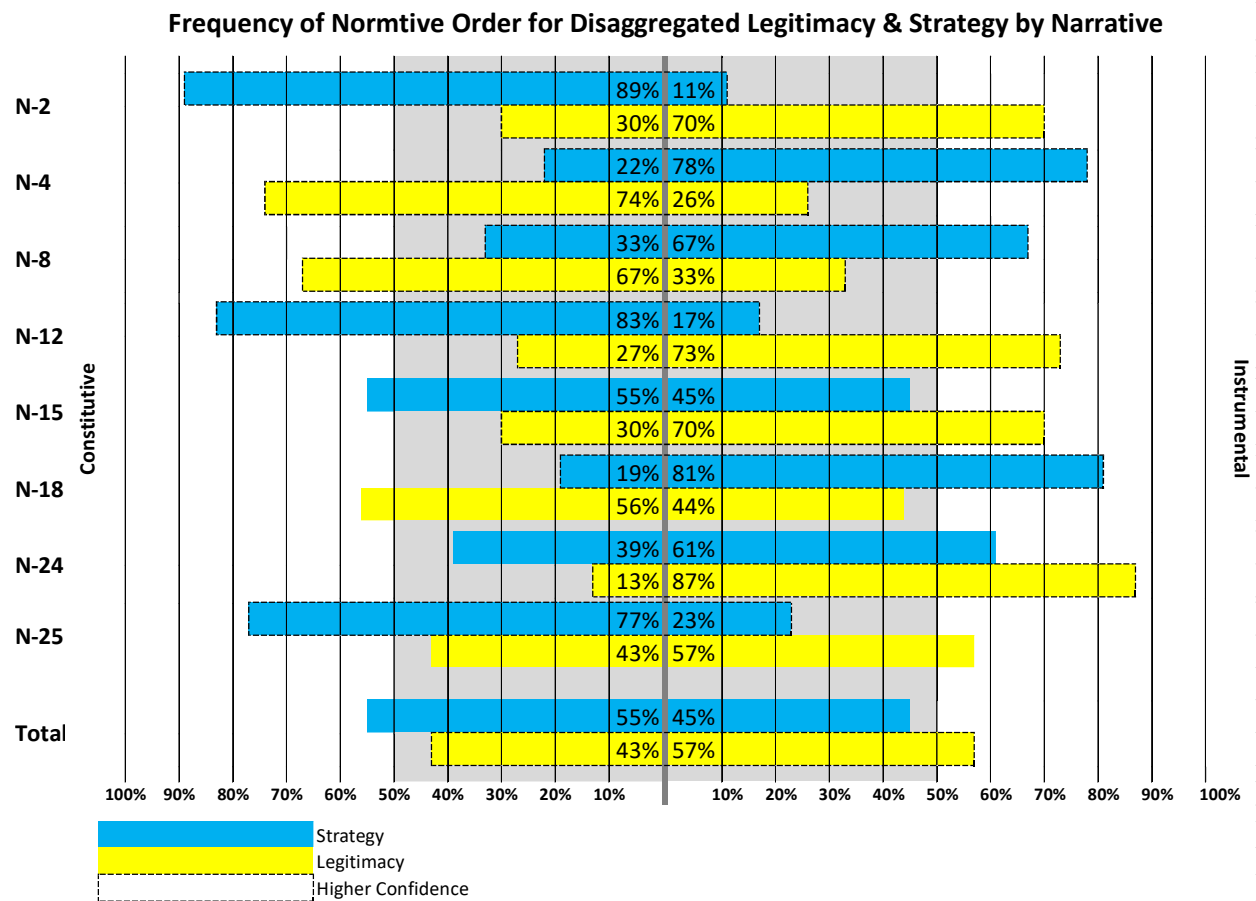


Figure 5 - Preference of Narratives Invoking Normative Orders Disaggregated by Strategy & Legitimacy

Graph 5.0 shows a serious departure from Graph 4.0 when the data is considered in its disaggregate state for viewing both strategy and legitimacy separately. While Graph 4.0 showed only one instance where a normative order was invoked more frequently, this graph shows that every narrative shows a strong preference for at least one if not both normative orders for elements of strategy and legitimacy. This graph also differs from Graph 2.0 in that only in one narrative is the same preference exhibited for a normative order (N-24). The first four narratives demonstrate a strong split for N-2, N-4, N-8 and N-12. It is perhaps also notable that in the aggregate legitimacy and strategy depend on different normative orders with legitimacy depending on a strong preference toward an instrumental normative order.

The following story talks about how the Arctic is temporally far away from the concerns of most Americans and so does not enter into the minds of most Americans. This is a recurring challenge as noted earlier in how congress may allocated resources for Arctic missions but also how the USCG would judge risk in not allocating resources within its current resource allocations. A Good strategy in this scenario is suggested to be when the public can decide what it is that is important to them. This is an exercise in defining the community good which is a trait of the constitutive normative order for strategy. This determination in turn is best handled by public discourse in which the USCG is a neutral executor rather than as a participant in the discussion reflecting its instrumental basis for legitimacy.

I think it's, uh...well, I mean, I think it's a bigger problem for the nation but I don't think it is viewed that way. I think we tend to have a very what's over the horizon what can we see and touch and the arctic is not in our backyard it's a ways away and it doesn't really impact people's lives...yet...directly. I mean I think they think it's a shame when something happens. Or worse, like an exon valdez if that were to occur up further I believe you would have very isolated interest. The sierra club, the environmentalists that would...that is part of there day to day living. I don't know it adds that much more. You get supplies sooner in the Northwest passage. There are a lot of other factors that go into that whole supply chain. Interviewee 001 – Story #11

The same set of tradeoffs are considered in this next excerpt as well. The reflection pivots on the question of whether the Arctic is a local or a national problem with the same implications for this story reflecting a concern with a constitutive strategy and instrumental basis for legitimacy.

Yeah. Who is it local for? The Coast Guard try to get a lot of press out in the last... this past summer, where we escorted a Russian tanker into this little island over a thousand people to get them oil, or they're going to run out of oil because they're barge broke down, they're going to run out of it.[...] I didn't know about 310 million people in America that I need a billion dollar ice breaker to get this people and town their oil. I would tell you the pessimist in me would say, the 310 million Americans would mail them the money to buy luggage and go someone else. They need to have a \$2,000,000,000 ship to move oil to them. I just don't think we'd win that argument with the American public right now. I don't know how you do that and the budget declining time for it. Interviewee 002 – Story #14

This next set of stories deal with Narrative 4 which sees operation in the Arctic requiring specialized technologies. These stories favored an instrumental normative order for strategy and a constitutive order for their basis of legitimacy. By way of illustration, this first story discusses which countries will have icebreaker capabilities organically where the speaker sees the US falling behind. This is framed as a question of how most efficiently to allocate resources to minimize risk (instrumental strategy). The USCG sees its role as helping to inform the decision on what would be the most effective way to reduce risk (constitutive legitimacy).

Right now, we don't have a capability that's involved in that process of opening these things. Eventually, the Polar Star won't be ... it's thirty-five, forty years old, whatever it is. It's not going to be available to us. Healy, we launched that in 1999. It's already over ten years old, and it's a medium icebreaker. It's not a heavy icebreaker... Countries with heavy icebreakers are going to be the Chinas and the Russias of the world, and Canada, to a lesser extent. Some of the Scandinavians may have smaller ones. Interviewee 003 – Story #19

The role of USG is more evidenced in this second passage by the same speaker. The interviewee compares the need for icebreakers with the acquisition of multi-mission National Security Cutters. While there is an acknowledged need for icebreakers as a unique technology to operate in the Arctic, it is seen as not as important to reducing operational risk as having the National Security Cutters.

Icebreakers do two things for us primarily, the big ones—the medium and the heavy. They enable scientific research and they break out McMurdo station in Antarctica, both are things for the National Science Foundation. They also can protect U.S. sovereignty. They're good platforms for a number of sensitive missions. They provide good capabilities, but in the end of the day would I say we need three and three before we need eight national security

cutters? No way. If the Colorado Coast Guard asked me, "John, what do you recommend? Shall we continue to have eight national security cutters, or should we have three and three?" I would throw the icebreakers away, and I would get the eight national security cutters. You can do so much with a national security cutter, all year long. Interviewee 003 – Story #30

Narrative 8 follows the same split pattern as narrative 4 in favoring an instrumental normative order for strategy and a constitutive normative order for legitimacy. Narrative 8 is concerned with the need for USCG to plan deliberately in an environment which does not allow for it. The first passage talks about the roles of the strategy directorate in the USCG. The speaker describes the role of this group as increasing operational efficiency (instrumental strategy) by employing expertise of the USCG gained from operating in numerous different scenarios reflecting the use of a constitutive normative order to address legitimacy.

So I would say is that if we have a strategy directorate that's looking at these uncertainties, right now, we're looking at the underwater threat. We can at least read the tea leaves and let us know what they're saying. Maybe our expertise right now is in search and rescue and we know how to operate and enforce drugs, but what we're also seeing is we're seeing a lot of South American countries now saying, maybe we should legalize drugs. We're seeing our own states saying maybe we should legalize drugs. In 10, 15 years, the demand signals for your cocaine and marijuana as high as maybe synthetically produced stuff that's here at home. It's our job, at least from a strategic standpoint to put those signals out and when it comes down for resourcing, that they're looking at those as potential priorities in the future so they can build out the budgets for that. That's how we would tackle some of these uncertainties that happen or we're looking at. Interviewee 005 – Story #6

The same combination of normative orders is evidenced by another speaker reflecting on the need for strategy.

It would be very easy in this job to just work both those issues, work your inbox and call it a chore, but the third piece is having a strategy in place and having a vision for what victory should look like ten years from now based on the best information we have. I think you should be able to answer the question, anybody should be able to answer the questions for any issue, what's your strategy, what are the critical success factors, and what are the human resource levers you need to pull on? Those are the three things I think about with the Arctic, and I want to be able to answer every one of those. It starts with the strategy. Once you get that, you implement it. You get the critical success factors. People are everything, so what are the human resource levers? That gets into how do you build the incentives right so that when folks act rationally, which is what they're going to do for the most part, you have an optimal system in place? We got to work the inbox. We got to do our Council stuff. We got to be ready in the summertime. We got to start someplace on the butcher block. Get that done. Now that it's set, what does victory look like ten years from now? Let's start driving. Based on everything I've looked at, like I said, I think we actually started pretty good, but I don't know. Lessons learned have showed us different things. Interviewee 003 – Story #16

Narrative 12 focused on public perception driving decision making. Like narrative 2, this narrative saw a strong tendency for stories to favor a constitutive normative order in describing strategy and an instrumental normative order in describing a basis of legitimacy. It would seem

natural that this narrative is also concerned with the perceptions not only of USCG operations but, like Narrative 2, the public’s view of how closely of an issue the arctic is tied to the wider American interests as shown in this first story.

Absolutely, I think ... Go back to a talk about how does the average American see the Arctic issue, and the average American, I think, thinks immediately about he lower 48, and tends to forget about Alaska and Hawaii unless they're going on vacation. Interviewee 007 – Story #15

The second story is offered by the same speaker pointing out that while the USCG is not the only agency involved with operations in this region, it is the agency which will receive the majority of focus on this topic should negative attention be drawn to the region.

I think another thing that we are very concerned about this summer is should something happen, and news cameras be up there, what they're going to see are the [glow sticks 00:41:40] to Coast Guard. No matter how many federal Interagency partners are involved in the decision making on what goes on up there, it's going to be the Coast Guard that's in the forefront of the public view because we're going to be the boots on the ground in that area. For that reason especially, and the fact that we're the ones that are putting our resources and folks up there to operate, it's very important that we provide input into the policy making of this issue. I think you'll see in some of the documents that we've been putting forward to develop that expertise within our work force. Interviewee 002 – Story #25

H2.2. – Uniform Application by Narratives

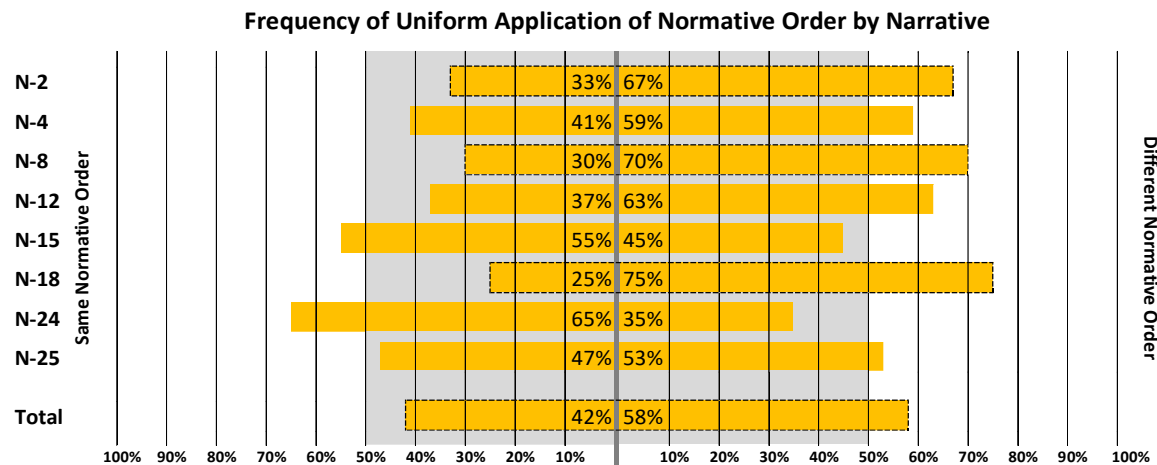


Figure 6 - Uniformity in Application for Narratives Invoking Normative Orders

Graph 6.0 continues the analysis of narratives invoking normative orders by looking at whether the same normative order was used when each narrative was used to describe both strategy and legitimacy. The left-hand side indicates that the same normative order was used (i.e., instrumental-instrumental or constitutive-constitutive) and the right-hand side indicates

where these orders were not uniformly applied (i.e., instrumental-constitutive or constitutive-instrumental). The trend resulting here reflects the same sort of outcome as Graph 3.0 that looked at individuals in that there is a tendency to prefer invoking normative orders in a non-uniform manner. Graph 6.0, however, suggests that this is even more so the case for narratives than it is for individuals. Of the eight narratives, three showed a slight preference for invoking normative orders in a non-uniform manner with another three demonstrating a strong preference toward invoking non-uniform normative order. Only two narrative orders showed a slight preference for using the same normative order to describe both strategy and legitimacy. Most significantly, the aggregate preference of all stories was to invoke normative orders in a non-uniform pattern with this tendency being demonstrated with a high degree of confidence.

In the majority of previous examples, the non-uniform application of normative orders is described. N-18 is the only narrative that appears here that did not receive attention in the previous set of graphs so deserve a closer look here. Narrative 18 argues that there are a number of innovative ways that icebreaking capability can be supplied. It was noted earlier in this paper that some of these methods included regulations or leasing options. This narrative is characterized by a non-uniform application of normative orders and if we refer to graph 5 we can see this has tended toward an instrumental normative order for strategy and a constitutive order for legitimacy for this narrative. This is reflected when some of these stories are examined more closely. Here is one in which the speaker is really considering how leasing might work and the challenge that this would pose in writing a lease broad enough to allow the USCG maximum use of the vessel while protecting the entity offering the lease.

So the other thing is, too, if you have a commercial lease, you're limited to what the terms of that lease are. So if you're leasing a ship to go down to Antarctica, and all of a sudden you need to go break out in Nome, Alaska, you know, because it's frozen in and there's no fuel, you can't just then turn, you can't break the lease and then go and do it. Are you going to build a lease that broad, I don't think anyone would want to sign it. So there's kind of staffing

and how you maintain it, I think, is really the big key. Then also just the use of the vessel, so there's a number of different things like that that we consider. When it comes down to it ... Interviewee 004 – Story #14

Referencing an incident that had happened earlier in the year, where a USCG was available to support a mission in the Arctic, this second passage reflects on what would have happened if that icebreaker has not been present. The speaker notes that there are always various options that may be available but those other options may not be the most cost effective for achieving the same ends.

I mean, that's an interesting case. Let's say that icebreaker hadn't been there. Let's say Healy hadn't been there to break out Renda, what would have happen would have been, we would have had to fly the heating oil or petroleum into the city. Does that mean people would die? No. Absolutely not. It means it would cost a lot of money...Yeah. There would have been other ways to solve that problem. Healy wasn't the only one. There was certainly an opportunity for the Coast Guard to help out and to do it cost-effectively. Interview 009 – Story #19

Discussion

This study tested two sets of hypotheses at both the level of the individual and the level of the narrative. The first set dealt with the question of whether a non-exclusive preference would be shown for a certain normative order. This showed not to be the case at all at the individual level and the case only once for narratives. What was seen, instead, was almost the equal use of normative orders in both individuals and narratives. This picture did get more complex when the study disaggregated which normative order was used to describe strategy and which to describe legitimacy. Again, individuals did not seem to have a clear preference but by contrast narratives did seem to have a clear preference. This is not too surprising as one would expect narratives to have a common structure and consistent bias allowing preferences to appear in a regularly recurring pattern.

The second set of hypothesis were interested in whether the same normative order would be used to describe both strategy and legitimacy. We find that in the aggregate, there was a statistically significant indication that this was not the case. Individuals and narratives frequently

used both normative orders in a single story. While this same pattern did exist for each individual and each narrative, it did not often do so with high confidence. This may have been due to the relatively small sample sizes for each individual or each narrative. While these results suggest that Pragmatist Institutionalism's use of "anchoring concepts" reflects a more accurate picture of how normative orders are invoked when compared to the Institutional Logics Perspective, two other questions arise from these findings. First, this study examines the difference in findings for individuals when compared to those of narratives. Second, it is asked whether the creation of new meanings as suggested by pragmatist institutionalism proves to be the case here as well.

Individual v Narrative Use of Normative Orders

This study showed that some pattern exists in the manner that normative orders are invoked by individuals and narratives. This pattern is matched by both individuals and by narratives for the most part when viewed from the perspective of demonstrating no clear preference for either normative order and demonstrating a non-uniform application of normative orders. One point of departure between the two units of analysis was when the question of a clear preference was disaggregated by strategy and legitimacy. While individuals continued to demonstrate no clear preference in most cases for both or one of these elements, narratives exhibited the opposite effect showing a clear preference for one or both elements. So while the resulting unclear preference in the aggregate for individuals resulted because each individual actually had no clear preference, the same aggregated result for narratives is actually due to different elements canceling each other's preferences out. One normative order and the other element showed a preference for the other normative order. So while both individuals and narratives show a non-uniform application of normative orders, individuals seem to balance the

two normative orders from story to story while narratives seem to take stronger positions with respect to clear preference.

This result is all the more surprising because the analysis for both individuals and narratives was based on the same set of stories. Each story was coded only once. The difference in these results is due to the organization of the data to reflect the different focus areas. This suggests that the remaining 17 narratives, not part of the analysis here, would not have demonstrated a strong preference at the disaggregate level which could account for the reason why individuals do not share a similar pattern. Only the narratives that were the most used were included in the study suggesting that the more prevalent a narrative, the more established it is in how clear of a preference it exhibits.

This may make sense in the respect that individuals are trying to balance both these elements but then narratives are trying to take strong positions to help facilitate dialogue. So some narratives can be said to be competing for dominance for their preferred normative order. Individuals, by contrast, are not each competing for their own ideal normative order but may be more accurately be thought of as trying to continually balance both normative orders in their decision making. This is reflective of March's point on ambiguity (1994). Individuals do not identify a situation and then apply an approach to that situation either from a rule following or rational choice perspective. This is because the ambiguity of their own preference or their own identity may be too great. Rather individuals engage in a process of meaning creation not to make decisions but because it is how people understand their environment. Decisions, by contrast, help in the meaning creation process by becoming another narrative in the process.

Meaning Creation & Re-Creation

Another resulting question from all of this is that if normative orders have a low degree of fidelity which is reflective of pragmatist institutionalism, shouldn't we also see other features of pragmatist institutionalism here? The most characteristic of these features is that normative orders, which they term anchoring concepts, are used more as a grammar to make sense of the world around them than fixed scripts. This means that normative orders are not only applied in a more ad hoc fashion but also that they are used to create new meanings through this combination and recombination. This was indeed something that appeared to be occurring when stories were reviewed. It is possible that different and expanded meanings existed within the interpretive process characterizing Pragmatist Institutionalism that could lead to other new meanings not anticipated in the original normative order.

Two stories are compared here to illustrate this point. Each story is offered by a different individual as they reflect on the nature of risk and how it is affected by public perception. Both stories were coded constitutive for strategy and instrumental for legitimacy. Both stories were also captured under Narrative 12 which is a narrative about how public perception drives decision making. The difference in the stories, however, go beyond differences in the events they use to illustrate the impact of public perception. They offer different avenues for understanding risk in different settings. The first story deals with considerations of the use of force in two different settings. The use of force in drug interdiction situations as seen as more acceptable than in the case of migrant interdiction. This is reflected in USCG policy but not restricted in this way by law. This policy is the result of public perception of acceptable behavior putting bounds on how the USCG exercises its authorities.

It's [assessing risk] different for whatever the problem is and just the example that comes to mind, I like to think of them and frame them, is we have two very different policies for when we interdict migrants and when we interdict drug smugglers. We are willing to accept risk and use our use of force on a drug smuggling vessel, yet we have that

same capability and we probably wouldn't use it on a migrant smuggling vessel, because the risk of collateral damage to a migrant outweighs, it's still a human life, but politically, it looks differently if there was some collateral damage to a drug smuggler. Where that may be acceptable, not on a frequent basis, but every once in a while, if there is something that may occur. Now you take that and you switch it, and now all of a sudden, a migrant receives some kind of collateral damage because we're using our same use of force, it's much different with the response. Interviewee 005 – #12

The resulting syllogism for this story may be written as:

The same action may be politically acceptable in one situation and unacceptable in another. Determination of whether something is acceptable is based on public perception. Public perception affects whether actions are public acceptable.

In the second story, the risk in question arose out of a discussion on how to balance low budgets that may lead to maintenance deferrals which increase operational risk. Rather than focus on the judgement of the USCG to make this determination, there is a recognition by this interviewee that the decision of the USCG to accept more risk from deferred maintenance will not be called into question until there is an accident. And when there is an accident, it will not matter if that level of risk was seen as acceptable by the USCG personnel in question because public perception will hold them accountable disproportionately for the failure.

...commercial vessels in the US by law only have to inspected every five years for safety for life saving and all those things. Coast Guard does it every two years. You know, you may be able to do it every five years until something happens....it sinks and they start looking at the standards. And they say, well, you use to do it every two years and now you do it every five years. You can say, "well that is what the law says" or you can say "you know, past practice was we thought it was prudent every two years and that is why we did it by policy versus law." It is not an issue until the ship sinks, passengers are lost and they go back and they start looking. So it is a little bit tongue in cheek but it acceptable risk is what you can get away with without getting called on it...working, people don't always see what happens when you differ maintenance. Maybe there is no immediate impact to deferring maintenance on items. And you can...so that would be another acceptable risk. But, when something catastrophic happens everyone wants to know why didn't you install, I don't know, fire fighting equipment in that boat house that burnt down. If you had done that, a lot of boathouses don't burn down. They can, they do, I am just trying to give some scope and character to the discussion. Interviewee 001 – Story #13

The resulting syllogism for this story may be written as:

Acceptable risk is largely shaped by public perception. Public perception focuses on catastrophic failure. Acceptable risk is largely shaped by catastrophic failure.

A purely instrumental concern for both elements as it relates to the narrative of public perception would anticipate that the public would be concerned with how the USCG executes the ends clearly laid out for it by congress in a neutral effective manner. The constitutive view of

this would focus on how public perception of the Coast Guards mission effectiveness is something that is debated through major milestones and how the Coast Guard expertise helps frame this issue. Neither of these scripts were used here. Rather both stories create a new sort of understanding of the relationship of public perception to their action by pulling from both normative orders. It is true in both examples that the agency is engaged not in simply executing pre-defined ends but is part of the discussion on what those ends should be either in the use of force or in how it allocates maintenance dollars. The basis of these judgements, however, is not based on their expertise or ability to educate either the public or congress but on a reactive basis to manage how they are perceived.

These stories go even further in creating potentially new meaning. Each story implies a different view of how acceptable risk is seen by the public. In the story about the use of force, risk is a balancing act. The same criteria apply in some cases but not in others because of societal norms that each situation differently based on what is seen as acceptable. In this view, the risk is derived from societal norms developed over time. The story about resource allocation, by contrast, sees the public perception of risk as reactive and underinformed. It is not based on societal norms but more so on the desire to reduce costs until doing so results in unanticipated and potentially catastrophic results. By using just these two stories, it is shown here that the expected meaning that normative orders would suggest are not how they are used. New meanings are created by using the elements of normative orders that would perhaps been otherwise unanticipated.

Conclusion

The lack of a clear preference for one normative order over another and the preference for non-uniform application of normative orders in stories suggest that the Pragmatist

Institutionalism perspective may reflect a more accurate view of how normative orders are used. Normative orders are indeed invoked but perhaps not as uniformly or consistently as suggested by the Institutional Logics Perspective. The discrepancy between individual and narrative use of normative orders is shown to have potential utility in meaning creation. The more stable and consistent form of narrative invocation of normative orders may help establish anchor points for individuals in process of creating shared meaning. The creation of meaning itself is also demonstrated. While there are numerous ways to interpret the different normative order in different settings new meanings of how and what the USCG does seem to emerge from recombining different elements of normative orders based on context.

Both Pragmatist Institutionalism and the Institutionalism Logics Perspective each represent the culmination of a robust amount of thought on social interactions. Pragmatist institutionalism represents a more interpretive tradition while the Institutionalism Logics Perspective is more closely aligned with positivist traditions. The findings of this study are not mean to suggest that one of these philosophical approaches to research is more accurate than the other in all cases. The more important lesson may be how it is that these two traditions can learn from each other. Pragmatist Institutionalism currently exists as more of a philosophy rather than operational theory. The disaggregation of critical elements impacting meaning creation in organizations such as strategy, legitimacy, identity, and authority are elements from the Institutional Logics Perspective which may help researchers to create approaches that employ the Pragmatist institutionalism approach. Pragmatism institutionalist can also be used to further erode the hard boundaries of the Institutional Logics Perspective as is already being done in some research (McPherson & Sauder, 2013). The next chapter provides some insights into the impact of these findings to existing literature and practice.

Chapter 6: Conclusion

Earlier chapters of this dissertation examine two meta-theories of institutionalism to develop a better understanding of how normative orders are invoked within the USCG in response to melting Arctic ice. Chapter one introduces the concept of normative orders as an important element in shaping administrative judgement. Chapter two examines how normative orders have been treated within the institutional theory research focusing on two meta-theories of institutionalism which offer different perspectives on how normative orders are invoked. Chapter three presents a methodology for exploring how normative orders are invoked using narrative analysis tools and framing the analysis around the two dominant normative orders of American government. The first of these orders is focused on the instrumental role of public agencies while the second order focuses on the constitutive nature of public agencies. Chapter four provides an overview of how melting Arctic ice has potential impacts for the USCG and how that issue has been framed over time. Chapter five presents the findings of the interviews conducted with USCG personnel to examine normative order. Within the context of the USCG case, it is shown that individuals do not invoke normative orders in a manner that demonstrates a clear preference for either of the two normative orders characterizing American bureaucracy. It has also been shown that individuals do not apply these normative orders in a uniform manner. The findings show a similar pattern for narratives with the exception that a clear preference does suggest itself if legitimacy and strategy, as two elements of normative orders, are considered separately. This chapter revisits the initial question concerning how it is that normative orders impact administrative judgement to derive lessons for both theory and practice.

Revisiting Intent: Administrative Judgement

This research began with the recognition that normative orders affect administrative judgement. Institutional environments impact how organizations receive legitimacy and support. Both legitimacy and support are critical factors for public organizations reliant on legislation for its authorities and budgeting (Moore, 1997). If institutional environments exert pressures on organizations, then normative orders help provide insight into how those pressures manifest themselves. Understanding how normative orders were invoked in practice would help scholars better understand the conditions of administrative judgement. There are three ways that this study contributes to a better understanding of this area: how it is that individuals cope with ambiguity, the need to balance rather than optimize legitimacy demands, and how innovation occurs to ensure continued support and legitimacy.

The first contribution is based on the distinction made by March (1994) between uncertainty and ambiguity. Uncertainty, for March, is something that could theoretically be overcome eventually through more information and more analysis. Ambiguity, by contrast, was something that could not be remedied just through better information. Ambiguity demands interpretation and reliance on system of symbols for meaning. The USCG's case is characterized by ambiguity in that it represents a scenario without precedent meaning value judgements have not yet been established. While Arctic operations are not a new phenomenon, the growing scale and unique operating environment forces the USCG to reconsider how it operates in this region and balance these demands against the needs of other regions. This includes not only considerations of efficiency but also delves into asking what it is that the U.S. wants from an expanding Arctic ocean. Just as had been described by March, normative orders are a means to help develop an understanding of new domains. What is unique is not that ambiguity is reframed

to fit existing normative orders but that normative orders are being used in multiple ways and combinations to cope with ambiguity.

The second manner that understanding normative orders helps with a better understanding of administrative judgement is its challenge to the idea that decisions can be optimized. The operating environment cannot be reduced to a single optimization calculation. It is not sufficient for the USCG to state that its only objective is to respond as efficiently as it can to established ends defined for it, nor can it spend all its attention on working to help the search to define desired ends at the expense of continued operations. The institutional environment demands demonstrated attentiveness to both efficient operations and a vehicle to defining the public good. This runs contrary to approaches such as rational choice which focus narrowly on utility maximization. It does not make sense to try and reduce everything down to maximize either the bureaucracy's instrumental or normative character as both of these needs to be balanced not maximized. Maximizing one of these elements may be done at the expense of the other.

Finally, we can see that there are multiple levels of symbols operating in a manner similar to what was described in Pentland's (1999) proposed four levels of narratives. This model suggests that normative orders existed at deeper levels (the "generative mechanism") while the more superficial levels are open to reinterpretations. These interpretations and reinterpretations allow for the flexibility in adapting to changes and finding new solutions. This reflects the Pragmatist Institutionalism view of how innovation occurs as described by Berk & Galvan (2009). This suggests a world where people are not bouncing between existing polls but one where established anchors are used to constantly create new meanings and approaches based on common base lines.

Returning to the case of the USCG, one can see that normative orders allow administrative judgement to function. The fact that there are multiple normative orders does not inhibit decision making but allows space for the USCG to operate with some degree of discretion. Despite the lack of precedence in the Arctic case, several approaches were applied to how to address the challenge of melting Arctic ice and what the USG role ought to be there. These approaches had elements of both normative orders but could not said to be reflecting one order completely at the expense of the other. This last point also contributed to new and innovative approaches to the challenge based on the unique context of this agency in relation to the Arctic.

The Idea of Fidelity

The idea of fidelity is something that was introduced in this dissertation as a tool to help distinguish how normative orders are invoked according to two different traditions. In some ways, fidelity is an odd concept in that it takes a middle ground approach to an element of social theory: can intersubjective elements such as normative orders be addressed through a positivist lens or must they be kept strictly in the domain of interpretivism. This is a philosophical split that cannot be easily remedied. Rather than reconciling, however, this dissertation borrowed a feature of Pragmatist Institutionalism by treating these two viewpoints not as hard tradeoffs but as two polls existing on the same spectrum. At one end of the spectrum, normative orders may be thought of as invoked in a fixed and stable manner. This view would exist where there is little room for discretion. The other end of the spectrum exists where the space for discretion is so wide as to have little bounds of decision making. The reality is that most cases may fit somewhere in the middle of these two polls based on the particular context. It may be better to treat fidelity as a variable feature in social dynamics rather than a fixed element.

Returning to the particular case of the USCG, one can see how a strong assumption on fidelity would have changed the analysis. An assumption of high fidelity would have sought to demonstrate the presence of one or another normative order. Perhaps each set of concerns represented by these normative orders would be traced to demographic or positional characteristics to determine if a correlation between the dependent and independent variables could be established. Such an approach, however, would have missed the meaning creation undertaken by individuals. An assumption of low fidelity would have, by contrast, overlooked the important role that was played by narratives being invoked in a more consistent manner than individuals.

Implications of Research

Implication for Scholarship

There are two ways that this research has had a potential impact on the current institutional literature. The first of these is to revisit a common theme for institutional theorists relating to the question of the balance between agency and structure in social dynamics. Individuals are seen as either having an unrestricted agency or otherwise having no agency at all but responding to the “iron cage” of institutional pressures. This research would suggest, as noted earlier, that agency is a significant but not in an unlimited fashion. The iron cage of institutional pressures is potentially more flexible. Agency occurs within certain bounds but since the underlying symbolic system of these institutional forms is neither uniform and is subject to change, this requires active participation by individuals. Answers are ultimately not discovered or consented to but invented by individuals.

The second point for scholarship is to expand the idea of decision making beyond the focus on a single decision point. Individuals are indeed constantly using normative orders to

make sense of their environment. This, however, is not limited to selecting between different courses of action. The decision-making process does start much earlier as noted by Chisholm (1995). Framing becomes incredibly important as the arrangement of normative orders in earlier stages will help dictate search for alternatives and finally the alternative selection. The positivist insistence that understanding decisions is secondary to a model's predictive power (Friedman, 1953) is in danger of imposing a greater deal of rationality onto a situation than is practical. The reality is that the course of action ultimately pursued may not even be considered at the outset of the decision making process but created later as new meanings are created.

Implications for Practice

While the previous set of implications are useful for understanding implications for other researchers, they may not have immediate resonance with practitioners. Practitioners have been seen not as a useful source of information of public administration research but also an important consumer of such research. This section provides some additional reflections on how the findings of this study may inform practice. The discrepancy between how individuals invoke normative orders and how narratives invoke normative orders has been a recurring focus of the findings. While strong positions with respect to normative orders are useful as a means to communicate as seen in narratives, successful decision making arises out of a greater tolerance for nuance in how normative orders help create understanding around a problem and inform decision making. This draws attention to the fact that there are perhaps two sets of processes. The first is the one we actually use to work through a problem. The second is what we communicate to rationalize that process. This binary explanation is well aligned with the sensemaking literature where action is only understood after it has occurred.

A second implication is addressed to those practitioners who are interested specifically in institutions and institutional management. Practices, rules, norms and customs are understood to be important elements of managing agencies which may lead to interest in institutional design from a top-down approach. The research suggests, however, that normative orders that underlay these institutional forms are used in a more ad hoc fashion rather than as prescribed. A new norm may be enforced, in other words, but it may not fit into a larger problem solving framework eliciting as a result ritualistic compliance or perhaps gaming of the new institutional form. Potentially more productive institutional change can be pursued perhaps through a bottom-up approach using the idea of proto-institutions for instance. Proto-institutions identify those institutional forms that have received some traction in a localized context which have the potential to be generalized to the broader sector. Such proto-institutions suggest that at some sort of successful pairing between the institutional form and the associated symbolic system has been achieved in some real-world context.

Finally, these results seem to underscore the lessons for leadership already provided by Philip Selznick in *Leadership in Administration*. Selznick points out that institutional leadership should be distinguished from management. The latter is concerned with the task environment of the organization while the former is attuned to its institutional environment. The business of leadership, in other words, is to attend to the institutional forms and the associated normative orders that infuse the organization with value. This may be done, as noted by Selznick, even at the expense of task oriented organizational practices. The institutional leader in this role would be expected to invoke normative orders in a manner more aligned with what has been observed here with narrative rather than individuals. It is expected, in other words that leaders would invoke a clearer stance when invoking normative orders.

Limitations

This research has presented an approach to studying the idea of normative orders by combining two existing meta-theories of institutionalism. This study may provide a new avenue for research but it is not without its limitations. The first limitation is that the research has relied on a single case study. This poses certain difficulties in determining whether the findings here are unique to this particular case or whether they can be generalizable to other contexts (King, Keohane & Verba, 1994). This was a decision consciously recognized early in the research design and was accepted as a trade-off given available resources. Increasing the number of cases would have meant a reduction of time available to examine interviews closely which is necessary to provide insight at the micro level. Each of the meta-theories addressing normative orders claim to explain micro level processes of normative orders therefore this is the level that the analysis needed to engage.

The other limitations presented in this study was the limited number of interviews conducted (nine) leading to a restricted sample size. Larger sample sizes would make it easier to determine if findings showing variations in clear preference and uniform application of normative orders were statistically significant. This limitation, however, was largely due to limiting interviews to a portion of the USCG population to reflect those individuals most directly impacting thinking on the impact of melting Arctic ice below the executive level. Increasing the number of interviews, however, would have detracted from a focus on where the discussion on the impact of melting Arctic ice is most relevant for this study.

Several strategies to increase observations were recommended by King, Keohane & Verba (1994). Among these recommendations was shifting the unit of measure for observations. In this case, this means shifting the unit from individuals to the stories themselves as the

observation. This resulted in 290 observations averaging about 32 observations for each individual. These observations could then be aggregated for the entire population or to each individual. These observations could then also be aggregated by narrative to provide an alternative view of how those observations provide insight into invoking normative orders. Such an approach would allow the analysis to remain sensitive to context.

Future Research

Future research can help to address some of those limitations by expanding the application of this approach to other contexts of public agencies. Further research may validate this approach in other federal agencies to determine if similar results are found. The idea of a unique set of normative order for American Bureaucracy, however, need not apply only to the federal level but may also be tested at state and local levels of government as well. Going even further, the approach may be applied to public bureaucracies of other agencies that either validate the findings of this study for other types of government systems. It would be helpful, moreover, to see what other sorts of innovations can be employed to further meld pragmatist institutionalism and institutional logics perspective to create useful results and address methodological problems such as the low sampling size as noted earlier.

This research has also operated under the implicit assumption that the USCG operates well and therefore has viewed the use of normative orders as observed in this context as desirable. It would be useful to test the normative desirability of the pattern of invoking normative orders observed here. Additional research can test the validity of this assumption by comparing the results of situations where low fidelity to normative orders is displayed and where a high fidelity to normative orders is displayed. A context of high normative order would be anticipated to lead to poor results as stricter adherence to a single normative order overshadows

the task environment. This line of inquiry may help enrich the current research on deinstitutionalization (Oliver, 1992) which is seen as a stage necessary for institutional work (Zietsma & McKnight, 2009).

The Institutional Logics Perspective recognizes elements of normative orders that extend beyond strategy and legitimacy that are also important to understanding organizations. The high or low fidelity characteristics of these elements could help contributed greater understanding to organizational behavior. Lok (2010), as one example, focuses on the role of identity in changing normative orders. Ocasio (2010) similarly focuses on the concept of attention as it is shaped by normative orders. Both studies are written from an Institutional Logics Perspective assuming a high level of fidelity to normative orders. Similar analysis may lead to different results that assuming a lower level of fidelity to normative orders.

Finally, so much of this research has hinged on the concept of fidelity. Fidelity itself may be the object of future research to see if this can be replicated by other researchers. It may also be a useful way to bridge some of the differences between different approaches to narrative analysis that puts positivist and interpretivist approaches not as tradeoffs but along a spectrum.

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APPENDIX A: Competing Logics Interview Questions

Increasing Mission Requirement - “The gradual retreat of polar sea ice, combined with an expected increase in human activity—shipping traffic, oil, and gas exploration, and tourism in the Arctic region—has increased the strategic interest that the United States and other nations have in the Arctic. As a result, the US Coast Guard, within the Department of Homeland Security (DHS), has responsibilities in the Arctic, which are expected to increase.”

Coast Guard: Observations on Arctic Requirements, Icebreakers, and Coordination with Stakeholders
GAO-12-254T December 1, 2011

Questions

- I. How long have you been with the Coast Guard?
 - a. How long have you been in your current position?
[Opening introductory question.]

- II. What is at stake for the United States in the Arctic?
 - a. Who are the relevant actors nationally and internationally?
 - b. What are the risks/benefits?
[This is a simple question to get the interviewee comfortable. It is meant to generate thinking about the context of melting of Arctic ice. This line of thought establishes the general parameters of what the interview will draw on to answer the remaining three questions.]

- III. How does the USCG mission set relate to the increasing activity in the Arctic?
 - a. How does NSPD-66, for instance, affect this position?
 - b. Does the USCG have a national security role here?
 - c. How does this mission set relate to the USCG’s other mission sets?
[This question starts to pull in the general context to a more specified Coast Guard realm. It removes more general concerns from those that will be necessary to articulate what factors become part of the Coast Guard decision making process.]

- IV. What are the consequences to USCG operations from the expanding mission set? Is there a problem? What is the problem?
 - a. Is there a decision point here?
 - b. Are there particular concerns?
 - c. How much can the USCG shape this discussion?
[This is the first key question. It focuses on an articulation of WHAT the problem actually is. Is it, for instance, a technical problem of allocating resources most efficiently or a normative question of what “ought” to be the role of the USCG in the Arctic.]

- V. What are the available alternatives for addressing the above problems? What alternatives appear to be “better”?
 - a. What needs to happen in the future?
 - b. How does this come about in the future?
 - c. What are the major obstacles in the future for this direction?
[This is the second key question. It aims at shedding light on how alternatives are identified and what criteria are used for determining if they are “good” depending on the type of logic that is operative.]

- VI. Thank you for your time. Is there anyone else you can think of that may be helpful for me to interview?
[Wrap-up to the interview.]

APPENDIX B: Recurring Narratives

- N1** – Unique expertise is required for operating in the Arctic.
- N2** – The Arctic is a US national interest.
- N3** – The Arctic is a pristine environment needing environmental management.
- N4** – Arctic operations require unique technology.
- N5** – It is more difficult to operate in the Arctic because of its harsh environmental conditions.
- N6** – Working in the Arctic is a speculative enterprise.
- N7** – Presence is needed in the Arctic to assert claims and protect sovereignty.
- N8** – Getting to deliberate planning is needed but not possible in the USCG.
- N9** – Governance structure are needed in the Arctic.
- N10** – There is major resource competition in the Arctic.
- N11** – Catastrophic events lead to change.
- N12** – Public Perception drives decision making.
- N13** – Prevention is better than response.
- N14** – Many stakeholders are involved in the Arctic.
- N15** – Cooperation and Consensus should be achieved wherever possible.
- N16** – Placing assets is an important decision.
- N17** – Sharing assets is an important Decision.
- N18** – There are innovative solutions for icebreaker requirements.
- N19** – Groups will act in their own self-interest.
- N20** – The Coast Guard is a multi-mission agency.
- N21** – Infrastructure costs in the Arctic are high.
- N22** – Timing is important for icebreaker acquisitions.
- N23** – More activity means more potential danger.
- N24** – The Arctic is just like every other unfunded mandate.
- N25** – Priorities will attract resources.